

**CASTE DISCRIMINATION IN
RURAL LABOUR MARKETS IN ODISHA**

*Thesis submitted to Jawaharlal Nehru University
for the award of the Degree of*

DOCTOR OF PHILOSOPHY

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DECLARATION

I, **Chandi Charan Mehentar**, do hereby declare that the thesis entitled "**CASTE DISCRIMINATION IN RURAL LABOUR MARKETS IN ODISHA**" submitted by me for the degree of **DOCTOR OF PHILOSOPHY** is a bonafide work and it has not been submitted to any other university for the award of any other degree.


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*Dedicated to
My Beloved Parents
Maa & Baa*

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LIST OF ABBRIVIATIONS

BCs	Backward Castes
CAL	Casual Agricultural Labour
CNAL	Casual Non Agricultural Labour
FCs	Forward Castes
GoI	Government of India
GoO	Government of Odisha
HC	Higher Castes
ILO	International Labour Organisation
INGO	International Non Government Organisation
ITUC	International Trade Union Confederation
LC	Lower Castes
L&T	Larsen and Toubro
NCH	Non Cultivating Households
NREGS	National Rural Employment Guarantee Schemes
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organisation
OBCs	Other Backward Castes
OTH	Others
SCs	Scheduled Castes
SEA	Self Employed in Agriculture
SENA	Self Employed in Non Agriculture
STs	Scheduled Tribes
UNDP	United Nation Development Programmes

INTRODUCTION

1. Introduction:

With economic growth and structural transformation, rural economies have been undergoing significant changes. Several changes in the rural economy of developing countries have been discussed in the recent literature. Despite relatively robust growth in per capita income, rural-urban disparities¹ and inert-personal inequalities are on the rise in many developing countries². With declining contribution of agriculture to the GDP, and relatively slow movement of labour from agriculture to non-agricultural sector, the gap between per worker GDP in agriculture and that in non-agriculture has been widening in agriculture. Several changes in the input and output markets, while opening new avenues for some farmers, have further aggravated the agrarian crisis in many parts of India (Mishra and Reddy, 2009:12). This crisis has affected different regions and different sections of the peasantry in an uneven manner³. Further, with the expansion of rural non-farm employment and increase in migration the new opportunities for employment are unequally accessed by households and individuals. One such axis of unevenness and unequal distribution of opportunities is to stay in the caste system. In India, societal institutions exclude, discriminate the deprived groups on the basis of group identity⁴ (Thorat, 2008). In this backdrop, it is important to examine the role of caste as an institution in the rural labour markets.

In the market economy framework, occupational immobility would operate through the restriction to entry to various markets such as land, labour, capital and entrepreneur. The theoretical economic interpretation of caste system does not recognise caste as a system of

¹Rising rural-urban disparities have been reported in many studies including Yang (1999), Ding (2002), Deaton and Dreze (2002).

² China is one of the highest inequalities societies in the world. The inequality rises the country like Nepal, China, India, Bangladesh, Sri Lanka and Pakistan (Samaraweera, 2007) In Pakistan income inequality increased although consumption based poverty falls from 57.9 per cent to 29 per cent during 1998-99 to 2013-14. The multidimensional poverty (which include education, health and living condition of people) also fall of Pakistan from 55.2 per cent to 38.8 per cent from 2004-05 to 2014-15 (Junaidi, 2016). Irrespective of fall in poverty from 56.7 per cent in 1992 to 31.5 per cent in 2010, income inequality is rising in Bangladesh due to general inflation and food inflation. The inflation increased the consumption expenditure of households more than the rising income of the households in the last one decade. Despite the rise in GDP of the country income inequality rises of the country (Ferdousi and Dehai 2014).

³Utsa Patnaik (1982) argues that labour working for wages is an essential condition for the development of capitalism in agriculture but it is by no means a sufficient condition for that.

⁴ Group identities such as caste, ethnicity, religion and gender.

social and economic governance, rather it is determined by the religious ideological notion, customary rules and norms which are unique and distinct (Akerlof, 1976; Scoville, 1991; Ambedkar, 1936,1987). The economic organisation of caste system is based on the division of people in certain social groups. Economic and social rights of each of the individual groups are pre-determined by birth and it is made hereditary. This system is one based on *graded* inequality of rights, and it has several implications for inter-generational mobility.

Labour market discrimination can occur in hiring because they are different in some non-economic characteristics such as caste, race, ethnicity and religion. Market discrimination will generate a market failure, which adversely affects the economic efficiency and economic growth of the society. The caste system in the rural society forces people to be part of groups on the basis of traditional occupation which is fixed and pre-determined. Economic discrimination makes the market failure in the imperfect labour market and creates a segmented market. Therefore the two economic activities i.e., like imperfect labour market and less investment in agriculture affect the economic growth. In the cyclical process of discrimination and market failure emerged in this way, a consequence of market failure due to discriminate and that discrimination due to the imperfect labour market (Thorat, 2010:10). One of the important negative outcomes of the caste system is factor immobility i.e., involuntary unemployment in the lower caste and voluntary unemployment in the higher caste.

The discrimination on the ground of caste, gender, race, religion etc. will be reduced in the society through revolutionary reform. So the social and economic reform will be needed to curb discrimination (Piketty, 2016:16). He also argues that the inequality in both developed, as well as developing countries, are widening. The Gini Coefficient increased in Bangladesh from 1973 to 2010, based on households income and consumption expenditure. The trends of inequality increased during the tenure in rural, urban and total. The income Gini coefficient increased annually 0.77 per cent of the country where as consumption Gini Coefficient increase less than the income coefficient (Matin, 2014). Growth and inequality have a significant positive impact on the poverty reduction of Pakistan from 1992-93 to 2007-08. The effect of growth on poverty reduction more than the inequality. The growth of the country substantial reduction of poverty in rural areas more than the urban areas (Cheema and Sial, 2012). Income inequality in America shows that top 10 per cent of people earn around 47 per cent of country income where as bottom 50 per cent of people income share only 13

per cent. The rest of the middle 40 per cent of population share of income 43 per cent of country total income. It happens due to market forces as well as social bondage. Some people are earning less due to less experience, fluctuation of market forces and restriction to entry to some occupation in the name of racial discrimination (Bachman, 2017). My view above the Article: As per as the data of OECD (Organisation for Economic Co-operation and Development) tax and transfer reduce inequality in many developed countries. The average Gini Coefficient of OECD countries 0.41, whereas in America it was 0.47 before imposition of tax and transfer to poor. But after imposition of tax and transfer reduce inequality by falling Gini Coefficient 0.39 for America and for OECD 0.31. So the tax and transfer reduced American inequality by 18 per cent, compared with 25 per cent in Britain, 29 per cent in Germany and 34 per cent in France (C.K., 2017).The gap becomes more and more between the rich and poor. The inequality leads to a regional imbalance of progress some section of people in a particular region. In India, top one per cent of income earners hold 22 per cent of country's total income in 2014, whereas bottom 50 per cent of income earners capture only less than 28 per cent. The growth of the income earner in India from 1981 to 2014 indicate that top one per cent income holders income increase more than the increase in income of bottom and middle income earners (Chancel and Piketty, 2017).The problem of inequality is deeply rooted in the legacy of the caste system in India. So the caste based discrimination in labour market also become an important dimension of widening inequality.

Caste-based discrimination in the labour market is not only inefficient for the economy but also socially unjust as it perpetuates the structures of social inequality. However, some scholars have argued that caste system has significantly declined as a result of modernization of the economy and other social changes (Srinivas, 2003); others point to the continued persistence of caste disparities in education, income and social networks (Desai and Dubey, 2011).

1.1 Statement of the Problem:

The diverse nature of informal labour market in India causes the rise of productivity not necessarily increase the wages. Thus the labour market operates through the different market forces and social regulation. The mobility of labour from informal to formal sector in India forbidden by two angels. First, the creation of employment in formal sector not much increase as much as increase in adding labour force of the country in every year. Second is

the restriction to entry for formal market forces from skipping the work in the informal sector. Increased in capital mobility and labour productivity will increase employment in the formal sector in the country. It focuses on the establish of labour intensive industries via the capital mobilisation solve the problem of unemployment and increase employment in the formal sector. Thus the capital mobility solves the problem of the rural labour market on employment generation of the country (Marjit and Kar, 2009). Characteristics of labour markets include the wage rate, working house, security of work, efficiency and working experience, bargaining power and labour union.

In India, both farm and non-farm employment opportunity slowly change with change the wage rate of the rural labour market. The wage rate rises due to rise the productivity of labour and change the sectoral occupation from farm to the off-farm sector. The share of employment in agriculture sector declined from 78.43 per cent 1993-94 to 67.96 per cent in 2009-10. But in the real term wage rate on that period for rural male worker increased on the rate of 2.69 per cent per year, while non-farm wage rate increase less than the farm wage rate. Employment generation in the non-agriculture sector is not much increase in India rather than employment in non-farm sector increase over the period decline employment in the agriculture sector (Chand and Srivastava, 2014).

In past few year employment in rural agriculture sector fall rather than lives in rural areas. In the given period of time labour supply to agriculture is not imbalance to the demand of labour, but due to the heterogeneity factor among the labour unemployment exist in rural areas. This heterogeneity in rural areas emerges from the different social characteristic of labour like how much educate or belong to which caste, religion or gender. So this biological, as well as physiological measure of agriculture labour in rural areas, work in different wages as well as length working hour, social security etc. This creates the gap between one section to another on the economic as well social and it is continue to the any agitation emerge for prevention of this process.

The regional imbalance and diverse nature of employment in a different state on the employment and wage rate of agriculture as well as non-agriculture sector bring the seasonal and long period migration among the rural youth. The poor state like Odisha, Jharkhand, Chhattisgarh and Bihar, people are migrating to another part of the country for an employment opportunity and better wage rate. This is some extent create the shortage of

labour in rural areas on the farming period. So the wage rate for the specific period of time increase and it again comes to the village level wage rate in the other period of time.

The inequality in assets, employment and wages in the society has a long history, and the differences in social and economic status often get reproduced across generations. The public steps toward reducing the gap of inequality were not successful in some regions than others. So the discrimination got strengthened in these areas over the generations. The effective interventions for the improvement of the disadvantaged groups not only reduce the inequality in the society but also reduce poverty. Poverty has both forward and backward impact on the discrimination in labour market.

Fragmentation of labour market along with social identity creates the discrimination of the marginalised groups. Discrimination exists with *unequal treatment as equal* i.e., this is the major problem in the society. If discriminated is based on the basis of caste, Gary Backer say this type of discrimination exists only in the short-run, but not in the long-run. He says in the long-run caste-based discrimination disappear. Recent studies on the Indian labour markets suggest that caste-based discriminations continue to be an important aspect of the Indian labour market.

The fundamental concept of reservation system emerged due to the huge inequality among the two groups in the given region. So Ambedkar tries to reduce both social and economic inequality in Indian society by reservation policy to uplift the depressed caste and can walk with other equally in the mainstream of society. But recently Haryana Jats and Rajasthan Patels demands they need reservation or quotas. Although they are most powerful and economically strong and treated as dominant caste in this region (Jodhka, 2014). They are not backward with respect to landownership, assets holding and a government job. The demand for quotas mostly related to unable to compete for the higher caste in urban areas and shift their occupation from agriculture to non-agriculture due to today agriculture not provide much profit to them (Deshpande and Ramchandran, 2017).

This study attempts to examine the role of caste in the rural labour market in Odisha. While there have been some recent attempts to capture caste discrimination in the urban context, it is generally presumed to be present in the rural context. However, rural markets are changing with time and caste discrimination may not be present equally in all markets. Although various input (land, labour, credit, fertiliser etc.) and output (paddy) markets have been studied, the main focus of the study of discrimination in the labour market, as most of the

lower caste and Dalits in the study region depend upon labour market for survival⁵. A detailed analysis of caste discrimination would help us in identifying the conditions under which it prevails, and possible ways through which it can be eliminated.

The focus of the study of rural labour market predicts that the underdeveloped states like Odisha where massive workforce come under the rural areas whose main occupation as casual labour or daily labour. Apart from the caste-based distribution of daily wage worker engagement in the different occupation across the social groups and the earning remuneration gap between the caste also measure in this study. The study tries to find out as per as demographic composition of the population across caste how much of agricultural labour work as a daily labour for the main occupation. What are the interlinked relations on the access to other facilities within agriculture and outside agriculture in the village? If the workers get different wages for the same work what are the reason for getting fewer wages in comparison to other? Otherwise, if he got more wages, are they more work than others or are treated as unequal in the location of work? Is there prejudice against employing of lower caste in labour market? So the present study analyses all these issues related to the agricultural labour market in the two dimensions: *exclusion* and *exclusionary inclusion* or unfavourable inclusion.

So in the rural labour market diverse nature on employment and wage rate create the fragmentation among rural people. On the different type of work and working condition of rural labour categories them as high and low level worker. This divides the society on the work or occupation. On the long period of time, it becomes the occupation of the specific groups or caste. So in the rural labour market is capture by the work or activities related to the caste which is created by the village or local place where he belongs. In the identity of labour is not work out of the village where he can freely do any work rather than any restriction. So the present study is important on the ground of discrimination on caste based on occupation, wage rate and interlinked to other labour characteristics in rural areas, which is not discussed by other researcher like working condition, access of credit, tenancy and asset holding.

⁵As per the Population Census, 2011, 24.52 per cent of SC main workers in rural Odisha were cultivators and 38.37 per cent were agricultural labourers. For all the workers, the share of cultivators was 13.83 per cent; and that of agricultural labour was 21.65 per cent.

1.2 Literature Review:

Barbara Harriss-White (2003) has argued that the economy of India is socially regulated. The divisions and discrimination on the basis of caste, religion and gender perform new 'regulatory functions'. Most of Dalits and tribals work in the informal economy. The informal economy may not be regulated by the government or the state, but it is socially regulated. In this social regulation caste and caste-based organisations play an important role. Thus old identities do not go away with economic progress, rather such identities acquire new meanings and functions.

As per as the introduction of the caste system of India based on mainly in Hindu religion as that like in the top stay Brahmins, then Vaishyas, Shudras and Dalits. As per as the hierarchical chain of caste strata they are engaged in different work. Brahmins are worship in the temple and treated as priests in the society, Kshatriyas were doing solders and army to save the province, Vaishyas are doing business and trade and shudras are doing cultivation and care cattle. Dalits are treated as untouchable in the society and they are mainly working for the above caste and engaged like menial work i.e., washing toilets, cleaning drains and garbage, rag pickers. But in 1949 our constitution mentioned that treating untouchable as an illegal offence and should be punishable. According to the caste system occupation is fixed. This system creates a segmented market and monopolist market which is forced to immobility of factors like human labour, capital and entrepreneur across caste. So the labour and capital do not shift from one occupation to another occupation even if there is the difference in wage rates and rate of returns. So the factor immobility shows the gross inefficiency of resource allocation and its economic outcomes (Ambedkar, 1936; 1987).

Ambedkar mentioned that caste system very closely associated with the religion, for that eradication of caste based discrimination not possible without annihilating the notion of religion thinking about higher caste and lower caste. So the caste system does not solve by the inter caste dinner and inter caste marriage, rather caste system must destroy the religious notion on which caste was founded. The communal problem of the Indian provinces was featured by the social as well as economic discrimination in the name of caste or religion. This community economically backward, socially degraded and educationally backward. They have no any dignity on the representative, government facilities, no guarantee of justice and equal opportunity for progress. Ambedkar argues about the solution of the communal problem through the separate electorate by a representative to legislation, executive and

representation to service (Ambedkar, 1945:11). By the balanced representation no one community monopoly take the decision of the development of the state which is bias to support the community which he belongs. The dominant nature of one section people to other completely eliminated both in the states well as provinces. He argues about the representation for that the representative will better represent to the assembly for development of the community. The political majority is always accepted for the decision making and it is not rebelling against the decision. He also points out that communal majority exist in the society for the long tenure and one can destroy but cannot able transform it. It is fixed in its attitude but the political majority is not fixed. The political majority may change time to time and people can change their representative. All are benefited as per as the relative majority on the process of representative by electorate system. By this Ambedkar want to established equality in the society through the various principles (Ambedkar, 1945).

The notion of thinking on the caste emerge from the religion perspective mainly from Hindus. The fundamental goal of constitutional arrangement for electorate representative is not much progressive and uplifting the lower caste from the evils of untouchables. The spiritual believe and religion faith of Hindus in Indian society work in two angels. One is the higher caste people bind the lower caste people in the name of religion and other is by this religion society become divisible on the name of work and occupation. As per as the economic indicator caste based inequality exist due to their backwardness and this backwardness help to sustain the caste discrimination. So by the social and economic vicious circle lower caste people passes their life generation by generation. The voice of common people against caste discrimination sometimes not reaches and they think it will be better for me to leave from the agitation. Within the lower caste inequality also is become a problem in the society where they are able to get the constitutional benefit and become outlier within the caste. So the caste-based discrimination persist in Indian society by the process of social rule and regulation which is determined by the dominant class of the particular region.

Caste-based and group-based hereditary system create the huge gap of progress all section of the population in the society. Against this one section of the society belonging to upper caste performing the whole states in his hand and benefited from the growth process, and dominance the society/states politics, economy and culture. That is the crisis of democracy because large sections of the people which are poor or depressed not participate in both political and economic sphere. In the context of Odisha, for the last fifteen years, caste and class-based dominance have been long enduring (Mohanty, 2014). A high caste and

middle-class combined dominate the economy and politics in contemporary Odisha. Those who are dominated include poor artisans, poor peasants and landless agricultural labourers. Among them, most belong to Dalit, Adivasi and lower caste groups.

Poverty in Odisha is highly spatially and socially concentrated. Poverty rates are much higher in the southern and northern regions (broadly interior Odisha) and these are the districts which have a very high share of SC and ST population (Mishra, 2016). On the other hand, the regional disparities increased after the 1990s in a northern and eastern part of India. The economic inequality also rises within the states on the basis of per capita expenditure, real wages of agricultural labour, per capita income. The rise of economic inequalities due to in rural areas real wages of agricultural labour do not increase as much as increase the per capita gross domestic product. So it is in the future creates the more gap between the different occupational groups of the states (Deaton and Dreze, 2002).

The relationship between economic prosperity and caste discrimination is complex. Even in the developed green revolution region, the agrarian transformation in Punjab from the earlier period of time on the progress of the farmer state government taken so many steps. But due to social boundaries and jajmanirelation, certain groups called untouchable or lower caste not get the benefit from the state. The caste system of the state, as well as different part of the region of India, worked as occupation based and the diversification across the occupation is not possible in this region. So some section of people on the name of traditional occupation pushes to the bottom of the society via on the name of caste or groups. They are institutionalised through the domain of prevailing agrarian structure of the states or village. So being a landless the occupation of the groups bound to be on the polluted work like picking up dead-cattle, work in sweeping, washing of latrine etc. So the untouchable among the groups rise instead of fall on the name of occupation, due to in the society from this occupation are treated as unclean and pollution work (Jodhka, 2002)

The practice of untouchability also continues prevail in the rural society. The social hierarchy transferred from one generation to another in each of the sub-caste as well as caste. But after some tenure, some section of people progress and try to leave the caste boundaries and creates the new sub-section like in Maharashtra Mangs (sub-caste of Dalits from Maharashtra). So the identity of this section change as changing the status. but the other section of this groups is treated like as untouchable. So same group of the people are treated differently under the practice of untouchability (Guru, 2008).

The informal neoliberal politics in Gujarat promoting the social and economic progress of some section of people rather than the whole society. The traditional hegemony by the dominant class on the depressed caste work in the rural areas of Gujarat. The depressed caste is known as Dalits or untouchables, who has no social status in the Brahminical society. They not only barred by higher caste on the private sphere rather than many public institutions and market spaces. This is known by the incident of Una agitation. Given the hegemony of higher caste to low caste created the segmented neo-liberal economy rather than egalitarian society (Shah, 2017).

As economic progress is likely to bring about transformation in economies, it is expected that pre-capitalist forms of labour exploitation will be replaced by economic exploitation in the labour market. This view has also been challenged by many researchers. Jan Breman, for example, has shown the different types of bondage that may be there in relatively advanced states like Gujarat (Breman, 2001). He explains that marked led capitalist economy to exploit labour market and bondage the labour as per as own profit. In the relatively underdeveloped states like Arunachal Pradesh, institutional diversity and ethnic identity continue to shape the nature of agrarian transition (Harriss-White, Mishra and Upadhyay, 2009).

1.2a Characteristics of Rural Labour Markets:

Agriculture advanced placed where Green Revolution started, agriculture labour from the depressed caste not able to find the profit of modernisation of agriculture farming. Depth field study from some districts of Haryana finds that attached agricultural labour not free from the slavery system like contract labour or permanent labour. They are work as like before of Green Revolution in this region. So the attached labour not out from the labour mortgage system rather than they have to stay for sustain to the family from this earning (Jodhka, 1994).

The function of the rural labour market is more important because that will determine the allocation of labour across different economic activities, and as such as affect the rural income and development. The rural labour markets are characterised by a great deal of diversity. Due to an imbalance between the various inputs of production in the labour markets and land markets more inequality arises in the societies. The rural labour market is

characterised by *substantial uncertainty* and *seasonality* in agriculture production⁶. The relationships between poverty, nutrition level, labour power, the capacity to work in the labour market are substantial. Debraj Ray also explains that demand for casual and permanent labour in the labour market but does not take the involuntary unemployment, seasonality and uncertainty in the agriculture production. He argues two points on the entire interrelationship between the poverty, nutrition and labour market. First, an 'individual work capacity' affects the income of the labour market, second 'individual income' effecton the capacity to work⁷(Ray, 2012).

In the rural labour market, amajor part of workers works in the agriculture-based activities. In developing and underdeveloped countries, a substantial majority of the deprived sections are denied the political and social benefit from the government. Whether it may be due to for their economic backwardness or it may be for social restriction. The socially disadvantages groups suffer from the 'double handicap'. They are treated as like *low social status* accompanied with *low occupation status* (Rao, 2001). The low social status has been the outcome of the primitive societies categorisation of work or occupation. Which is convert to the modern period as their *Kaulika* occupation⁸. The low caste (mainly scheduled caste) labour are employed as in the polluting work and they are to be hired in cheap wages. Their shifting of the job from low-level activities to other open job is insignificant. So they live in the hidden identities where they have no any dignity and accessibility of economic freedom.

Bardhan and Rudra field study from 110 agriculture advanced and backward village of West Bengal prove that the wage difference more across the village rather than within villages. If the wages varies within the village for the same occupation like agriculture labour as well as non-agriculture labour work. Due to the labour agitation and organisation of small groups. The labour agitation more strong in more agriculture advanced villages than other villages. So the wage difference not shown in the agriculture labour market due to labour agitation. The under developed village more or less wage difference exist due to the poor labour have to work in the village in the prevailing wage rate rather than skip. So the modernisation of

⁶ That is fluctuating according to the instability of agriculture production changes in the consecutive cultivation of crops. Suppose the rainfall levels are uncertain that will affect to the total production. In this case total demand for harvesting labour will be affected.

⁷ The individual work capacity is determined by the yield of the labour income and the second income of individual is determined the *capacity curve*, which is determined by the nutrition to work capacity.

⁸Kaulika means which occupation passes from one generation to another generation. They have to stay in their occupation in the village where they (low caste) are denied to shift their occupation as their preference or choice. So they are force to stay in their *Jati Beusa* (caste based occupation).

agriculture reduce wage difference between the labour market for the same work (Bardhan and Rudra, 1980).

1.2b Economic Implications of Social Stratification:

Discrimination and disparity are the two complementary concepts in understanding the social economy when the majority of people do not participate in the growth of the society. Inequality is among the main issues in the underdevelopment economy in the recent period. The traditional, mainstream economic theory assumes that social identities do not matter. Akerlof and Kranton (2010) argue that identity plays an important role in shaping economic outcomes. The notion of identity is associated with the social context, identity acts as the basis of people's behaviour and thinking and how they expect others to behave. Some of these behaviours are related to the economic life which creates the disparities in society. Akerlof argues that although identity, norms and social category are abstract concepts in the real term it shapes the working of the economy.

Among the various institutional factors, traditional institution of caste has stratified and segmented in the Indian rural labour market. These institution forces to the occupational diversification that means in the same economic class societal discriminate emerge between the SCs and Others. This traditional labour institution and the discrimination among them affect the growth and distribution (Kanman, 1993). Caste might play an important role in the market access of various situation in both input and output market. In rural areas the many places, where SCs labourers are not hired for the domestic duties of the employers (Bardhan, 1984). The mobility of SCs labourer across occupation is limited; the elasticity of supply of labour force of them and the wage rate and bargaining power for wages is very low. The studies by Bardhan find that in the casual labour market wage rate are negatively related to the employment of low caste labours.

1.2c Caste and Labour Market Discrimination: Labour market discrimination is found on the different grounds in the past and even now also. Caste discrimination exists in the economy through unequal access to land, labour and capital. Several studies have documented caste discrimination through the analysis of wages. Banerjee and Knight (1985) in the study of Indian labour market, demonstrate that low caste people face barriers to get regular employment. Due to caste discrimination, low caste individual receives 15 per cent lower wages as compared to equally qualified high caste individual. They observed that caste discrimination exists both in the public and private sector job market employment. But it is

more in the private sector than in the public sector (Madheswaran and Attewell, 2007). Discrimination is also found in the informal credit market because Dalits are charged higher interest rates as compared to the others (Hatlback, 2009; Mishra, 2008).

Wage discrimination against the lower caste on the same work spread all over country but the wage difference is less some advanced than the underdeveloped states. The economic condition of the lower caste in India based on the employment or job access which is categories as organized and unorganized sector. Large section of lower caste engaged in unorganized sector where no any job security and wage rate are depend on the working condition and length of working hours. The wage rate of unorganized sector is not fixed and it is less than the organized sector. They are bound to work in unorganized sector due to their existing economic condition not support to their family survive. On this lacuna they are engages in unorganized sector for the long period. The weak economic condition of lower caste force to work in unorganized sector and it is further convert to the social stratification of groups based or caste based informal occupation of them. The seasonal nature of work like agriculture in rural areas people are used their family labour instead of hired labour for cultivation, so the wage rate not change as per as labour supply and demand. The wage rate determine by the three-factor i.e., market factor, institutional factor and social factor. The market factor is work under the economic factor like demand and supply of labour, which is determine the wage rate for a particular period of times. The institutional factor work under mass organization and collective demand by labour union and trade union. So the bargaining power of trade union will be help to hike the wage rate of labour. The last social factor work under the various social determinants like comparability, social status of worker's occupation, prejudice, caste and religion. A person demand higher wages for the given work when he compares the wages with other workers for the same type of work. The economic judgment of the demand of higher wage rate is fair for a democratic nation like India but they are preclude to get same reward for certain job. This society further creates the occupation based prejudice against the particular section of population (Murthy, 1990)

1.2d Theories of Labour Market:

The changing labour force participation rates of different groups of people and the changes in the wage rates are significant to understand the labour market dynamics. For a long time labour market discrimination was not studied by economists. However, in the recent past economists have started paying attention to the differentials in incomes and employment in

the labour market. Significant new theoretical progress has been made in the economics of discrimination in the recent period.

In the mainstream, neo-classical tradition of labour market analysis, economists typically assume that wages and employment are determined by the forces of demand and supply. Labour demand is modelled as being determined by the marginal productivity of labour. The equilibrium wage rate is determined by the impersonal forces of demand and supply and that is how wage rates are determined in the economy. Any observed differences in the wages of workers, is, thus explained through the differences in the marginal productivities of labour.

The general explanation offered by these theories was that income differences represent differences in labour quality. Thus, the differences in incomes are primarily the result of different skills and their productivities in the economy. Such differentiated skilled labour are assumed to be ‘non-competing’ labour. Within the orthodox economic traditions, labour market imperfections were the starting point to understand wage discrimination.

Becker (1957) and Arrow (1973), among others were the pioneers in propounding neo-classical theories of discrimination. They accepted the existence of discrimination in labour market under competitive conditions, and argued that it is inefficient as employers who discriminate make lower profits. The theory of statistical discrimination attributes discrimination as a response to inadequate knowledge about labour quality. As employers do not have adequate information about labour quality and other attributes of labour, they tend to use stereotypes to discriminate against some groups. Ideally, removal of information gap should remove this type of discrimination. However, the taste for discrimination theories suggest that some people are ready to forego utilities to discriminate. Recently, a more sophisticated analysis has been suggested by Akerlof by linking identities with discrimination.

1.3 Social Exclusion and Intergroup Inequality in Odisha: Uneven development and regional disparity have been among the key features of Odisha’s economy. Although there are many welfare schemes i.e., PDS, health, education, social security, pension etc. but most of the Dalits and tribal's do not have access to these schemes. Most of the deprived sections population is concentrated in the remote areas, and the welfare schemes by government

agencies do not reach to remote areas⁹. Some of the economic socio-economic indicator Odisha economy far behind the national level, among the various indicator like poverty, urbanization, MPCE, literacy rate, health condition. Among the 14 major states, Odisha has second highest percentage of population poverty after the Bihar. In 2011-12, 32.59 per cent of state population lives in below poverty line is compared to around 21 per cent of India. However, Odisha is one of the major fourteen state highest reduction of poverty from 2004-05 to 2011-12. In Odisha 57.2 per cent of the population was below the poverty line in 2004-05 but it falls to 32.59 in 2011-12 at the rate of 24.6 per cent.

The overall literacy rate of Odisha 72.9 compared to the national level 73 per cent. The enrolled rate of primary and upper primary of the states increased. The drop out of primary and upper primary class fall from 41.8 per cent to 1.97 per cent and 57 per cent to 2.40 per cent respectively from 2000 to 2015. The HDI of both Odisha and India mildly increase from 0.267 and 0.302 in 1981 to 0.442 and 0.504 in 2011 respectively. The crude birth rate of Odisha improved with 19.6 to 21.4 in India in 2013 (per 1000 population), due to institutional deliveries increased of the state 89 per cent in 2014-15. The General fertility rate (GFR) in Odisha 71.2 per cent compared with 80.3 per cent in India. The states crude death rate (CDR), infant mortality rate (IMR) and maternal mortality rate (MMR) fall to 8.4 (per 1000 population), 51 (per 1000 live birth), 2.22 (per 1000 live birth) respectively. Life expectancy of male and female in Odisha is 67.8 years and 71.6 years and for India, it is 67.3 years and 69.6 years corresponding to male and female.

The real growth rate of Odisha and India during 2014-15 (at constant prices 2011-12) as compared to 2012-13 is 7.24 per cent and 6.24 per cent respectively. The leading overall growth of the states pushes by agriculture and service sector real growth rate of 9.26 and 9.38 per cent respectively. Odisha manufacturing growth rate much more than the India growth rate during 2014-15 i.e., 8.31 per cent for Odisha and 5.53 per cent for India. The per capita income of state (at 2011-12 prices) during 2014-15 is Rs 52,516 growing at the rate of 5.23 per cent from 2013-14, which is maximum growth rate in last five year. In India per capita income for the same period is Rs. 72,889 growing at the rate of 5.8 per cent. However, the growth rate of per capita income of Odisha and India fall in the subsequent periods.

⁹ In overview of displacement in Odisha is provided in Balaji Pandey; *Depriving the underprivileged for Development*, Bhubaneswar, 1998 (pg-32), the Balimela multipurpose dam project, starting work in 1962-63, resulting in submerging 18,000 hectare of land, displacing 2,000 families of which 79 per cent are tribals.

Haan and Dubey (2005) argue Odisha economy is marked as much as by disparities within the states as absolute deprivation. Although regional disparities have been there since long, the disparity between social groups scheduled castes and scheduled tribes are more than the others. On the measurement yardstick of inequality and poverty by different economist and scholar, if we take to measure southern districts of Odisha particularly in terms of poverty, it comes out that poverty is very high in this region of Odisha¹⁰ (Haan and Dubey, 2005). In a rural area, the land is the main assets of the poor peasant for their livelihood. But economic and political process such as peasant differentiation, agrarian distress, productivity and employment insecurity raising the land grabbing in rural Odisha (Mishra, 2011). The significance of global and local political economic forces in shaping the processes of land grabbing creates the inequality among the social groups in the random process. So income from land which is the prime sources of income of the marginalised groups in the rural areas fall but still it provides employment to a large section of the total labour force in the country.

In Odisha still, now around 61 per cent of the worker is dependent on agriculture. The one-third of the state's GDP comes from the agriculture sector. On the development indicators, Odisha economy is lagging behind all the states. In Odisha, only 16 per cent of the population live in urban areas and rest all are living in the rural areas. The central government many plan and project are worked for the progress of poor and deprived groups which the main goal is to reduce the gap between rich and poor or Dalits/tribals and higher castes.

The poor landless and agriculture labourer are directly dependent on the daily wages on the work of another person land. They also migrate after the harvesting season to the neighbour states because in Odisha irrigation of land is less. The small and marginal farmer also not cultivated the land in the rabi season. The average area of land ownership is very less in Odisha (0.48 hec) and on the social groupbasis, it is less than half a hectare. The average area of land ownership of Dalits in Odisha is very low i.e. 0.25 hectares in compare to tribal 0.52; OBCs 0.49 and others is 0.48 hectare. Thus, Odisha is a state, which is not just underdeveloped and poor, but it is also a state where a disparity across social groups is high. So it would be interesting to study the nature and causes of inter-group social disparities in Odisha in the context of a less developed state.

¹⁰ The Debate of inequality by Rosalind Eyben that inequality like poverty can be defined in many ways like relating to different outcome of wellbeing, political representation and voice. Amartya Sen used capabilities of well-being.

The employment of the rural coastal belt district diverse as per as the income generation from the non-farm income. The farm income of the household fall which was the main sources of income in the earlier period. The income from crop cultivation mainly paddy of rural areas only 20 per cent of total income and non-farm income more than 70 per cent counted from 193 farmer income of coastal districts (Samal, Barah and Pandey, 2006). The income from non-farm increase the rural inequality of coastal Odisha. The income from non-farm is varied as per as size class of land ownership of the farmers. The income share from non-farm was 3 times higher than the farm income of small farmer and for large land operating farmer 2 times non-farm income than farm income.

In the rural areas, people depend on the income from labour and income from the cultivation and allied agricultural activities. A large number of the rural population are landless whose main sources of income is wage labour. The employment in the rural farm sector (i.e., cultivator) of the state has been declining¹¹ and landless and marginal farmer convert their livelihood from farm to the non-farm sector and starting work as wage labour than farming, so rural to urban migration increases of the state. Around 85 per cent of Odisha population lives in rural areas and one third of rural households constitutes landless wage labour. These landless wage labour depends on daily wages for their livelihoods. The state like Andhra Pradesh, Bihar, Karnataka, Maharashtra, Odisha, Tamil Nadu and West Bengal have a large section of population work as agriculture labour. The rural household mainly an agricultural labour of the state characterised¹² by low earning from leasing-in land, high debt, declining employment in village forces to the worker for migrating to other states. So per year thousands of labour goes to the outside of states for work (Mahapatra, 2007).

So the income of the labour or farmer falls as per as the employment fall. In the earlier period of 1980 to 90s the indebtedness of the state farmer and rural labour household was fall rather than rise. As per the NSS data, the incidence of scheduled caste rural household debt fall from 40.70 in 1983 to 38.70 in 1987-88 and it is for scheduled tribes also

¹¹As per as the population census, from 1981 to 2011 the percentage of cultivator out of total workers diminishes from 40.4 per cent in 1981, 38.7 per cent in 1991, 24.1 per cent in 2001 and in 2011 it is reaches to 23.4 per cent, for the agriculture labour it was 23.9 per cent in 1981 and marginally rise in 1991 to 25.1 per cent. But after 1991 the share of agriculture labour drastically fall to 14.7 per cent, however in 2011, remarkable increased the share of agricultural labour of the state to 38.4 per cent from 14.7 per cent 2001 census. (from *Odisha Economic survey, 2015-16, pg. 2/19*)

¹² Overall all in Odisha 47.8 per cent of households are indebted. Across the social groups 44.06 per cent of other backward caste, followed by scheduled tribes 23.28, OTH caste 18.48 per cent and scheduled caste 14.19 per cent. Average amount of outstanding loan per farmer households of the states is Rs. 5,871. Across the social groups debt of OTH caste Rs. 10,439, subsequently by OBCs, SCs and STs is Rs. 7,845, Rs. 4,850 and Rs. 2,360 respectively (NSS, 2003). In 2003, 23.05 percentage of scheduled caste and 18.95 per cent of scheduled tribe households leasing-in land (NSS, 71th round, 2003, pg.18).

fall from 29.50 in 1983 to 24.10 in 1987-88. But today indebtedness rises instead of falling, although the incidence of debt among the scheduled caste and scheduled tribe from formal sources loan (because SC/ST take a loan from the landowner i.e., leasing-out landowner) less the state overall farmer indebtedness rises. In rural India, 31.4 per cent of households are indebted and the average loan of indebted households is Rs. 32,522. Among the social groups indebted households in respect to total social groups wise households, other backward caste are more indebted i.e., 35.7 per cent subsequently by OTH (31.4 per cent), SC (30.9 per cent) and ST (16.9 per cent). The average amount of highest loan borrowed by OTH caste (Rs. 44,565), followed by the social groups OBC (Rs. 36,091), SCs (Rs. 24,458) and STs (Rs. 9,610). The indebted households are borrowed more loan from non-institution sources than the formal sources. In rural India, 19 per cent of households receives loan from non-institution and 17.2 per cent of households borrowed from formals or institutional sources (NSS, 2013)

The different culture attainment of some region become sub-divided on the sub-region such as Kalinga and Kosala in the earlier period which is today known as Odisha. The religion and caste of state from the primitive period it is based on *gramdharma* and *jati dharma* rather it is not based on *sampradayas*. The occupation basis people of the region sub-divided on the different caste. Like Odisha, some other parts of India coexistence of formation of caste or identities of some section of people become define through the occupation of the village or region (Sahu, 2012). The traditional exploitative extra-economic relation of the coastal districts of Odisha prevails that the hereditary ways dominance of higher caste to lower caste who are mainly attached to the farming and hereditary occupation (called *Jati Beusa*). So the traditional caste system working not only the part of Odisha but also many parts of India where the dominance of higher caste on lower caste pertains to the parallel development of all section of people. That is strengthening the inequality and graded economy (Lerche, 1993).

Lerche (1993) argue that socio-economic development of Odisha is determined by the elite section of the people rather than the whole community. The evidence from the depth field study by Jean Lerche in coastal belt of Odisha find that traditional caste based occupation system like *Jajmani* services not blot out in rural areas. In rural areas traditional caste based occupation hold by some section of people rather than give up in the competing period. He categories the sample households on the basis of occupation in two broad groups one is service caste and another is farmer. The servicing caste are commonly attached with non-

agriculture occupation like traders not necessarily work only in servicing caste or Jajmani but also work in agriculture. Within the servicing caste one groups work as in *Bartana relation* (caste called Barikos, Dhobas, Vishwakarmas) with farmer and other are only servicing groups. The first service groups have some own land and engaged with farming-cum agricultural labour. The second service groups work as agricultural labour, they are leave their traditional occupation (which was attached with the caste and transferred generation by generation) like work in oil presser, weavers, fishermen and basket makers. The economic development does not change the traditional occupation among service categories which occupation attached with caste or groups. So the free market relation not established among the farmers and service groups. The traditional caste system of coastal Odisha although change but the dominance of higher caste to lower caste still exist in the rural areas. Agrarian development did not break the dominant economic system rather it is transferred to the generation to generation (Lerche, 1993).

The historical and regional context of the relationship between the dominant and the marginalised sections is an important aspect of the caste question in Odisha. The freedom movement created scopes for a mass mobilisation with participation from the deprived castes and classes, but only to a limited extent. In the regional context, participation of peasants and in the Swaraj movement, created some scope for fight against feudalism and colonialism organised through the leadership of Congress. The complex linkages of anti-feudal struggles for social rights by the marginalised social groups could be seen from the emergence of Kisan Sangha and Prajamandal movement (Sahu, 1994). The peasant society emerged through the different ideological sphere on the specific groups on the name of segmented identities and society become fragmented on the basis of caste and religion (Sahu, 2012). These historical developments continued to have some bearing on the nature of caste-based discrimination in Odisha.

The diverse nature of labour contracts and mode of payment of the state of rural households between the dry-prone areas and irrigated areas in Odisha have been noted by Sarap (1991). The rural labour are discriminated in terms of wage payment to a limited extent. The social relationship and caste become a factor for access to employment in agriculture or farming. The higher caste changes the contract of farming regularly rather than on the longer period of leasing out land to the one farmer. The segmented land and labour market operate through the links of caste, gender and local or migrant farmer. The lack of

collective bargaining power of the casual labour, results in wages below the minimum wage prescribed by the state government (Sarap, 1991)

Affirmative action provisions like representation in the governance structure are less successful in empowering the marginalised social groups. Irrespective of the reservation on political position and representation for scheduled caste and scheduled tribes from the grass root level to the top of the governmental decision, this vulnerable section is not yet getting the political power. The hegemony of the higher caste on the lower caste in rural areas prevents the access of many government schemes like PDS, work under NREGS etc. With the lack of political voice and low educational level, the poor do not find much benefit from government's developmental projects. Some innovative schemes for rural poor especially for the vulnerable section, are controlled by the elite people belonging to the local political parties, who grab the funds of government schemes in villages-like Kashipur block (Naik, 2009). Although two-third of houses allotted under Indira Awas Yojana (IAY) to the scheduled caste and scheduled tribes of the state they are far away from the facilities like electricity, drinking water, drainage system etc. These facilities do not provide to them in the village as well as the town of the Kalahandi and Cuttack district. But the central scheme of housing much benefited to homeless people village and town people (Rizvi, 2011). Similarly, a study of on the performance of PDS in the rural and hilly areas in the Koraput districts of Odisha, finds the exclusionary effects of the different governmental scheme in the areas of health facility, education and water supply. Exclusion from the benefits of PDS has been affecting the levels of material deprivation leading to malnutrition and upoor health outcomes of the child. (Chatterjee, 2014).

1.4 Introduction to the Study Area:

Odisha¹³ is the 9th largest state by area and the 11th largest by population in India¹⁴. It consists of 30 districts, which are grouped into three NSSO regions¹⁵. As per Reserve Bank

¹³Odisha extends in north from 17° - 49' north latitude to 22° - 34' north latitude and from 81° - 27' east longitude to 87° - 29' north longitude. It is surrounded by West Bengal to the north-east and in the east, Jharkhand to the north, Chhattisgarh to the west and north-west and Andhra Pradesh to the south.

¹⁴Total population of Odisha in 2011 (census) is 4,19,47,358 (forms 3.47% of India) out of them male population is 2,12,01,678 and female population is 2,07,45,680. Some of the key demographic indicators of the state are: population decadal growth rate is 13.97%, Literacy rate is 73.45% (male 82.40% and female 64.36%), Sex ratio is 978 female per 1000 males in 2011, and population density is 269 per square kilometre; Rural population comprises 83.32% while Urban population 16.68% in Odisha

¹⁵1. Coastal (Baleswar, *Bhadrak*, Cuttack, Jagatsinghapur, *Jajpur*, Kendrapara, Khorda, Nayagarh, Puri); 2. Southern (Balangir, Baudh, Gajapati, Ganjam, Kalahandi, Kandhamal, Koraput, Malkangiri, Nabarangapur, Nuapada, Rayagada, Sonapur); 3. Northern (Anugul, Bargarh, Debagarh, Dhenkanal, Jharsuguda, Kendujhar, Mayurbhanj, Sambalpur, Sundargarh).

of India publication, in terms of per capita income, the position of Odisha is 20th among the 25 states and Union territories of India in 2011-12. Percentage of population below poverty line in Odisha was 57.2 in 2004-05 and has declined to 37.0 in 2009-10. In terms of Human Development Index 2011 Report for the period, 1999-2000 to 2007-08, Odisha's position has been lowest: it occupies the 22nd position among 23 States/Union Territory. There is, however, a great deal of diversity among the regions and districts of Odisha. The considerable diversity in agrarian systems and changing patterns of landholding structure offers an opportunity for comparative analysis and requires recommendations accordingly; access to livelihoods resources¹⁶ was identified by GoO as issues of particular policy concern, and the study findings and recommendations maybe of direct operational relevance in the context of the Odisha Rural Development Projects. The coastal districts where the agriculture labours directly depend on their livelihood on the daily wage earning. In the categories of worker both Odisha and India are given in the below table:

In the 2011 Census, the population of Odisha has been reported to be 4.20 crore and which composed 3.47 per cent of the population of the country. As per 2011 population census, the total number of workers was 175.42 lakh, of which 86.1 per cent were in rural Odisha and rest 13.9 per cent in urban Odisha. The main workers constitute 61 per cent and marginal workers 39 per cent of total workers. On the basis of gender, the male workers were 67.9 per cent and female workers were 32.1 per cent of the total workers, while the cultivators were reported as 23.4 per cent and agricultural labourers as 38.4 per cent of the total workers. Further, the share of marginal workers constituting 39.0 per cent to the total workers, out of which 81.9 per cent were engaged for 3-6 months and the rest 18.1 per cent were engaged for less than three months during the reference period. Census data for 2011 reveals that there was an increase of 22.9 per cent of total workers in 2011 census over 2001 census. The proportion of male workers to male population and female workers to female population in the State stood at 56.1 per cent and 27.2 per cent respectively.

The work participation in 2011 census higher than the 2001 census of both Odisha and India. In Odisha the work participation rate 43.19 per cent in 2011 census in compared to 40.23 in 2001 census, for India it is 41.75 per cent in 2001 census and it is marginally rise to 41.83 per cent in 2011 census. Among the social groups work participation rate in Odisha¹⁷

¹⁶Particularly, land has already been identified as a priority by the Government of Odisha (GoO), and strong demand voiced by GoO for such a state-level study to be conducted (Mearns and Sinha, 1999).

¹⁷ Work Participation Rates (WPR) = {Total Workers (Main + Marginal)/ Total Population}*100. For Odisha work participation rate in 2001 census for SCs is 40.33 per cent, for STs it is 49.86 per cent and for Others it is 42.42 but in 2011 census it become 42.49 per cent, 50.59 per cent and 45.07 per cent subsequently to same

marginally increased in all caste but in India for the scheduled caste and scheduled tribe work participation rate marginally fall of both caste from 2001 to 2011 census. In Others (including OBCs) marginally increase the work participation rate for the same reference period. When we calculate the agricultural workers¹⁸ (adding cultivator and agricultural labour) to the total workforce, we are taking both main and marginal workers jointly. So proportion of agricultural workers calculate from the total workers i.e., main and marginal workers instead of total population. The agricultural workers (joint taking of cultivator and agricultural labour) participation rate in 2011 According to population census of India, the proportion of rural agricultural workers of India continuously fall from 71.44 per cent in 1991 to 52.2 per cent in 2001 and 49.84 per cent to in 2011. On the male and female basis we find that around 76.49 per cent of male agricultural worker (summation of cultivator and agricultural labour) work in agriculture related work in 1991, but it is drastically fall to 58.12 per cent in 2001 and again it is fall to 53.85 per cent in 2011 census. The proportion of women agricultural workers (cultivators and agricultural labourers) to the total women workforce slowly increased in current period as compared to earlier. The female agricultural workers relatively less than male agricultural worker in rural India. The female agricultural worker also fall from 60.86 per cent to 41.67 per cent from 1991 to 2001 census, after that in 2011 census it is marginally rise to 42.36 per cent instead of falling. That is indicate the proportion of female cultivator and agricultural labour in rural areas increases.

In rural Odisha, the percentage of agricultural workers fall from 69.61 in 1991 to 43.3 in 2001, but again it is fall in 2011 census, i.e., 36.91 per cent. The male agricultural workers in Odisha drastically fall from 78.25 per cent in 1991 to 53.8 per cent in 2001. The rate of fall in male agriculture worker in rural Odisha much higher than the India. In 2011 census male agricultural workers fall to 45.95 per cent from 53.8 per cent in 2001 census. In Odisha the female agricultural workers is less as compared to the other states, due to in Odisha female are not allowed to work outside home as considering the prestige, status and culture. Although in the poor family some female are work nearby village as like agricultural labour but it is less than male. In 1991, only 48.46 per cent of female workers are work in

social groups. In India the figure in 2001 census, 42.50 per cent for SCs, 50.37 per cent for STs and 42.57 per cent for Others and in the figure not much change in 2011 census like subsequently the social group as 42.40 per cent, 50.00 per cent and 42.71 per cent respectively (see more details for chapter 2).

¹⁸Who work as cultivator or agricultural labour means attached with farming or agricultural activities. Total workforce is the summation of main and marginal workers which is also called as total workers. So the proportion of agricultural worker calculate by the $C + AL/main + marginal\ worker * 100$. *Agricultural labour* means work as casual wage labour and *cultivator* means who are work at own land for cultivation i.e., self employed in agriculture (SEA).

agriculture work like work as cultivator or agricultural labour. However, in 2001 census the share of female agricultural workers fall to 22.42 per cent and in 2011 census it is fall to 19.52. So in rural areas large section of working age labour not work and directly or indirectly depend on the other family member income (Census, 2011). Women workers participate actively in farm operations like sowing, transplanting, weeding, hoeing and harvesting, whereas the majority of male workers attend to ploughing operations. Wage differentials exist among men and women for the same type of jobs. Women face wage discrimination at many work sites.

The proportion of agricultural workers (cultivator and agricultural labour) fall in Odisha much higher than the national average. This is indicate the state population leave the farming and change their occupation towards non-agriculture activities. The proportion of agricultural workers in Odisha fall from 69.61 per cent in 1991 to 36.91 per cent in 2011 census, for the same period in India it is 71.44 per cent to 49.84 per cent.

As per 2011 census, there were 47, 69,659 workers among STs, out of which 48.87 per cent were main workers and the rest, were marginal workers. The total number of workers among SCs was 29, 90,326 out of which 59.22 per cent being main workers and the rest being marginal workers. There are proportionately more main workers among SCs while it is reverse in case of ST. Among the tribals, cultivators account for 40.4 per cent and agricultural labourers 32.5 per cent of total main workers. Of the total SC workers, 21.1 per cent were cultivators and 33.3 per cent were agricultural labourers. Most of the tribal and SC cultivators are marginal and small farmers or sharecroppers. Other important occupational groups are weavers, fishermen and cobblers.

1.5 Features of Odisha rural Labour Market: Odisha is one of the underdeveloped states in the country. In Odisha, more than 70% of the population depends on agriculture and around 84% of the population lives in the rural areas. Some of the basic characteristics of the labour market in Odisha¹⁹, based on NSS 68th round (2011-12) are described as follows:

¹⁹ The labour force is divided in to four categories which are based on three approaches i.e *usual status* approach, *current weekly* status approach and *current daily* status approach. These four-fold classification of labour force are: (a) usual status (also called as usual principal status) which is taking only principal activity (US-ps), (b) usual status which is taking both principal and subsidiary activity together (US-ps+ss), (c) current weekly status (CWS) and (d) current daily status (CDS). The reference period for usual status approach is 1 year, for *current weekly status* approach is 1 week and that for *current daily status* approach is each of the 7 days preceding the date of survey. The labour force indicators measured in *usual status* and *current weekly status* are in persons and those in *current daily status* are in person-days (NSSO, 68th round, 2011-12).

1.5a Labour Force Participation Rate (LFPR): Labour force participation rate is the ratio of both numbers of employed and unemployed persons to the total population. In Odisha male labour participation rate higher than the female labour force participation rate. In the usual status which is based on only principal status i.e. US+PS, around 60 per cent of male labour participate whereas in female on 14%. But in the usual status which is based on both principal status and subsidiary status i.e. US-(ps+ss), around 60% of male labour is participated where as in female on 25%. In the four categories of the employment status of the male in the rural Odisha around the same but in the female labour force participation is very low in comparison to male. In the CDS, the female labour force participation rate is around 13%, which indicate in Odisha very less of female labour work in the workforce. At the national level, the male labour force participation rate is three times higher than the female labour force in all status of unemployment rate except usual status US-(ps+ss). In the US, the male labour force is double than the female labour force. In the female LFPR in the four categories of employment status, Odisha figure is below than India except for usual status. But in the male cases, Odisha figure is higher than the all-India figure.

1.5b Worker Population Ratio (WPR): Worker population ratio is the ratio of only numbers of employment person from total population. On the worker population ratio, both UPS and US are same for the male in Odisha. But in the female worker population ratio of the UPS is around 13% and the US is around 25% out of total population. In Odisha, the CWS and CDS worker population ratio of the male is 56% and 53% respectively, but in the female cases, it is 16% of CWS and 12% of CDS out of total population. In all India, the worker population ratio in the four categories of employment status male is higher than the female. In the UPS and CDS of the male is three times higher than the female. In compared to Odisha male worker population ratio is higher than the India male worker population ratio in the four categories of employment status. Whereas in the female worker population ratio India is higher than Odisha.

1.5c Unemployment rate (UR): The Unemployment rate is the ratio of a number of the unemployed person to both numbers of employed and unemployed persons. In the unemployment rate in rural Odisha, both male and female of the four categories of the employment status is more or less as equal except UPS. In the UPS, the unemployment rate of male is 2.7% and female is 3.4%. In India, all the four categories female unemployment rate is more than that of the male. If we compare to the Odisha to India the unemployment rate it is higher than India. The unemployment levels in rural India still hover around 8 per

cent. India has the largest young population in the world, with over 60% of the population in the working age of 15-59 years.

1.5d *Age-specific Labour force Participation Rate (LFPR)*: Under the range of age 30 to 59 years labour force participation rate (LFPR) of male is more than 90% but in the female, it is only 40% out of total population. In the age of above 60 years 64% of LFPR are male but in the female, it is only 16%. In the all-ages measurement of LFPR according to usual status (US) of the male is 55% and female is only 18%.

1.5e *Sector-wise Distribution of Workers*: In Odisha, around 68 per cent of workers are engaged in agriculture and allied activities, 8.4 per cent in industry and rest 24 per cent are engaged in the service sector in the rural areas. On the all India basis around same as Odisha around 68 per cent in agriculture, 8 per cent in industry and 24.1 per cent in service sectors. In Odisha, 10.6 per cent of workers work in construction, which is included in the service sectors. But in India construction sector composed 9.4 percentages. So in the service sector composed 25 per cent of worker work out which 10.6 per cent are construction sector and rest another service sector. The rural labour force in Odisha has been declining partly due to the migration of workers to urban areas and engages in construction and others works. The dependency of the workforce on agriculture has reduced for male workers but not for female workers.

1.5f *Percentage Distribution of Households by Household Type*: On the distribution of HH by the household type in rural Odisha has divided into the three broad categories i.e. *self-employment, regular wage earners* and *casual labourers*. In the self-employment again categories in two types mean self-employment agriculture and self-employment non-agriculture, like casual labour, are divided in two i.e. casual labour in agriculture and casual labour in non-agriculture. In Odisha 54% of household are self-employment, 7.2 % are salary earners and 31.3% are casual labours. Out of 54% of self-employed household, 35% are engaged in agriculture and 19% in non-agriculture. In the casual labour around 18% engaged in agriculture and 14% engaged in non-agriculture. In the all India cases self-employment is 50% which is less than Odisha.

1.5g *Percentage Distribution of Households by size class of Land Owned*: As per as the NSS 68 round data (2011-12), the distribution of rural households across the size class of land owned, 7.70 per cent of rural household in India are owned less than one acre of land and for Odisha it is 4.80 per cent. In Odisha, around 47 per cent of household land owned more than

one acre but less than two acre land, but it is in India 50.60 percent. Among the social groups in Odisha, 8.80 per cent of scheduled caste households owned less than one acre land and in the national figure for scheduled caste it is 12.40 per cent. Around 62 per cent of households belong to scheduled caste in Odisha are owned on the range of one to two acre land size classes, however, for India it is 64.50 per cent. Both Odisha and in India, larger percentage of scheduled caste households are marginal land holding as well as small land owned households across the size class of land ownership as compared to other caste in rural areas.

The actual rate of expansion of labour force in the state usually depends on several factors that include the growth of population, working-age population, labour force participation rates, educational enrolment at higher levels and reduction in school drop-out rates. On the characteristic of the labour market in Odisha is very poor on the compared to other states of the country. As per as the literature caste based discrimination prevails but it is fall. The study is important on the measured the discrimination in labour market on the basis of social and economics factor. What are the economic indicator for more discrimination in labour markets and how it will be reduce in the coming period and which of the economic factor help to reduce discrimination? On the social indicator how it will be eradicate in village like feeling caste and untouchable among the social group and which economic indicator will strengthen to reduction of discrimination of the rural areas.

The changing occupation of population as per as available of work in the village labour force participation rates changes and it is varies across the social groups. Because scheduled caste and scheduled tribes people work more as casual labour than other work. Regional disparity as well as social discrimination of the state becomes sometimes the headlines of news media. The large section of deprives groups people not able to access the modern facilities. More than 32 per cent of state populating are living in below poverty line. Although in the regional basis poverty more in southern region than northern and coastal, but coastal areas backward caste particularly scheduled caste people more poor than other caste. Although people belong to higher caste also come under BPLs but they have more or less some land which is help them to support for their livelihoods. But the poor peasants who are landless or marginal land holding work as casual labour for survive. The average land ownership per households 1.18 acre, but on the social groups it is 0.61 acre for scheduled caste, 1.21 acre for other backward caste, 1.28 acre for scheduled tribes and for other 1.18 acre. Thus on the land distribution scheduled caste stay in the bottom of the caste strata. More than 60 per cent of workers work in agriculture, providing highest employment in the state

total employment. Among the total workers around 60 per cent are work as main workers and rest are marginal workers. As per as census data the state cultivator or rural farm sector employment continuously fall from 40.4 per cent in 1981 to 23.4 per cent in 2011. On the same period agricultural labour increased from 23.9 per cent to 38.4 per cent but not necessarily continuous process. In 2011, out of total scheduled caste main workers 21.1 per cent are cultivator and 33.3 per cent are agricultural labourer and it is for scheduled tribe 40.4 per cent and 32.5 per cent out of total scheduled tribe main workers.

The work participation rate of state increased from 40.23 per cent in 2001 census to 43.19 per cent in 2011 census. On the social groups wise work participation rate, both scheduled caste and scheduled tribe it is increased from 40.33 per cent and 49.86 per cent in 2001 census to 42.49 per cent and 50.59 per cent in 2011 in respective caste. On count of only working in agriculture workers (adding cultivator and agriculture labour) in 2011 census is only 36.91 per cent, which is fall from 69.91 per cent in 1991. So the falling of agricultural workers indicate that people are leave the farming and change their occupation towards non-agriculture works. So due to the large section of workers work as casual labour, how they are discriminate on the respective work. So in the inter groups disparity among the various socio-economic indicator of the state in casual labour markets measured throughout the study.

1.6 Objectives:

The study has the following broad objectives:

- i. To study the broad characteristics of the labour market in rural Odisha.
- ii. To study the caste-based discrimination in farm and the non-farm labour market in rural Odisha.
- iii. To examine the determinants of both inter-group (SCs and others) and intra-group (within different categories of SCs) wage inequality in rural Odisha, both in agricultural and non-agricultural labour markets.
- iv. To examine the existence and implication of interlinked transactions (with credit, land-lease and other markets) in labour markets within and outside agriculture.
- v. To examine the inter-group differences in the working conditions of labours (length of working hours, nature of work, treatment at work sites) in different sectors of the rural economy.
- vi. To study the perception of people towards discrimination in labour markets and their responses to such discrimination.

1.7 Hypotheses:

The following hypotheses will be tested in the study:

- i. Caste-based discrimination exists in both farm and non-farm in rural markets in Odisha.
- ii. Caste-based discrimination is higher in agricultural than in non-agricultural labour markets.
- iii. Livelihood diversification (in the form of commuting for work, non-farm employment in rural areas and migration) reduces wage discrimination.
- iv. The incidence of interlinked transactions is more among the SC labour households than among non-SC labour households.
- v. Access to education among the labourers of lower caste groups reduces discrimination.
- vi. Discrimination causes lower wages for SC/STs as compared to equal others.

1.8 Data Base and Methodology:

The study is based on both the primary and secondary data. The secondary data has been collected from various sources of NSSO reports such as (55th, 1999-2000; 61st, 2004-05; 66th, 2009-10; 68th 2011-12) and unit level data from 61st, and 68th round. The other sources of secondary data are the *Primary Census Abstract, Government of India; National Commission for rural Labour Inquiry Report, Ministry of Labour; Economic Survey various years; Agricultural Census and Odisha Agricultural Statistics* and others.

In order to achieve the objectives of the study, we used both secondary and primary data. Primary data is collected through field study by using structured and pre-tested questionnaire (closed and open-ended questions) by making a personal investigation to elicit information from the sample respondents. The details about socioeconomic status of the sample respondents, such as education, occupation, employment, income and expenditure, saving, debt of farmers, asset holding, land ownership and operational holding, tenancy etc., were collected. Along with quantitative method, qualitative methods like in-depth case study, and Focus Group Discussions (FGDs) were conducted along with the questionnaire for triangulation. More focus on casual labour, who are work casually both in agriculture and non-agriculture over the years. The casual workers randomly selected as per as stratified random sampling based on their occupation. The geographical location of village chose by

the high scheduled caste population whose main occupation as agriculture labour. As per as the main occupation of households heads households categories and sample of households of four village based on proportionate to caste composition of the respective village as per as total households. So on the process of stratified random sampling based on their occupation as categories of households type, around 408 total sample households information collected in two districts of coastal areas. The primary data has been collected through an in-depth field research with the help of personal interviews on the basis of a suitable structured questionnaire.

1.8a Sampling Design:

While Odisha has a substantial of SCs and STs population, the ST populations are more concentrated in the interior districts of the state and the SCs have a higher concentration in the coastal belts. Since the focus of the study is on caste discrimination, coastal Odisha has been chosen for the primary survey. The primary survey was carried out in the two coastal districts²⁰ out of total nine coastal districts i.e., Balasore, *Bhadrak*, Kendrapara, *Jajpur*, Cuttack, Jagatsinghapur, Khorda, Nayagarh and Puri. The districts, village and households have been selected on the basis of the following criteria:

At the *firststage*, two districts were selected on the basis of *Percentage of Scheduled Caste population across the social groups out of total districts population on 2011 census*. It was found that the percentage SCs households was the highest in the two coastal districts, Jajpur and Bhadrak. The detailed number of the population across the social group of the all coastal districts of Odisha has been put in at **appendix 1.1**. After the selection of the districts, two villages were selected from each of the districts. At the second stage, the villages were selected on the basis of *Number of Agricultural Labour (in persons) from total rural workers of the districts in 2011 census*. One village with high percentage of agricultural labour (AL) village and also with high Scheduled Caste populations and another village with medium share of agricultural labour and a medium share of Scheduled Caste population of the village. The purpose of selecting the villages on the basis of these indicators was to ensure that (a) the village has a sufficiently large number of scheduled caste agricultural labourers; (b) to

²⁰Two Jajpur District village: Kanikapada village come under Dasarathpur Block near Mangalpur town and 25 km from the district headquarters. Mukundapur village comes under Korai Block and nearest town is Balichandrapur and it is far away around 80 km from district headquarters. Two Villages in Bhadrak Districts: Rahania village comes under Bhandari Pokhari Block and it is 15 km far away from the town of Bhandari Pokhari and 30 km distance from district head quarter. The village Chudamani near to Erum. It is comes under Basudebpur Block and distance 10 km from this town and 50 km distance from Bhadrak district headquarter.

capture the diversity in the conditions of demand for labour in the rural areas of the district. On the basis of these criteria, two villages Kanikapada (under Dasarathpur block/tehsil) and Mukundapur (under Korai block/tehsil) of Jajpur district and Rahanua (under Bhandari Pokhari block) and Chudamani (under Basudebpur block) of Bhadrak district were selected. Further details regarding the selected villages have been placed in the **appendix 1.1**.

At the third stage, after the selection of the villages, all the listing households of the villages were divided on the basis of two criteria: (i) The households whose main occupation as agriculture and (ii) whose main occupation non-agriculture i.e. engaged in non-agriculture activities like a carpenter, work in the brick industry, a tractor driver. First, a complete house listing of all the households was done for the entire village²¹, or for wards in the case of bigger villages. Information on the main occupation of the households, and caste was collected. This was used to select the sample households through stratified random sampling.

In the house-listing survey primarily questions were asked about the name, caste, occupation (on the basis of employment otherwise main income sources), which was used to categorise the households. Thus, casual labour households (including casual labour in both agriculture as well as non-agriculture) were identified. Depending upon the share of different castes in the total village,²² samples were selected randomly from within each caste group. The size of the sample from each caste group was proportionate to the share of the castes in each of the villages. At least one hundred sample from each village were collected targeting more on casual labour rather than self-employed and business or other occupation. So from the two districts in four villages total 408 households were collected.

1.8b Methods to Estimate Caste Based Discrimination:

The discrimination in employment, wages, access to land for farming, credit facility, working condition of casual labour has been measured across the social groups as well as within the social groups. So, the gap between and within groups explain separately in this study. The study focus on the two ground of wage difference in the casual labour of the respective villages. We will examine the discrimination on the basis of wages on the two grounds:

1.8b.1 Inter-group wage discrimination: That indicates to examine the specific caste groups face discrimination in wage labour market. We will study the difference in wages between

²¹See **Appendix 1.3** for details on the process of selection of households.

²²See the detail calculation process and selection of sample from each village see the **Appendix 1.3**.

SCs and Others and SCs and OBCs. If in the field we do not find the STs, then we only show the discrimination on the two ways i.e. (a) SCs wages compared with others' (other than SC and OBC) wages, and (b) SCs wages compared with OBC's wages.

1.8b.2 Intra-group wage discrimination: It indicates the how wages are different within the Scheduled Castes. The intra-groups wage discrimination measures by comparing discrimination across the Sub-castes (Within SCs and OBCs respectively): The purpose is to examine whether the constitutionally recognised category of SC (or OBC) hides important differences within the group (out of 95 sub-castes came under SCs in Odisha from Constitution (Scheduled Castes Order, 1950, Part-III).

1.8c Decomposition Methodology:

The study follows the Blinder-Oaxaca method of wage decomposition (Blinder and Oaxaca, 1973). The two independently written papers, Blinder (1973) and Oaxaca (1973) uses the econometrics methodology to determine the wage gap between black and white in the United States of America²³. So the '*Blinder-Oaxaca decomposition Method*' is more useful on the econometrically measuring labour market discrimination. Apart from showing different percentage share of various social groups and their respective job, we try to estimates the mean wage gap across the social groups in the rural area. Generally, we know that the person with higher educated or human capital getting more wages than the person with lower educated. This wage difference in the labour market is called *endowment differences* or *explained differences*. But in the discriminatory labour market, this wage gap arises due to differences in perceptions about the person belonging to different castes, religions, sex etc. This type of discrimination arises by the employers on the basis of biases. These differences are termed as *treatment differences* or *unexplained differences*. So the decomposition enables the separation of wage differentials into one part that can be explained by the differences in individual characteristics and another part that can't be explained by differences in individual characteristics. So the gross wage difference can be defined as:

$$G = \frac{W_{nsc} - W_{sc}}{W_{sc}}, \Rightarrow \frac{W_{nsc}}{W_{sc}} - \frac{W_{sc}}{W_{sc}} \Rightarrow \frac{W_{nsc}}{W_{sc}} - 1 \quad \text{----- (i)}$$

Where, G- Gross wage differential due to 'labour market discrimination i.e., caste, religious.

²³See more **Blinder and Oaxaca (1973)** for how determine the wage and how it is different according to endowment and colour based.

Y_{nsc} - Wages for Higher castes or Non-SCs group.

Y_{sc} - Wages for Lower castes or SCs group.

Suppose there is no labour market discrimination or in the absence of labour market discrimination the Non-SCs and SCs wage differential would occur due to 'pure productivity differences' i.e., due to SCs are less educated, less skilled etc. So the gross wage differential emerge due to productivity differences, but here no any market discrimination exists.

$$Q = \frac{W^{\circ nsc} - W^{\circ sc}}{W^{\circ sc}}, \Rightarrow \frac{W^{\circ nsc}}{W^{\circ sc}} - \frac{W^{\circ sc}}{W^{\circ sc}} \Rightarrow \frac{W^{\circ nsc}}{W^{\circ sc}} - 1 \text{ ----- (ii)}$$

Where, Q- Gross wage differential due to 'productive differences i.e., lower skilled worker get obviously lower wages than skilled/ educated labours but no any market discrimination.

$W^{\circ nsc}$ - wages of higher castes or Non-SCs in the 'absence of market discrimination'

$W^{\circ sc}$ - wages of lower castes or SCs in the 'absence of market discrimination'

Now the market discrimination coefficient²⁴ (D) is then defined as the proportion differences between G+1 and Q+1.

1.8d Logistic regression model: Logit or Logistic regression will be used when the dependent variable is binary (also called dummy) or dichotomous. It is a non-linear regression model. We would use logistic regression instead of linear due to the dependent variable is not numeric. That means the dependent variable is *nominal, categorical, ordinal* etc. So we can't be estimated by the method of OLS.

$$\text{Log}(\ln) \left[\frac{p}{1-p} \right] = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n + u_i$$

The coefficient (i.e., $\beta_1, \beta_2, \beta_3 \dots$) in logistic regression are interpreted in terms of *odds*. In the explanatory variable (i.e., $x_1, x_2, x_3 \dots$) is the categories variable like caste SC, ST, OBC or religion Hindus, Muslim, Jain or region southern, northern, western, coastal. Among the dependent variable one category is designated as *reference* and for the other coefficient is *obtained*. The coefficient of reference category is always is zero (0) i.e., if the β_k is the coefficient for the caste of SCs is zero. The value of exponential (β_k) is called *odds ratios*.

²⁴ For details, see the Madheswaran and Attewell (2007).

This is the ratio of odds for the category to the odds for the reference category controlling for the effects of covariates and other factors used in the regression.

1.8e Gini Coefficient (GC):

$$GC = \frac{1}{100 \times 100} \left| \sum_{i=1}^n X_i Y_{i+1} - \left(\sum X_{i+1} Y_i \right) \right|$$

where GC → Indicates the Gini Coefficient. GC widely used for a measure of inequality. First of all for using the method we have to arrange the value in ascending order. The value of GC range from 0 to 1. If the value of GC nearer to zero come than disparity of inequality less or if zero come then there is perfect equality or no inequality is there. If the value GC nearer to 1, there is inequality more or if the value becomes one, there is perfect inequality prevails.

1.8f Multiple Linear Regression: The Ordinary Linear Regression (OLS) is used in measurement of wages of casual labour in the work in farm as well as non farm sector in rural Odisha. The dependent variable is the wages and independent variable like age, household size, education, sex, loan access from formal and informal sources etc. In this regression we also used some categorical variable as independent variable like caste (as dummy), household type etc. The model as like as:

$$Y = \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon_i$$

Here Y is dependent (as wages) and β_1 , β_2 and up to β_n are coefficient of the model and X_1 , X_2 up to X_n are the variables like household size, assets, household type (if the households work as casual labour) education, income from farm and nonfarm etc.

1.8g Duncan Index or Index of Dissimilarity (1955): The Duncan Index or Index of Dissimilarity also known as Duncan Segregation Index. It is the best measure of occupational segregation based on gender, caste, groups etc. The value of Duncan Index ranges from zero to one.

$$Dc = \frac{1}{2} \sum_{i=1}^n \left| \frac{x_i}{X} - \frac{y_i}{Y} \right|$$

x_i is the (let) SCs population of the i th occupation; X is the total SCs caste population of the labour force or country. Like y_i is the OTHs caste populations of the i th occupation and Y represent the total Other caste population of the labour force or in the country. If the value of

DC come zero which indicate perfect equality or nearer to zero indicate inequality reduces and if the value 1 come indicate perfect inequality or nearer to one inequality increases. The index of dissimilarity is applicable to any categorical variables.

1.9 Chapterisation:

The study focuses on the ground of discrimination and inequality as follows: After a discussion on the relevance, scope, methodology, sampling design, database, objectives and hypotheses in the Introduction, characteristic of rural labour market, composition and structure of labour markets both national and state level figure explain in the second chapter. The objective the second chapter is to bring about the overall composition of labour market related to the societal point of view. It ends with the diversification of labour market related to societal regulation and principles on access to getting a job. The third chapter, focus on characteristics of sample household, agricultural labour composition related to social groups, land ownership and operational holding of land on the caste basis in respected villages. It also includes the livelihood pattern of household related to employment and principal sources of income, migration status, which is more emphasis on the agrarian structure of the four rural villages of the Odisha. The fourth chapter discusses the inequality of land and credit market across the social groups. Employment and wage discrimination in different occupation has been describe in chapter five. It analyses the various factor related to wage inequality and causes of structural discrimination of the labour market, related to the interlinked transition of the labour market, based on both primary as well as secondary data. In the sixth chapter, various features of caste-based discrimination both agriculture and non-agriculture labour markets related to other than wage difference. Discrimination of wages in rural casual labour markets in Odisha based on primary data explain in this chapter. It focuses on the basis of day to day life of the people related to old age dogma and treated as a low caste and untouchable of the deprived caste. Which indicate the major problem of the society even today like an underdeveloped village and also at where underprivileged people live. They born on the caste-based occupation and die on that caste occupation. In the seven chapter discuss the perception of people towards discrimination in a rural village on the access to village level property and participation in the village level festival, politics, spirituals occasion. How the lower caste underestimates in the commonplace on the basis of caste and how they live in the kind of higher caste. Concluding observations, major findings and a few policy recommendations are presented in the final chapter.

CHARACTERISTICS OF RURAL LABOUR MARKETS IN ODISHA

2.1 Introduction:

The growth of modern agriculture is based on both strong forward and backwards linkages with non-agriculture, particularly industry in the under-developed rural areas (Mellor, 1976). In an underdeveloped economy, agriculture is the main livelihood of the rural people, but development involves a process of sectoral shift of labour from agriculture to other, more productive sectors of the economy. The process of development also involves significant changes in the labour force.

In India, the majority of people lives in the rural areas, where their main occupation is only agriculture. The whole year they are engaged in agricultural activities as well as some forms of home-based work. The problems of rural unemployment and underemployment cannot be solved by the agriculture alone, due to the high demographic pressure of land and fragmentation of landholding¹. The elasticity of increase in employment as a result of an increase in the industrialisation is less, which directly forces labour to work in agriculture (Chadha, 1933). In Odisha, around 85 per cent of the population lives in rural areas, where they are mostly dependent on agriculture for their livelihoods. Given the low productivity of agriculture and the dominance of rain fed agriculture, employment opportunities in agriculture are limited to a few months². After the agricultural season, most workers stay at home and work as self-employed in household activities. Recently, there has been a growth of distress out-migration of labour from rural areas of Odisha (Mohapatra, 2012; Parida, 2016 and Mishra 2016).

In terms of most development indicators, Odisha is at the bottom among the states of India. In the year 2016-17, the per capita income of Odisha was Rs 61,678, while that of India was 81,805. The state is backward not in the resources but it backwards for the proper utilisation of resources, both natural as well as human resources³. In Odisha, worker

¹The average size of operational holdings has declined from 2.30 ha in 1970-71 to 1.15 ha in 2011-12 [Agriculture Census, 1970-71 (page-25) and 2011-12]. According to the NSS 70th (2012-13) round data, small and marginal ownership holdings account for 53.29 per cent of total ownership holdings in India.

²According to Bhalla and Singh (2009), agricultural productivity in Odisha was 6,690 rupees per hectare as against the all-India average of 8,460 Rs per ha. According to the Economic Survey of Odisha (2015-16), As per as Government of India estimates during 2011-12, only 29 per cent of area under principal crops in Odisha was irrigated as compared to 47 per cent of all India.

³Odisha is a store many rare mineral resources of country. The states produce enormous mineral including metallic, non-metallic and fuel minerals. Odisha is a very important mineral bearing states in the country. No

participation ratio is nearly same as the national level. In 2011, the state's worker participation ratio⁴ was 41.8 per cent and the national level was 39.8 per cent, which indicates around sixty per cent of the population depend on forty per cent of working population of the states. That indicates that the dependency ratio is high as compared to the other states. Although the state rural areas unemployment rate has declined in 68th round National Sample Survey (NSSO) 2011-12, to 2.5 per cent as compared to the 61st round of survey 6.5 per cent on 2004-05, unemployment and underemployment continue to remain significant aspects of the state's economy.

The characteristics of labour markets in Odisha are different on the regional basis. Broadly, Odisha is divided into three NSS regions: the coastal, northern and southern regions⁵. The coastal region of Odisha is more developed as relative to another region, but the dependence of labour in agriculture is same as another region. However, the degree of regional disparities is less than that in other states of India (Dubey 2009). Although coastal Odisha is relatively better developed than other parts of Odisha, but still, there are pockets of backwardness within the area⁶. Also, in terms of social development coastal Odisha retains the features of backwardness. In terms of caste-based discrimination, there are many instances where social attitudes are found to be deeply conservative and discriminatory in coastal Odisha.

Caste system is attached with religion basically with the Hinduism. On the basis of caste some groups are kept in the bottom of the caste ladder which are known as untouchables. They are isolated from the mainstream on the choice based occupation and human rights. Irrespective the constitutional provision about abolition of untouchability, but in the practice

other part of India is so rich mineral as the region of Mayurbhanj and Keonjhor districts of North. The states stand for the major potential production of Coal, Chromite, Nickel, Iron, Manganese, Bauxite and lead in India. The states literacy also high as compared to other states i.e., 72 per cent of state population are literate and the male and female literacy is 82 and 64 per cent respectively (Economic Survey 2015-16: 4/20).

⁴The work participation rate (WPR) is calculate by the total number worker from total population and multiplying the hundreds i.e., $\{ \text{Total number of Worker (which include both main and marginal workers)} / \text{Total population} * 100 \}$. Usually the age groups of population 15-59 years are workers. That means below 14 age and above 59 age groups are treated as dependence of population.

⁵The districts included in the coastal region are: Balasore, Bhadrak, Kendrapada, Jagatsinghpur, Cuttack, Jajpur, Nayagarh, Khurdha, Puri . The districts in the northern Odisha region are: Baragarh, Jharsuguda, Sambalpur, Debagarh, Sundargarh, Keonjhor, Mayurbhanj, Dhenkanal, Anugul and the districts included in the southern Odisha region are Ganjam, Gajapati, Kandhamal, Baudha, Sonepur, Balangir, Nuapada, Kalahandi, Rayagarh, Nabarangapur, Korapur, Malkangiri.

⁶For example, the hilly tribal village of Nagada of Korei block at Jajpur districts is came into the issues of child death due to malnourished and malaria. The juanga tribes are lives still date as the early age life. The lack of drinking water makes matters worse. The village population of the tribe numbers 419, including 127 children aged 0-5. Most children have symptoms of malnutrition. Even now the village have no road and no one child go the school. There are no water supply facilities as well as medical facilities. See more details Asit Ranjan Mishra, (2017) Article: "Nagada: A journey into India's heart of darkness", Mint, 3rd March, 2017.

rural areas still people treated like untouchable. It is more in the religion based culture society like in the coastal Odisha. In response to many agitation and protest the Government of Odisha facilitate to enact Orissa temple Entry Authorization Act 1948. So after that Dalits can enter to the temple. However they are not able to enter in the Jagannath culture. Like in village of Keredagada⁷ Dalits are not allowed to enter the temple, although in the wall of temple written as all Hindus can enter to the temple. So in the village priest and committee member of the temple make nine hole for the worship of God by Dalits rather for other Hindus can allowed to enter the main lion gate. So by the name of culture and privacy discriminate some section of Hindus like untouchable. They are treated like not Hindu although they are belong to Hindu religion. The relationship between caste of Dalits and Hindus bifurcated. Hindu caste treated as touchable but among the Hindus of Dalits are treated like untouchable. So in the village of Keredagada Dalits are not allowed to enter the temple main gate but when some Dalits came from outside the village or relatives visit to temple priest can allow and behave gently with them (Dash, 2013).

O Malley (1906) explains that the occupation of the certain groups converts to the caste groups on the region of eastern part of the country. The attachment with profession further identify their caste or they are called as their occupation. The geographical destination not changed and they settled with the community for the longer period of time. Like some coastal belt, people chose their occupation like catch the fish, so they are called as Keuta. Some people are work like slaves on the land of the landlord or rich person, so they are attached to the work of soil whole of the year, they are called as Pano. Their rank in the bottom of the classes and hereditary ways serve the high class or rich people. The proportion of Dalits lived in coastal belt more than other caste and in northern part tribals like Kandos, Santal and Bhumij (whose main occupation attached with forest) much more than higher caste. In the eastern side like coastal areas of Bay Bengal, (some part stay in Midnapore at West Bengal), occupation based caste emerges in the forthcoming period of time (O Malley, 1906).

The expansion of income and employment is needed for the growth of the state economy. The actual rate of expansion of labour force in any economy depends on the growth of population, working-age population, labour force participation rates, educational enrolment at a higher level. So the state's progress depends on the growth of the above factors and increases in the employment opportunity in the different sectors. Creation of job opportunity

⁷ It is located Rajnagar block of Kendrapada district of Odisha. In this village 1400 household lived and among them 400 households are belong to Dalits.

increases the SGDP (state gross domestic product) from the priority sector as well as from the primary sector. The pattern and growth of employment and unemployment are estimated from the different sectors, points to their relative importance in employment creation.

Distress out-migration has been reported from many parts of the state⁸. Not only from the western part of the states, workers are migrating, but also from the coastal districts like Khurda, and Ganjam, have sent 19,293 and 13,849 migrant labourers respectively in the year of 2008 (The Hindu, 27th June, 2010). More than 30 million people in India are seasonal migration labourers. Out of this, Odisha share 2.5 million who are migrant in the offseason after harvesting⁹. The share of region wise state migration in 2008 shows that around 45 per cent from total state migration goes from coastal belt and summation of both southern and northern part compose around 55 per cent. The inter-state migration of the state figure reported by UNDP-HDR that only in Surat (Gujarat) 9 lakhs migrant labour goes from the state and one international non-government organisation (INGO) suggest that around 2 lakh people from western Odisha seasonally migrated to the neighbour state Andhra Pradesh as work in brick kilns industries (Daniel, 2010). So far as the growth of non-farm employment in the state is concerned, it is constrained by the rate and nature of growth of the manufacturing and service sectors although it is revive from the earlier period as compared to 2014-15. The real growth rate of service and manufacture sector of Odisha in 2014-15 (as base 2011-12) was 9.38 per cent and 8.31 per cent respectively. Although state manufacturing growth rate much higher than India but it is not much supported to employment generation¹⁰. There has been a growth of these sectors in the recent past, in terms of employment growth not much scope for labour absorption. Moreover, there is a skill mismatch between the rural workers and the employment opportunities in the formal sector. As a result most of the workers end up as casual labour or self-employed in the low paying urban informal sector (Samal 1998; 2008). Because the price level of basic goods rises as the progress of the economy, the precariously employed workers are not able to buy the basic

⁸The problem is acute in the districts like Balangir, Koraput, Malkangiri, Nayagarh and Keonjhor. A large number of workers migrate for work to the neighbour states and face many problems like physical and mental harassment and exploitation in the hands of middlemen and employers. Balangir district remains on the top of the list as far as its migration of states workers. around 33,035 workers from the district were working away from their home in nearby and other states of the country.

⁹ See Odisha Migration, 24 Nov, 2010, URL: <http://orissamigration.blogspot.com/2010/11/nowhere-people-of-odisha.html>.

¹⁰ India's manufacturing real growth rate in 2014-15 was 5.53 per cent. See Odisha Economic Survey 2015-16, pg. 2/03.

need for their family requirement, so they are bound to go for work out of states as a migrant labour or work under various forms of bondage.

2.2 Sources of Data:

In this chapter an attempt has been made to develop an outline of the key characteristics of the labour market in Odisha, with a focus on the rural labour markets. Data from various sources has been used. Due to the varying concept and different criteria adopted in the measurement of workers, definitions of key variables change as per as the different sources of data like Census, NSSO and Labour Bureau. Among them, Census provide the rich sources of employment data. According to Census of India, a worker is defined as a person who has participated in any productive activity at any time during the survey/reference period. The workers divided as two broad categories like main workers and marginal workers. The main worker is the one who is working or participating for not less than six months and the marginal worker is the who works for less than six months. Agricultural labour was a person who work for more than half of the total number of days in agriculture labour in the reference year. Agricultural workers is the summation of cultivator and agricultural labour (Odisha Economic Survey, 2013-14:316). As per as NSSO definition workers as the person who are either working or employed or seeking or available for work (or unemployed) are treated as labour force. So the summation of employed and unemployed person out of total population constitutes the Labour Force Participation Rate (LFPR). But the work participation rate (WPR) constitutes only the employed person out of total workers¹¹.

The share of Odisha in the population of the country was 3.47 per cent and around 1.75 crore people are workers who are associated with any economically productive activity in the year of 2011. As per as the Census 2011, 41.79 per cent of population are actively work out of total population of the state (Economic Survey, 2015-16:2/08). The share of workers is higher in the rural areas as compare to the urban areas i.e., of the total workers, 86.1 per cent are

¹¹As per as Census: Total Population = Total Workers + Total Non-Workers. Total Workers= main worker + Marginal worker. WPR= Total worker (i.e., main + marginal worker)/Total Population *100. As per as NSSO: Human activity divided three activities: working (or employed); seeking/available for work (or unemployed) and out of labour force (means not employed nor seeking), summation of all these indicate total population. **Employed Status** = Self employed (NSSO code 11, 12, 21) + Regular wages / Salaries Employers (NSSO code 31) + Casual Labour (NSSO code 41,42, 51, 61, 62, 71, 72). **Unemployment Status** measure by NSSO code 81 and 82. **Out of Labour force** Measure by NSSO code 91, 92, 93, 94, 95, 97, 98, 99. Employed + unemployed = Labour force, so LFPR = (employed + unemployed)/total population*100. WPR (work participation rate) = only employed person/ total labour force*100.

from rural and rest 13.9 per cent are from urban Odisha. One of the significant features of the Odisha economy is that the percentage of female workers is very less as compare to the other states. Out of total workers of the state nearly 68 per cent of the worker are male workers and rest only 32 per cent of worker are female workers.

2.3 The Features of Economic Development in Odisha:

Odisha is an underdeveloped state in the country where the majority of people are engaged in agriculture. The labour force of the states concentrated on the casual labour both in agriculture and non-agriculture. The rural areas most of the people are non-workers who directly depend on the income of the other family members. Among the key features of the economy of the state of Odisha are its relative social and economic backwardness. The persisting dominance of a section of the society through the labour market, capital market and political sphere is an important aspect of the society in Odisha. The process of dominance affects the large section of the states whose main occupation as agricultural labour. The large section of the poor artisan, landless agricultural labour, small farmers lives at the subsistence level of living (Mohanty, 2014). There are various historical, geographical and socio-cultural reasons behind the dominance of specific caste-class combination in Odisha. Such dominance of the upper castes have led to caste antagonisms (Sahu, 1994).

Table 2.1 Some socio-economic Indicator of Odisha and India

Development Indicators	Years	Odisha	India
Rural Literacy Male (%)	2001	75.3	75.3
	2011	82.4	82.1
Infant Mortality Rate (Per 1000 Birth)	2001	98	71
	2011	61	47
Sex Ratio Total (Per 1000 Male)	2001	972	933
	2011	978	940
Urban Population (%)	2001	15	27.8
	2011	16.7	31.2
HDI	1999-2000	0.275	0.387
	2007-08	0.362	0.467
Poverty Headcount Ratio (%)	2004-05	57.2	37.2
	2009-10	37	29.8
MPCE (Rs)*	1993-94	245.94	328.18
	2004-05	460.68	700

Sources: Mohanty, EPW, 2014. *MPCE from NSS 50th and 61st rounds; for HDI *Indian Human Development Report 2011*; for SDI *India Social Development Report 2012*; Census of India 2011; *Economic Survey 2012-13*; NSS 64th and 66th rounds.

Such a dominance of the upper castes groups over the others has also been affecting the inter-group social relationships and it also has led to certain political consequences. Because politics continues to be urban-based rather than rural, the questions of the rights of the vulnerable sections are not adequately addressed. This has further created pockets of isolation and backwardness within the state (Currie, 2000).

On the basis of different socio-economic indicators the rural Odisha lag behind the other states (Table 2.1). The share of agriculture in employment decreased from 73.8 per cent in 1993-94 to 60.8 per cent in 2009-10, still it is a giant share of employment of the state (Table 2.2). The share of non-agricultural employment changed has steadily increased, particularly during 1999-00 to 2009-10. The share of manufacturing within the non-agricultural sector employment of the state 8.8 per cent which is less in compared to the previous period. Although in Odisha more than 60 per cent of workers engaged in agricultural or allied activities but the composition of state GDP (i.e., NSDP) is only 26.38 per cent. So, in the states large section of workers whose productivity is low. In the theoretical literature, such workers are treated as disguised unemployed, whose productivity is close to zero, and this is one of the major problem of Indian agriculture as well as undeveloped states. person. The share of NSDP from agriculture 40.25 in 1993-94 to 26.38 in 2009-10, which is considered to be a good indicator for development. The shares of secondary and tertiary sector have slowly increased in the reference period. Many developed states whose tertiary and secondary sector composition of SGDP more by engaged proportionately fewer workers of the state. The backwardness of agriculture and low levels of industrialisation in Odisha has been one of the major causes of the slow transformation of social relations in the rural areas.

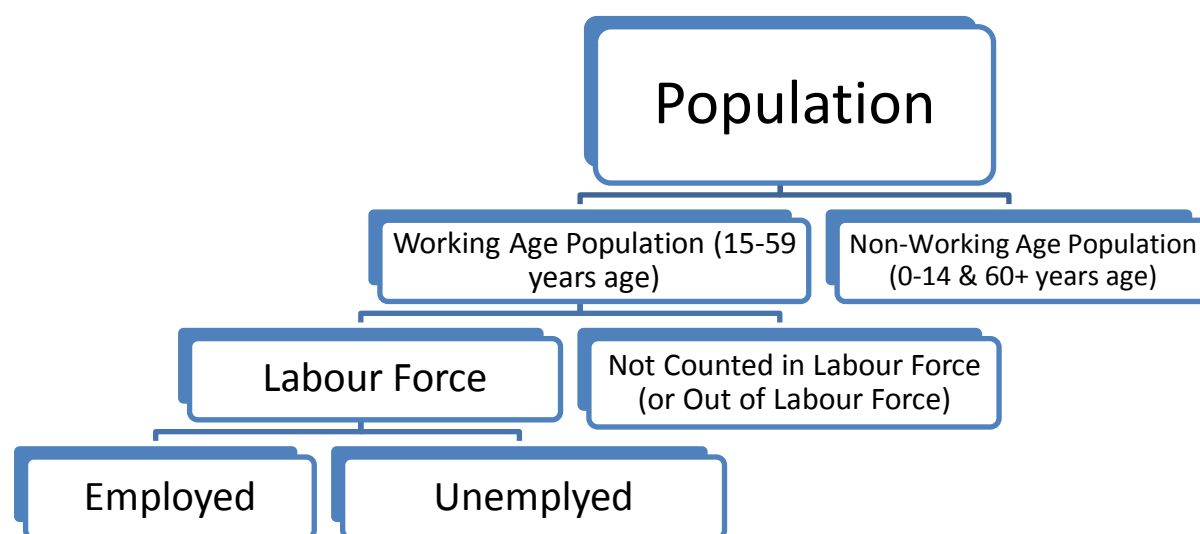
Table 2.2 Structure of Employment and NSDP in Odisha

Sectoral Distribution of Workers (%)			
<i>Sectors & Years</i>	1993-94	1999-2000	2009-10
Agriculture	73.8	71	60.8
Non-Agriculture	26.2	29	39.2
Manufacturing % of Non-agriculture	8.2	10	8.8
<i>Sectors</i>	Composition of NSDP by Broad Sector at 2004-05 Base (%)		
Primary	41.25	32.27	26.38
Secondary	26.37	25.52	18.38
Tertiary	11.05	14.41	26.88
Per capita NSDP at 2004-05 prices (Rs)			
<i>State & Year</i>	1990-91	2000-01	2010-11
Odisha	10,452	14,263	23,875

Sources: Mohanty, EPW, 2014

The conceptual categorisation of population in to labour force sub-categories on the basis of working age is shown in the Fig.2.1. The total population is divided two groups on the basis of working age and after that, some are working and other working-age populations stay out of labour force due to their natural disability or engaged other illegal activities. The labour force constitutes the summation of the employed and unemployed worker from the working age population.

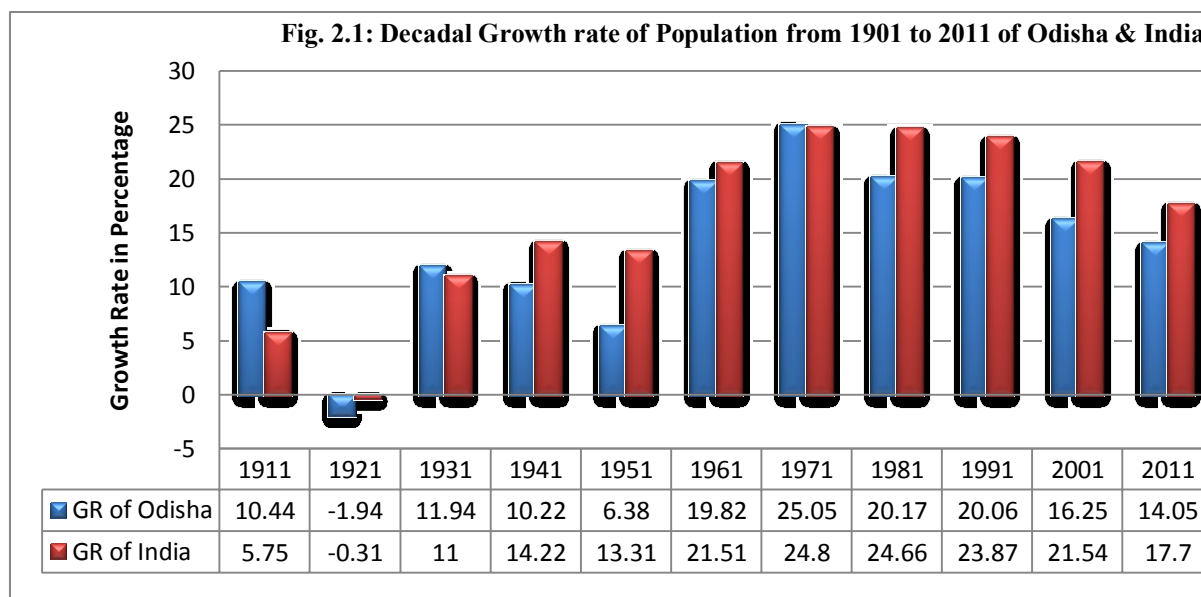
Box 2.1: Categorisation of the Labour Force:



Sources: Odisha Economic Review.

2.3.1 Structural Composition and growth rate of Population: In the pre Independence era population of the Indian economy, population growth was slow due to frequent epidemics, wide-spread diseases, and also due to lack of health care. Generally, the life expectancy of Indian was very low. Except for some regions of Indian provinces like Kolkata, Mumbai, Chennai, Delhi all the regions of the country were suffering from chronic poverty. The year of 1921, was a year of the *great divide* in the demographic history of India. Because the mortality rate of India decreased during 1911-1921 year. The decadal growth rate of population was -1.94 per cent in India and -0.31 was for Odisha. The **Fig. 2.1.** indicates the decadal growth of population from pre-independence period to 2011. After 1921, the growth rate of population steeply increased, to some extent it falls in the time of Bengal famine (1942-43) and division of Indian in 1947. The population growth was below one per cent before 1950, but after that it increased at the rate of more than two per cent per annum. The average growth rate of population from 1961 to 1981, was 2.2 per cent per annum. After that, although the growth rate of population per annum falls slowly, but the absolute number of

population continued to increase. From 1931 to 1950 the country's decadal population growth decreased but in Odisha, it increased up to 1941, and there after it slightly falls. After 1950, both of state and India, the population increased up to 1971. But after 1971, the decadal growth rate of the population drastically fall of both state and country which is depicted in **Fig. 2.1**. The decadal growth of population falls from 2001 to 2011 at a much high rate than the previous period for all over the country due to various step was taken by the government to control population explosion.



Sources: Census of India, 2011., Series A2, Odisha, Population Census Abstract, Total (Rural and Urban)

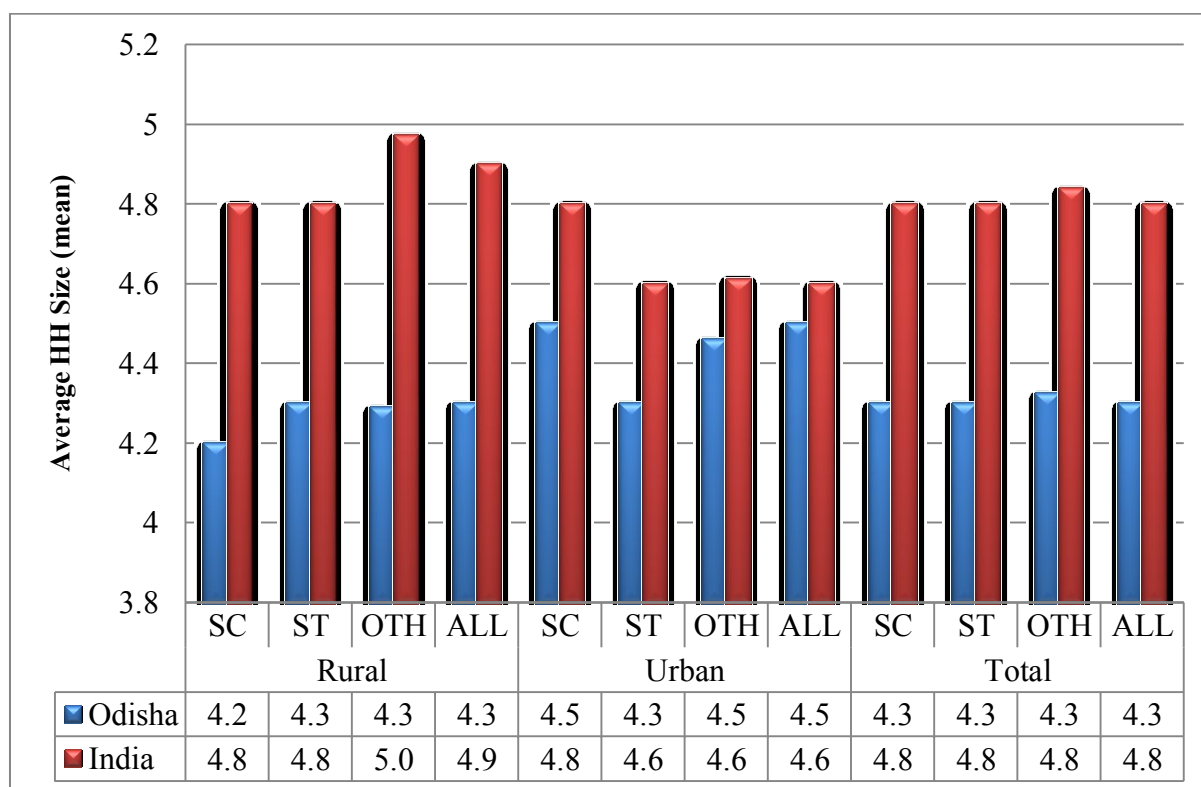
The state of Odisha figure as same as the country on the population growth rate from the earlier period to till date. All the coastal district of Odisha population increased in increasing rate up to 1971, but after that, it falls slowly. In, 1971, districts like Balasore and Khurdha, having more than 30 per cent of decadal population growth which was highest among the districts of the state. In the districts like Balasore, Bhadrak, Kendrapara, Jagatsinghpur and Jajpur population growth rates fell drastically during 2001-11. This is due to maybe for the awareness about population control measure and progress of the education. The details of the district wise growth rate of population from 1911 to 2011 see the **Appendix 2.2**.

The proportion of the male and female population of both India and state are depicted in **Appendix 2.4**, which indicate that in India, the share of the male population is slightly higher than that of the female during 1901 to 2011. But in the case of Odisha, the proportion of the female population was slightly higher than that of males up to 1950. After that, the state male

population become larger than female although the gap is very less. In 2011, 51.47 per cent was male and 48.53 per cent was female in India but in Odisha, it was 50.54 for male and 49.46 for female for the respective years. The sex ratio of Odisha (979 female per 1000 male) is higher than the country (940 female per 1000 male) according to the 2011 census data.

The district wise male-female population of the Odisha is placed in **Appendix 2.3**. There is no such gap between the male and female population in any of the districts except Nayagarh district. Because in Nayagarh, from 1901 to 1961 female population proportion was higher than male but after 1961 it falls from 50.52 per cent of female to 47.79. So the district sex ratio drastically falls in comparison to another district of the state. In the districts like Cuttack and Khurdha, the proportion of female is less than that of males in comparison to other coastal districts. This may be due to illegal sex determination clinic operation on the town and municipal areas. The average household size of Odisha and India is shown in **Fig. 2.2.**, which indicates the social group-wise average number of population per household in 2011.

Fig. 2.2: Social Groups wise Average household size of Odisha and India in 2011



Sources: Census of India, 2011, Series A2, Odisha, Population Census Abstract, Total, Rural and Urban.

In rural areas, the average household size for India 4.8 for both scheduled caste and scheduled tribes but for others it is 4.9. But in Odisha for the scheduled caste average

household size 4.2 and for scheduled tribes and other 4.3 people. In urban areas, scheduled caste and others household size 4.5 per household but 4.3 people per scheduled tribes cases for Odisha. In India, for the urban areas for scheduled caste it is 4.8 person per household but for both scheduled tribes and other it is 4.6 person per household. In total for the both Odisha and India, all the social groups household size is almost the same i.e., 4.3 person per household for Odisha and 4.8 people per household for India.

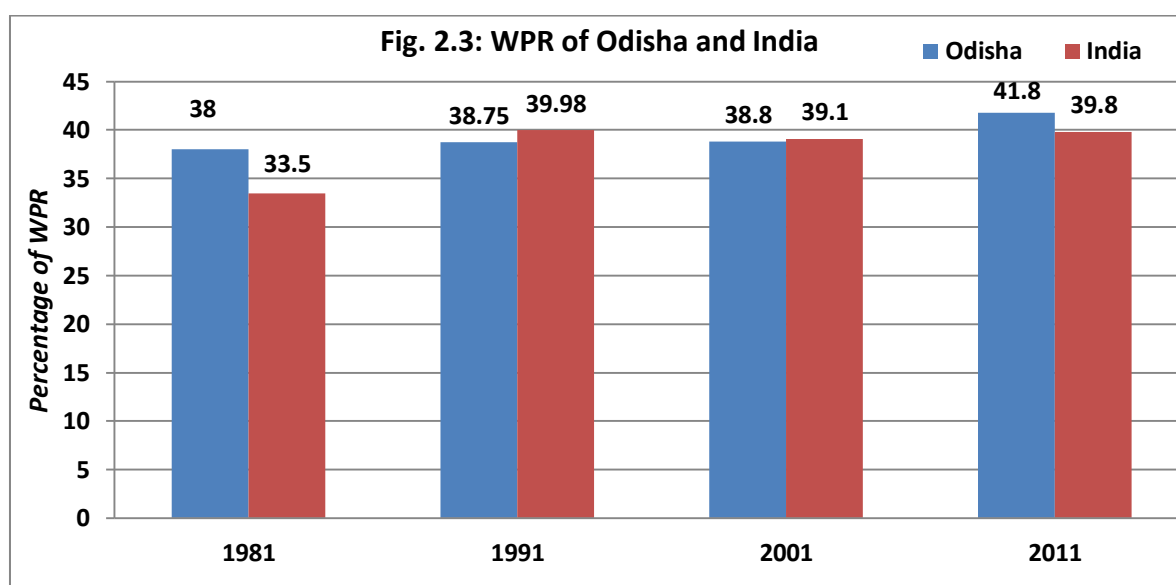
2.3.2 Worker Participation Ratio (WPR):

The worker participation rate determines the percentage of worker working in any economically productive activities in the reference period of time out of total population. The WPR indicate the share of workers in total population who are able to add their productivity in the states GDP. The WPR is more in economically advanced states like Maharashtra, Gujarat, Tamil Nadu and Kerala than the other region of the country. The worker participation rate for the states and India explain in also in **Fig. 2.3**. Which indicate the changes of a worker in any economically productive activity both Odisha and India nearly same except the year of 1981 census. In the time of 1981, the gap of WPR is around five per cent, which is narrow down in the next successive period of the census. The change in the profession of worker it raises the participation more and more labour in the workforce. Most of the backward states the participation rate in the workforce is less. These states one of the major problems is lack of industrialisation and working age groups people are less.

The labour market characteristics could be captured through the work participation rate (WPR) and labour force participation rate (LFPR)¹². Work Participation Rate is the ratio of total workers (include main and marginal worker) from total population. The labour force participation rate of Odisha is less as compared to the other states and national average. That is due to maybe for the worker do not find work or worker are not to work in the prevailing wage rate or they are out of working age groups people.

¹²Both are same only composition basis different. As per as *Census of India*, WPR calculated from Total population. {That means WPR equals to (Total workers/Total population) or (Main + Marginal workers/Total population)}. Because Total Population = main workers + marginal workers + Non-workers. But as per as *NSSO three broad activity status* explain for measure of WPR/LFPR i.e., employed, unemployed, out of labour force. These are measure through usual activity status also called usual status (US) and current activity status (CAS) also called current status (CS). Usual status measure through usual principal status (ups) and usual status and usual subsidiary status (ups+uss). Current activity status (CAS) measure by current weekly status (cws) and current daily status (cnds). WPR/LFPR calculated from Total population as No of Employed + No of Unemployed person/ Total Population.

The trends of work participation rate although rise continuously at the national level from 1981 to the 2011 year. But the state situation some extent different. Because the change of WPR of states does not much change in the four decades. Which indicate the WPR of states only two per cent more than the national level in 2011 period. Although the SGDP decrease from agriculture in the last four decades still the states large section of the population depend on the agriculture sector. The persistent increase engaged of people in agriculture is due to maybe for these reasons: (i) Growth of population, (ii) increase in working age population, (iii) increase in the labour force participation rate. Both in 191 and 2001, Odisha work participation rate slightly less than the national figure but in 2011, Odisha WPR become 2 per cent more than India explained in Fig. 2.3.



Sources: Computed from Population Census Abstracts, 2011 and Economic Survey 2014-15

2.3.3 Workers and Non-workers of Rural Odisha: The population is the composition of workers and non-workers. Although, the growth rate of the population of the state has decreased from 2001 to 2011 census, but the share of non-worker of the state still large percentage than the workers. The trends of composition of workers from 1991 census to 2011 census shows in Table 2.3. The share of workers marginally increase from 38.75 per cent in 1991 to 40.23 per cent in 2001 census and it is further increase to 43.19 per cent out of total population. Contrary the share of non-workers of the states marginally decrease from 1991 census to 2011 census.

The social group wise worker from 1991 to 2011 census describe that among the scheduled caste workers marginally increase from 1991 to 2011 period but after it is rise to share 42.49 in 2011 from 40.33 per cent in 2001. The scheduled tribe workers slightly fall from in 2001 census in compared to 1991 census, but after that again it is rise to 50.59 per cent out of total population. The share of worker in the higher caste (other backward caste and others) increase the share from 33.64 per cent to 36.13 per cent in 1991 census to 2001 census, further it is again rise the share to 40.04 per cent out of total higher caste population. The majority of people in rural Odisha are non-workers who are depend on the other family member. So the dependency ratio of the rural Odisha much higher than the urban Odisha. The share of non-workers among the social groups in 2011 census around 60 per cent in higher caste, than compared to scheduled caste (57.51 per cent) and scheduled tribes (49.41 per cent). The share of non-workers in scheduled tribes castes less compared to the scheduled caste and higher caste. Over the three period share of non workers of rural Odisha decreases due to share of workers marginally increase.

The growth rate of workers and non workers has been explain in the same Table 2.3. The growth rate of workers from 1991 census to 2001 census was 20.89 per cent but it is fall in 2011 census. Among the social groups from 1991 census to 2001 census, growth rate of scheduled caste workers 17.89 per cent, for scheduled tribes 14.80 per cent and for other it is 20.89 per cent. If we analyze from 2001 census to 2011 census the growth rate of workers 19.99 per cent and the growth rate of workers higher in scheduled caste (21.81 per cent), than other caste (20.25 per cent) and scheduled tribe (18.54 per cent). But the growth rate of non-workers of rural Odisha fall in the analyze of three census period.

Table 2.3 Caste wise Composition of Workers and non-workers and its growth rate in Rural Odisha

Social Groups	Proportion of workers and non-workers						Growth Rate			
	Census 1991		Census 2001		Census 2011		Worker		Non-worker	
	Workers	Non-workers	Workers	Non-workers	Workers	Non-workers	1991 to 2001	2001 to 2011	1991 to 2001	2001 to 2011
SCs	40.19	59.81	40.33	59.67	42.49	57.51	17.9	21.81	17.2	11.43
STs	50.13	49.87	49.86	50.14	50.59	49.41	14.8	18.54	16.02	15.16
OTH	33.64	66.36	36.13	63.87	40.04	59.96	20.9	20.25	8.37	1.85
ALL	38.75	61.25	40.23	59.77	43.19	56.81	18.5	19.99	11.32	6.24

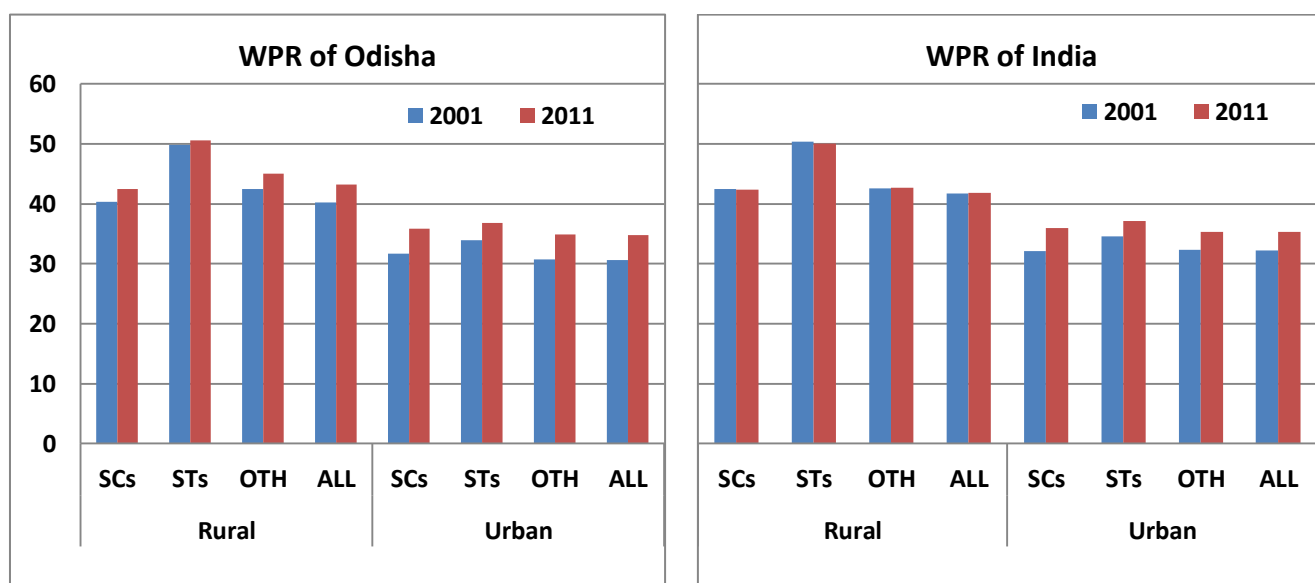
Sources: Primary Census Abstracts, 1991, 2001 and 2011. Note: Total population = worker + non-workers.

The growth rate drastically fall from 11.32 per cent to 6.24 per cent from 1991 to 2001 census and 2001 census to 2011 census. In the same period growth rate of non-workers

among the social group also decreases. In the period of 1991 to 2001 census and 2001 to 2011 census growth rate of non-workers of scheduled caste 17.20 per cent and 11.43 per cent; for scheduled tribes 16.02 per cent and 15.16 per cent; and for other it is 8.37 per cent to 1.85 per cent respective in the given period of time.

Among the social groups of work participation ratio of the state and India in 2001 and 2011 for rural, urban and total explained in **Fig. 2.4**. In rural areas of Odisha, WPR of scheduled 49.86 per cent in 2001 which is highest among other social groups and in other two groups and for all caste around 40 per cent are working for population. But in 2011, WPR increased from 40.23 per cent to 43.19 per cent for all caste, it also increases each of social groups in compare to 2001 census. The urban areas of Odisha also WPR increase in all social groups from 2001 to 2011 periods. The overall study of the all social groups WPR increased in the given period of time of the state. In the analysis of Indian figure, marginal increase WPR in all caste from 2001 to 2011 period in rural areas and total (rural plus urban). In urban areas, WPR of India increased from 32.25 to 35.31 per cent from 2001 to 2011 time. The WPR is higher in scheduled tribes cases than the other two groups of the country both in the two time periods. In urban areas, more or less in all social groups WPR within the range of 32 per cent to 35 per cent in both period except scheduled tribes 37.18 per cent of WPR in 2011.

Fig. 2.4: Social Groups wise Work Participation Rates (WPR) of Odisha and India in 2001 and 2011



Sources: Census of India, 2001 and 2011, Series: B1. Note: Work Participation Rates = $\{Total\ Workers\ (Main + Marginal) / Total\ Population\} * 100$.

The WPR of scheduled caste is highest in for total (rural plus urban) in 2011 and 2011 census in India among all the social groups explained in **Fig. 2.4**. Worker participation ratio of Odisha and India are explained in the above table as a stagnation of change between states and nation., which indicate the changes in last two decade both national and state figure some extent is same. The extent of change in work participation rate (WPR) in 2011 census both states and country was higher than previous years.

The social groups wise WPR of coastal district of Odisha in rural areas from 2001 to 2011 census has been explaining in **Table 2.4**. The WPR for all caste is highest in Cuttack among the other coastal district of Odisha in 2001 census. It is increased in all the district from 2001 to 2011 census period of the rural areas. But WPR increased from 2001 to 2011 period in Balasore was highest among the other districts i.e., 32.13 per cent was in 2001 but it is rise to 40.98 per cent in 2011. In the scheduled caste cases, Cuttack (40.09 per cent) and Nayagarh (37.78 per cent) has been placed in the first and second rand on the WPR among the other coastal districts of the state. The all-district scheduled caste WPR increase from 2001 to 2011 period but the rate of increase in Balasore was higher in comparison to other districts i.e., 31.15 to 39.86 per cent in respective periods. On this period in Cuttack WPR is marginally fall in the scheduled caste. In the scheduled tribe cases WPR much higher than the other two social groups in all states in both time periods. Except for Jajpur, all the coastal belt districts of Odisha, scheduled tribes WPR more than 40 per cent. In Jagatsinghpur, it was 55.3 per cent which was highest among the other states in 2001, but in 2011 it was fall to 39.41 per cent.

Table 2.4 Social Groups wise WPR in Coastal Districts of Rural Odisha 2001 and 2011

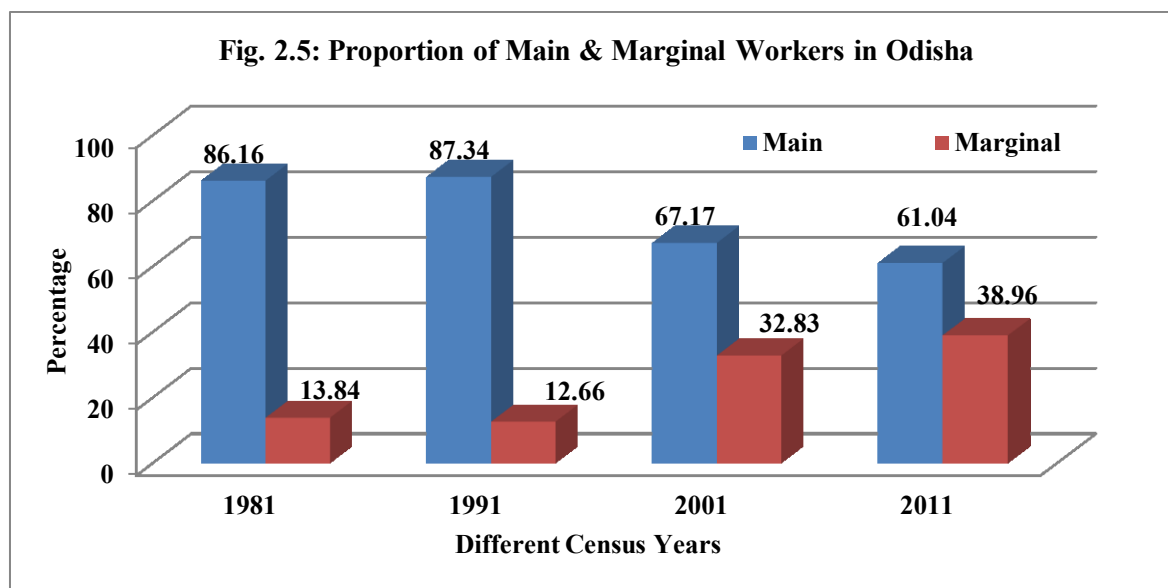
State & Districts Name	2001				2011			
	SCs	STs	OTH	All Caste	SCs	STs	OTH	All Caste
ORISSA	40.33	49.9	42.42	40.23	42.49	50.59	45.07	43.19
Baleswar	31.15	42.7	33.68	32.13	39.86	47.31	42.11	40.98
Bhadrak	30.98	41.4	28.82	29.08	31.63	40.21	31.2	31.14
Kendrapara	31.85	46.2	29.58	29.96	33.36	36.31	32.18	32.41
Jagatsinghapur	35.84	55.3	29.61	30.85	38.99	39.41	34.75	35.69
Cuttack	40.09	48	34.12	34.76	39.31	44.39	35.84	36.22
Jajapur	29.45	36.5	27.78	27.49	30.85	35.12	30.53	30.24
Nayagarh	37.78	48.6	33.9	33.54	38.58	48.61	36.53	36.04
Khordha	34.97	44.2	29.28	29.33	37.95	47.6	34.43	34.23
Puri	36.33	40.4	28.44	29.95	41.4	43.62	35.65	36.82

Sources: Census of India, 2001 and 2011, Series: B1. Note: Work Participation Rates(WPR) = {Total Workers (Main + Marginal)/ Total Population}*100. For URBAN and TOTAL see **Appendix 2.5**. The OTH include OBCs.

From 2001 to 2011 period of the scheduled tribes WPR fall Bhadrak, Kendrapada, Jagatsinghpur, Cuttack and Jajpur, but in states, it is rise marginally from 49.9 per cent to 50.59 per cent. The districts like Balasore, Khurdha and Nayagarh WPR in scheduled tribes increased in the given period of time. In the Other (including OBCs) around 42 per cent are working in 2001. Three coastal districts like Balasore, Cuttack and Nayagarh having more than 30 per cent WPR out of total population. All the districts WPR increased from 2001 to 2011 time periods but in Balasore, it was highest from 33.68 per cent to 42.11 per cent. Across the social groups, WPR was highest in the scheduled tribes for both period of time and the second position occupies by the Other caste. Across the districts, it is all varies as per as the proportion of population of the respective districts in the given period. The details of urban and total WPR for the coastal district is mentioned in **Appendix 2.5**.

2.3.4 Main and Marginal Workers of Rural Odisha: The definition of main workers as per as Census, the person who work more than six months (normally more than 180 days) is treated as main workers and those are work less than six months are called marginal workers. It is calculate from total workers. The proportion share and change over the period of time main and marginal worker of the states in last four decades is shown in the **Fig. 2.5**. In 2011 census the share of marginal worker out of total workers increases from 32.83 per cent to 38.96 per cent as compared to the preceding period. The proportion of main and marginal workers of Odisha changes in the different census year. In the period of 1981 and 1991, the concentration of the main worker was varied in compare to the next two successive years of the census. But after that, the percentage of the main worker drastically fall in 2001 and 2011 census. It shows that the state's main worker falls after the certain time. The states around 40 per cent of worker work less than six months on an average of a year. The main worker is slowly falling and the marginal worker mildly rises in the recent census period, which indicate the states worker stay more unemployed and it is slowly rises.

From the decadal variation of the composition of main and marginal workers which is depicted in **Fig. 2.5**. indirectly shows main workers decreases as per as population increase of the state. Although we cannot say those are working less than six months are unemployed but as per as the Census definition they are not main workers i.e., called marginal workers. The under developed state like Odisha share of marginal workers increases over the period.



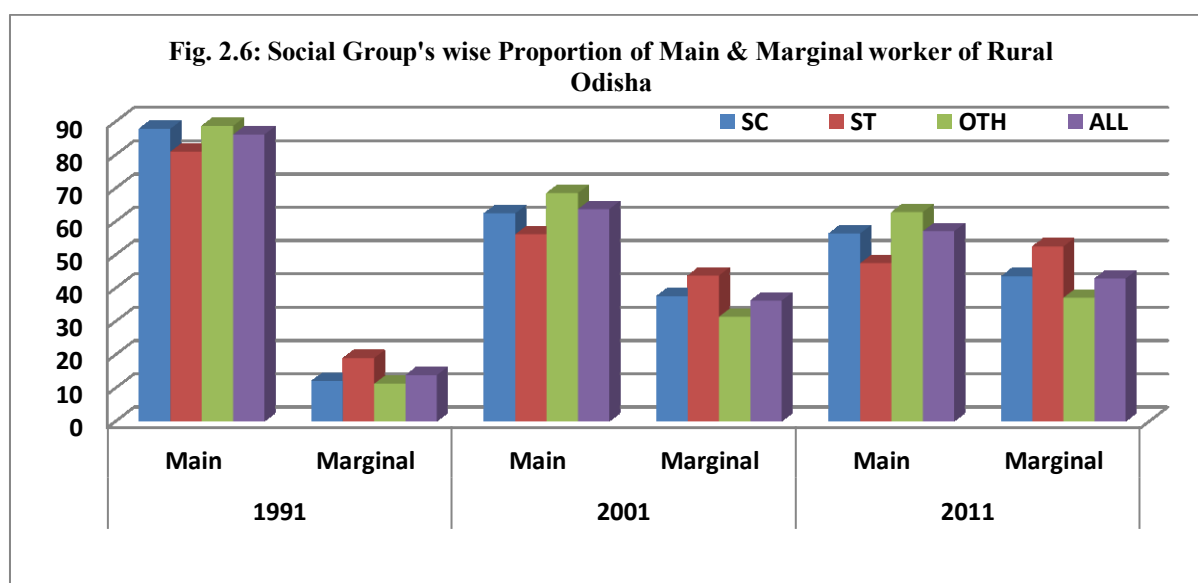
Sources: Computed from Population Census Abstracts, 2011 and Economic Survey 2014-15. It is Total

The social group wise rural Odisha main and marginal workers explain in **Fig 2.6**. In rural Odisha dependency rate¹³ more and among the worker some are marginal workers, so the people of rural areas most of the time sited in the home. Among the social groups tribes main workers are less both in Odisha and national level as per as 2011 census. The trend of marginal worker in rural areas of Odisha increases from 1991 to 2011 census. The share of main workers of rural Odisha fall from 86.13 per cent in 1991 census to 63.74 per cent in 2001 census and it is decrease to 57.10 per cent out of total workers. Contrary, in the marginal workers increases from 13.87 per cent share in 191 census to 42.90 per cent share in 2011 census. Among the social groups, scheduled tribes main workers share much less than compared to scheduled castes and other caste. The share of main workers of scheduled caste was 87.85 per cent in 1991 but the share fall to 62.44 per cent in 2001 and again decrease the share to 56.42 per cent out of total workers. On the other hand marginal workers share of scheduled caste increases from 12.15 per cent to 43.58 per cent in 2011 census. Like the scheduled caste scheduled tribes main worker share decreases over the period of time. The higher caste main workers of the states much more than the lower caste. Because the higher caste people attached with some activities and support to their family rather than depend on them. But in the lower caste cases maximum member of the family depend on the some earning member of the family. Although the share of main worker fall of higher caste from 88.71 per cent to 62.85 per cent, but the share of main worker more than the other two social

¹³ See more details of Table 2.3, where share of worker and non-worker explain.

groups. On the other hand higher caste marginal workers only 37.15 per cent in 2011 census in compare to 43.58 per cent for scheduled caste and 52.50 per cent in scheduled tribes.

The trend of main and marginal workers of the state explain in **Fig.2.6**. That indicates the share of main workers decreases and marginal workers increases over the period of all social groups. Although the higher caste main workers much more than the lower caste in 2011 census but as compared to the previous period it is decreases. Which indicate the state rural people work less than six months. That may be due to they are not find work or otherwise they are not interested to work in the given period of time.



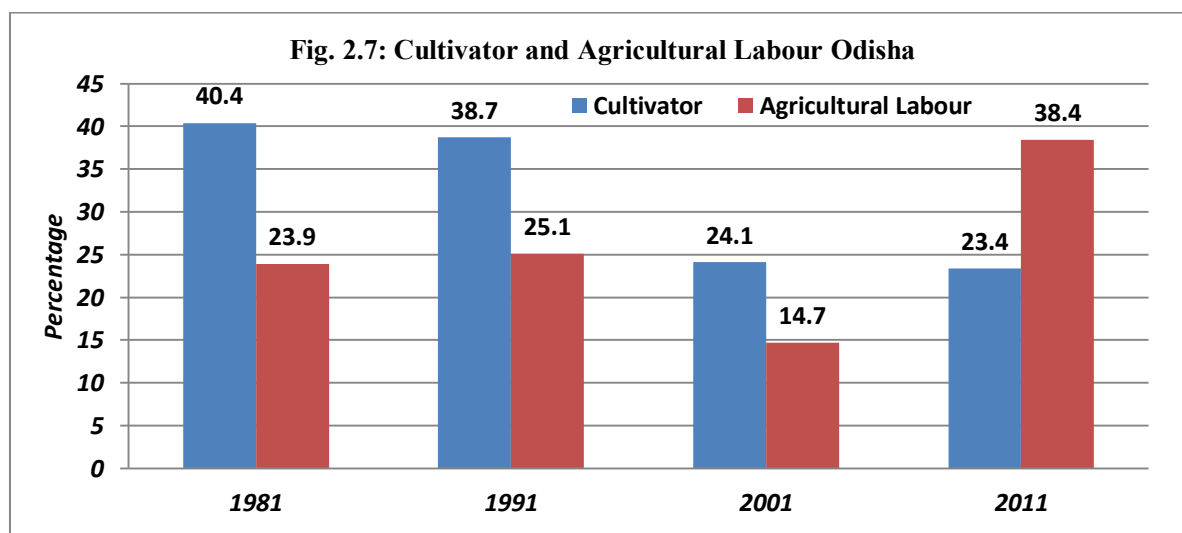
Sources: PCA, Note: It is only Rural Odisha. Total worker = main + marginal workers, which indicate 100 per cent

2.3.5 Share of Cultivators and Agricultural Labourers of Odisha:

Odisha is a predominantly agricultural state from the perspective of employment. From the Census of India figures, the share of cultivators and agricultural labours among the total workers is calculated. Half of the state's workers still engaged in the agriculture. In Odisha, more than half of the farmer is a small and marginal farmer. They are interested in either leasing-in some land from the landlord for cultivation for their family requirement basis. So the operational holding of average land in Odisha farmer around one acre. But it varies across the social groups: the share of scheduled castes in operational holdings of Odisha 11.65 per cent area in compared to the other caste¹⁴.

¹⁴ As per as the Agriculture Census 2011-12, Percentage of operational land holding across the social groups of India and Odisha as like only 8.60 per cent are SCs, 11.42 per cent are STs and for OTH it is 79.02 per cent. For

Between 1981 to 2011 the shares of cultivators and agricultural labourers out of total workers of Odisha and India are presented in **Fig. 2.7**. In 1981, around 40 per cent of workers were cultivator, it falls to 38.7 per cent in 1991. But after 1991, the share of cultivator drastically fell to 24.1 per cent which indicates the farmer of state quit the cultivator and engaged other non-farming activities. In 1981 and 1991 more or less equal to 24 per cent agricultural labour was found in the states but in 2001 it falls to 14.7 per cent. In 2011, the share of agricultural labour increased the alarming rate and it is around 39 per cent of the state workers. More than 60 per cent of workers is cultivator and agricultural labour of the states in 2011. But in 2001, both summation of cultivator and agricultural labour was less than 40 per cent of the state.



Sources: Odisha Economic Survey 2015-16, pg. Annexe2/19. Note: Cultivator and Agricultural Labour calculate from total main workers in total (both rural and urban).

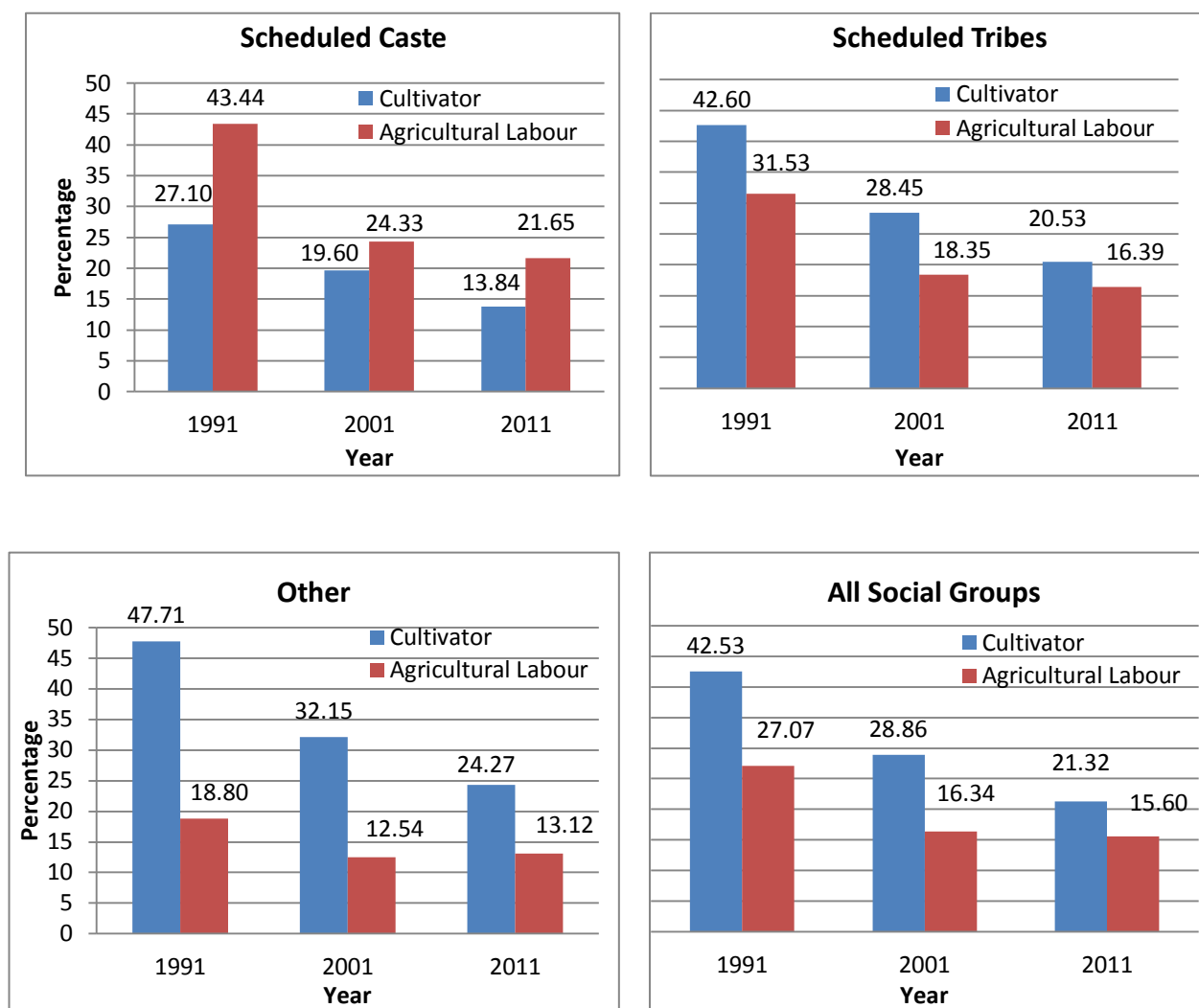
Fig. 2.7, indicates that concentration of cultivator and agricultural labour out of the total worker of the state from last four decades. In Odisha, three fourth of population engaged directly or indirectly with agriculture. The casual labour both agriculture and non-agriculture of the states rise in the recent period. The lack of employment in the formal sector around 85 per cent of worker engaged in the informal sector. In rural areas, the main occupation of a worker is as a cultivator or casual labour. So the casual labour in agriculture of the state increased from 14.7 per cent to 38.4 per cent from 2001 to 2011 census periods.

The share of cultivator and agriculture labour of rural Odisha among the social groups from 1991, 2001 and 2011 census has been put in **Fig. 2.8**. This is the share of cultivator and

Odisha the share of land operational holding across social groups is 11.65 per cent by SCs, 33.27 per cent are STs and 55.06 per cent are OTH (More Details See Agriculture Census, 2011-12 Page. 70.)

agriculture labour from total workers of rural Odisha. In 1991, out of total workers 42.53 per cent of workers were work as cultivator and 27.07 per cent were agricultural labour. So the total agricultural workers¹⁵ of rural Odisha out of total workers 69.60 per cent. But it is subsequently fall to 45.2 per cent in 1991 and 36.92 per cent in 2011. The proportion of cultivator and agriculture labour in 2011 census is 21.32 and 15.60 per cent respectively.

Fig. 2.8: Percentage of Cultivator and Agriculture Labour out of Total workers in Rural Odisha in 1991, 2001 and 2011 census



Sources: Primary Census Abstract, 1991, 2001 and 2011

In the social groups of scheduled caste cultivator were less than agriculture labour because most of the scheduled caste workers are landless and marginal. So they are work as agriculture labour on the other land. In 1991, the proportion of cultivator 27.10 per cent and

¹⁵Agriculture workers is the summation of cultivator and agriculture labour from total workers.

agriculture labour 43.44 per cent. In 2001 census the scheduled caste share of cultivator and agriculture labour of rural Odisha fall to 19.60 and 24.33 per cent respectively. Again the share of cultivator and agriculture labour of scheduled caste fall to 13.84 per cent cultivator and 21.65 per cent to agriculture labour in 2011 census. Over the three period of time agriculture workers proportion out of total workers among the scheduled caste decrease from 70.54 per cent in 1991 to 43.93 per cent in 2001 and 35.49 per cent in 2011. The scheduled tribes cases the share of agriculture workers also fall from 74.13 per cent in 1991 to 46.8 per cent in 2001 and further fall to 36.92 per cent. The share of cultivator fall from 42.60 per cent to 20.53 per cent and agriculture labour fall from 31.53 per cent to 16.39 per cent in the period of 1991 census to 2011 census. In the caste of Other (including OBCs) the proportion of agriculture workers fall from 66.51 per cent in 1991 to 46.69 per cent in 2001 and again it is fall to 37.39 per cent in 2011. The percentage of cultivator and agriculture labour out of total workers 47.71 per cent and 18.80 per cent was in 1991 census but in 2001 the proportionate share fall to 32.15 per cent and 12.54 per cent. In 2011 census, only 24.27 per cent are cultivator and 13.12 per cent are agriculture labour out of total workers in rural Odisha. In overall study of the share of cultivator in rural Odisha out of total workers more in scheduled tribes and others as compared to agriculture labour. However, in the scheduled caste share of cultivator much more than the cultivator in rural Odisha. That is indicate that scheduled caste workers work as casual labour than the other caste or in compared to scheduled tribes.

On the definition basis if we see cultivator of Odisha is operate very small amount of land owned. Prof Bhalla (2011) explains the condition¹⁶ of a farmer of India's and their participation in the season basis of different states. The awareness of the different schemes and use of modern technology and fertiliser raise the farm income of the poor farmer of the states as well as of the country¹⁷.

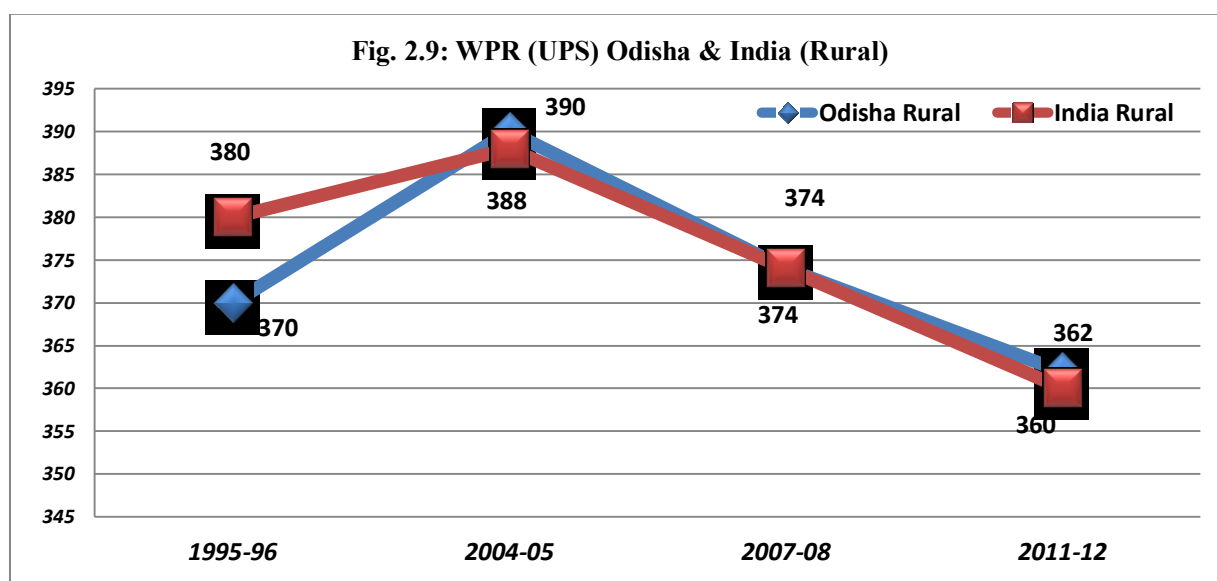
¹⁶Prof. G.S. Bhalla (2011) has explained in detail about the problems facing by Indian farmer in backward as well as agricultural developed states. He explain details in his book "*Condition of Indian Peasantry*" (2011). He has argued that the majority of farmer farming in the traditional; basis and explain only 18 per cent of farmer known about the bio fertiliser uses and only 29 per cent of farmer aware about MSP.

¹⁷In Odisha, according to NSS 70th round, only 12 per cent of farmer know about the MSP, which indicate the save of farmer from any problem related to selling the product. So we can say that the cultivator is slowly diversify their occupation from agriculture to other occupation. They may prefer to work on other farm but they do not agree to farm due to risky, uncertainty and debt burden.

2.4 Employment Situation in Odisha: Insights from the NSSO Data:

The worker population ratio of the states and nation depicted in the **Fig. 2.9**. The National Sample Survey has a more detailed classification of employment by (a) usual status, (b) current weekly status and (c) current daily status. A person is employed by usual status if he/she was regularly employed in a regular principal status or subsidiary-status job.

The sum of the two defines the usual status. There is also a separate subcategory: usual principal status. By the current weekly status, a person is counted as employed if he/she was employed a week prior to the date of the survey. In measures (a) and (b), employment is measured by head counts. In measuring employment by current daily status, a day is divided into two units (i.e., morning and afternoon), so that a whole week has fourteen units. A person is asked about the number of units in which he or she was employed over the week preceding the date of survey. In category (c), employment is measured in person-days, not persons. This is useful for measuring employment or unemployment among casual workers. At any given point in time, the labour force is the sum of those working (i.e., engaged in economic activity) and those who are available for or seeking work.



Sources: Computed from NSSO 68th, 66th, 61th and 52nd Round.

The Worker Participation Ratio (WPR) is defined as the number of employed persons (or person-days in case of current daily status) per 1,000 that are in the workforce (or per 1,000 workforce days). So there are three measures of WPR, depending on which way employment is measured. The unemployment rate is defined as the ratio of persons (or person-hours) not employed to the workforce (or workforce hours). Accordingly, there are also three measures of the unemployment rate like employment measurement. In 2004-05, for both rural Odisha

and India WPR rate (per 1,000 workforce days) was around same but after that period WPR fall continuously in the substantial period of the rural areas. In 2011-12, it falls to 360 in rural India and 362 for rural Odisha, which is depicted in **Fig. 2.9**.

2.4.1 Labour Force Participation Rate (LFPR):

The percentage of labour force participation rate based on usual status from total workers both rural and urban of the states and country explain in below **Table 2.7**. In the rural areas of Odisha, women participation rate fall in the 66th round but after then it is increased marginally in 2011-12. In 2011-12, the change in the proportion of labour force participation by the women around same in the state and national level. But if we compared to 2004-05, it is reduced in both the state and national level.

Table 2.7 Sex-wise Labour force participation rate (LFPR) in Rural area of Odisha and India

State/ Country	Gender	50th Round (1993-94)	55th Round (1999-00)	61st Round (2004-05)	66th Round (2009-10)	68th Round (2011-12)
Odisha	Male	57.7	56.4	60.4	59.6	60.6
	Female	31.9	30.2	35.1	24.9	25.1
	Total (M+F)	44.9	43.2	47.6	42.3	42.7
India	Male	56.1	54	55.5	55.6	55.3
	Female	33	30.2	33.3	26.5	25.3
	Total (M+F)	44.9	42.3	44.6	41.4	40.6

Sources: Calculate from NSSO 68th, 66th, 64th, 61st, 55th and 50th Rounds.

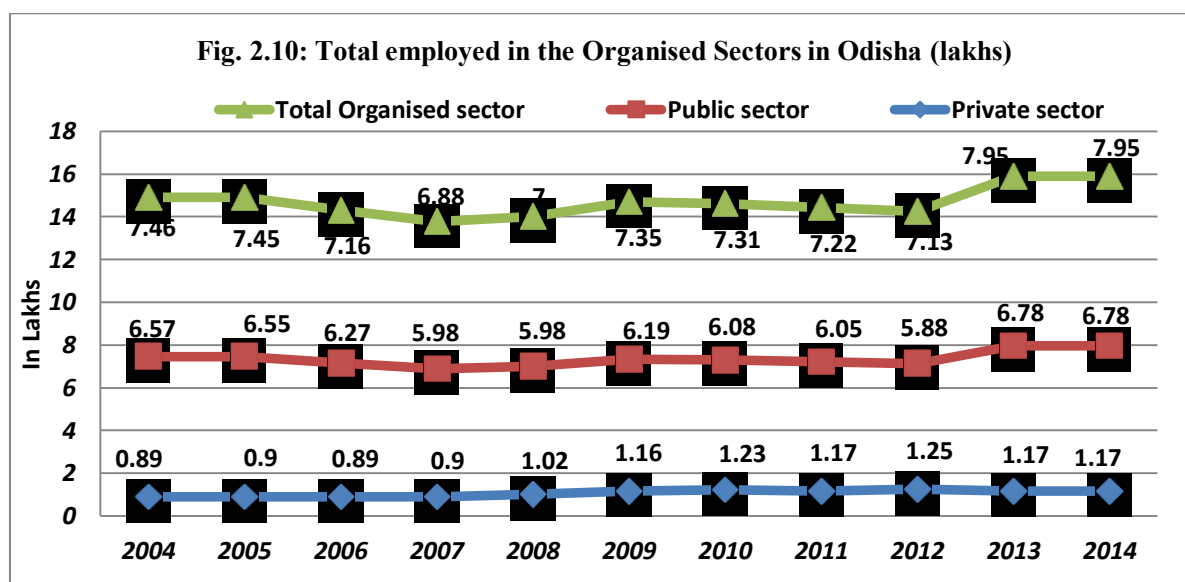
The proportion of LFPR for both Odisha, fall in the initial period but after that, it is increased in 2004-05 period which was highest in compared to the all NSS round till date. But after it again falls to 42.3 per cent in 2007-08 and marginally rise in 2011-12. But in India, LFPR fall continuously fall from 2004-05 to 2007-08. Across the gender, female LFPR in Odisha and India fall in the last three period of NSS employment and unemployment survey. The LFPR will be raised by the use of proper utilisation of resources and manpower simultaneously. The states will be progress when the working age population are working in skilled and trained way. The backward states of India like in Odisha, Jharkhand, Chhattisgarh and Madhya Pradesh has working-age population is more than the other states but the participants less in compared to developed states.

2.4.2 Employed in organised and unorganised sector:

The government of Odisha does not maintain the unorganised sector employment status. As per as the labour and employment department of Odisha Government on 31st December

2014, the total job applicant was 10.86 lakhs. Among that more than 95 per cent (10.37 lakhs) of the applicant was job seekers. Among the job seekers 60 per cent (6.22 lakhs) were matriculated and undergraduate, 30 per cent (3.11 lakhs) are graduate and postgraduates (general), only one per cent are technical graduate and postgraduates, 9 per cent are other diploma holders.

The trend of the curve of total employed in organised sectors and share to the public and private sector depicted in **Fig. 2.10**. It shows calendar year-wise annual data on employment in the organised sectors of the states. The total employment in organised sectors has increased slightly over the period 2012 to 2013. While the share of public sector employment has been steadily increasing to around seven lakhs, but after 2012 it is stagnant for the period of 2013 and 2014. But this sector still absorbs less in compared to the total labour force of the states.



Sources: Odisha Economic Survey 2015-16, pg. Annexe2/22. Note: the Total organised sector is the summation of Public and Private sectors.

These figures are based on total workers of the states, which also provides the break-up of men and women employed in each sector. In both sectors together, the share of women in total employment has been steadily increasing except in the year 2008 and 2013, when it was 16 per cent and 14.03 per cent respectively. the share of private sector employment in organised sector total employment in states is very less i.e., 1.17 lakhs for both 2013 and 2014 period of time.

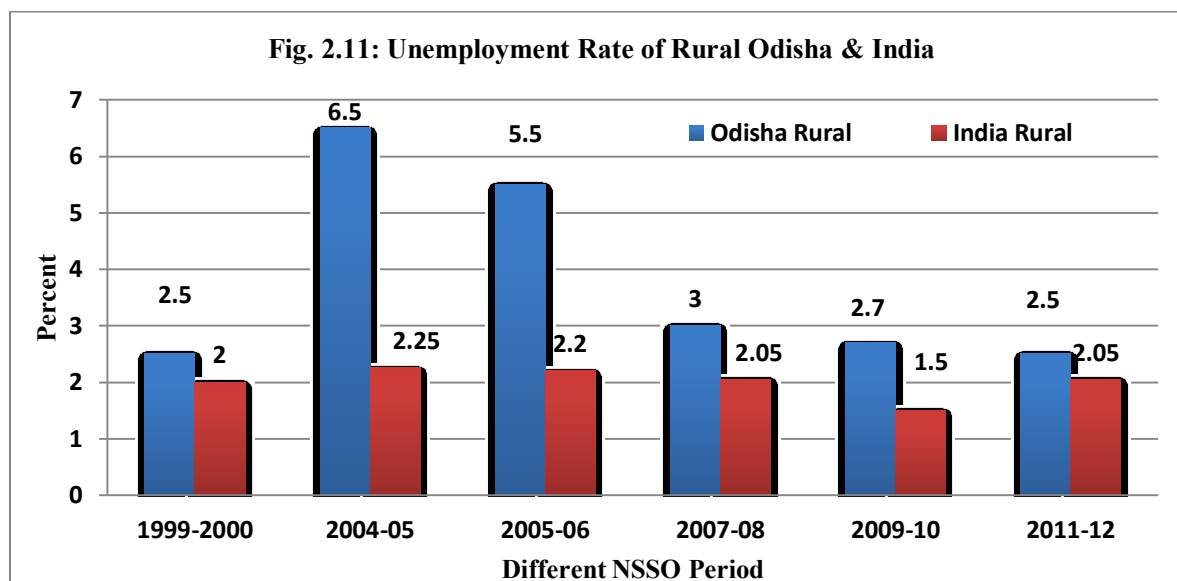
The above figure depicted that the state employment in organised is little more or less up to 2012. But after that, the employment in this sector rise to around 8 lakhs. The eight lakhs of people are work or engaged in the organised sector. Which is very less to other

states. The figure indicates the state worker engaged in the informal labour market, where the worker does not find all type benefit from the employers. The state will be progress when the majority of people work in the formal labour market and their skill will be developed according to their remuneration and other benefits provided by the company. The states industrial development belongs to some specific region of the states, which do not provide the employment of other parts of the states. The state worker productivity is too less due to the educational as well as skill power. The state government tries create jobs through industrialisation and skill development. But the growth rate of the worker is much higher than the employment generation.

Around 85 per cent of workers engaged in unorganised sector of the states which indicates the state backwardness and inequality. Indian economy is characteristic of the existence of informal or unorganised sector employment. In India, as per as NSS, 66th 2009-10 period, total employment in the country was of 46.5 crores comprising around 2.8 crores in the organised and the remaining 43.7 crore workers in the unorganised sector. Out of these workers who are engaged in the unorganised sector, there are 24.6 crore workers employed in the agricultural sector and only 4.4 crores in construction work and remaining in manufacturing and service sector. The Ministry of Labour, Government of India, has been categorized the unorganized labour force under *four* broad groups in terms of their *occupation, nature of employment, especially distressed categories and service categories*.

2.4.3 Unemployment Rate in rural Odisha: The unemployment is measured by the two way: *voluntary unemployment* and *involuntary unemployment*. In an economy, voluntary unemployment varies according to the structural problem, frictional problem and seasonal nature of work. Which may change season to season and progress of the tertiary sector. The problem of the economy is the involuntary unemployment, that is arises due to lack of utilisation of manpower and resources. That type unemployment is a serious problem many developing countries like India. The general unemployment rate is the percentage of workers not able to attached or engaged in any activity due to lack of employment opportunity. It is calculated the total labour force or workforce in the age groups of 18 to 59 years of age. As per as the NSS definition labour force measure through the activity status which is categories in the *three* groups i.e., *working, seeking or available for work* and *out of labour force*. Both working (engaged in any economic activity) and seeking available for work (unemployed) constitutes the labour force or workforce of the country. Estimating employment or

unemployment is not the focus of all rounds of NSS except some specific round of employment and unemployment survey of the country. In **Fig. 2.11**, the detail of unemployment of rural Odisha and India has been explained.



Sources: Computed from NSSO 68th, 66th, 61th and 52nd Round.

In 2004-05, rural Odisha unemployment was 6.5 per cent which was highest in the last two decades period. It is their times more than the national per cent. But after that, it falls to 5.5 per cent in 2005-06. The state's unemployment rate much higher than the national level in the two periods of the figures. It is heartening to note that WPR by usual principal status in rural areas has improved from the 55th round to the 68th rounds. In the case of rural areas, in particular, Odisha exceeds the national average in the 68th round while in case of urban WPR, Odisha exceeds the national average for the first time. However, irrespective of the categories of workers, (a) the State's unemployment rate has always remained higher than the national rate, (b) urban unemployment rate is higher than rural unemployment rate, and (c) in the 61st and 62nd rounds, the unemployment rate shot up and the difference between that in the State and the country widened. The position, however, improved in subsequent rounds.

2.5 Agrarian Structure of Odisha:

The Odisha economy is no more become an agrarian economy in the current period due to the average share of state GDP fall to less than 20 per cent in the 2015-16 from the 60 per cent in 1960s. But more than 60 per cent of worker depend on the agricultural sector for their livelihood. The economy is much affected due to so many natural calamities like flood, cyclones and drought in various part of the states. The agriculture of the state farmer although

become a prime source of income but which is only fulfil the cost of cultivation rather than earning profit from the agriculture. The state people are attached to agriculture due to lack of opportunity of other non-agricultural work. The majority of the farmer are landless agricultural labour and small, who are depending on the cultivation of leasing-in land from the rich landowner.

Agrarian structure means the land tenure relations and the broad change in the distribution of land in the economy. In India, unequal land distribution and exploitative land tenancy have been identified as among the factors of low productivity which is also reflected the underdeveloped state. The landholding structure like India, in Odisha colonial routes, has been diverse the land ownership in the state and it varies across the districts. Over the years there have been many changes in the landholding structure and an attempt has been made here to identify the main changes in land ownership and operation.

2.5.1 Ownership Holding of Land:

Two important aspects of the agrarian structure of the country are the ownership holding and the operational holding. Particularly land owned, land lease out, land lease in, types and term of leases are the main elements of landholding. The definition of land ownership provided by the NSS is: “A plot of land is considered to be owned by household if permanent heritable possession, with or without the right of transfer the title, is vested in a member or member of the households”. Land held by the owner like possession under long-term lease or the assignment is also considered as land ownership.

Table 2.8 Total Land Owned (and its %) across social groups in Odisha and India in 2011-12

Name	Sector	The absolute figure of land owned (acre)	Percentage	Percentage of Land owned across social groups			
				STs	SCs	OBCs	OTH
Odisha	Rural	5017.94	89.92	22.09	10.8	41.44	25.67
	Urban	568.52	10.17	14.78	14.64	27.53	43.05
	Total	5586.46	100	21.35	11.19	40.02	27.44
India	Rural	125369.5	87.07	20.11	7.09	39.25	33.54
	Urban	18608.55	12.92	16.17	5.21	35.66	42.95
	Total	143978.1	100	19.6	6.85	38.79	34.76

Sources: Unit level data from NSSO, 68th Level-2, 2011-12; Note: Percentage of land owned summation across the social groups is hundreds.

The estimated area of land owned of Odisha is 5586.46 acre, out of this around 90 per cent owned by in rural household and 10 per cent owned by the urban household. The national figure is 143978.1 acre of total land owned. The average land ownerby the state is 1.56 acre

when the national figure is 1.64 acre per household. Across the social groups of land ownership in rural, urban and total details explained in **Table 2.8**.

In Odisha, another backward caste (OBCs) occupies the highest share of land ownership in rural as well as in total areas across the social groups. Scheduled caste access only 10.8 per cent and scheduled tribe 22.09 per cent out of total land owned by the states in rural areas. In urban areas, Another caste occupies the highest share of land owned i.e., 43.05 per cent. In overall, the sector of land ownership of the states indicates around 40 per cent concentrated in the hand of OBCs and 27.44, 21.35 and 11.19 per cent by Others, scheduled tribes and scheduled caste respectively. The lowest percentage of land owned by scheduled caste in the state, which is around 11 per cent out of hundreds. The national figure also depicted in **Table 2.8**, indicate that only 7.09 per cent of land owned by scheduled caste in rural areas and it become 5.21 and 6.85 per cent in urban and total areas respectively. More than 73 per cent of rural land is owned by the other backward caste and other. In urban areas, only 5.21 per cent of land stay in the hand of scheduled caste which is lowest among the social groups of the country. Around 80 per cent of urban land owned by other backward caste and another caste which are treated as higher caste. Although scheduled tribes share is less in comparison to higher caste but it is far better than a scheduled caste of the county

2.5.2 Operational Holding of Land:

An operational holding is defined by the NSSO as a “*Techno-economic unit used wholly or partly for agricultural production and operated by the one person alone or with the assistance of others, without regarding the title, size, or location.*” As distinct from a *household ownership holding*, which is restricted to the area of land owned by a household, operational holding encompasses all land owned, leased in or otherwise possessed -under the physical possession of the techno-economic unit. The area under operational holdings is called *land possessed* or *operated area*. Around 92 per cent of total land possessed in Odisha in rural areas out of 5247.83 acres of state total land possessed. The national figure slightly lower than the stet but it has also giant per cent of total land operational holding by rural areas shown in **Table 2.9**. Like land ownership, a land possessed by other backward caste cultivate large section of total land of the rural and total areas of the states. Scheduled caste only 12.93 per cent of land possessed in the state which is lowest among the social groups. The national figure on the operational holding of land by scheduled caste is very low in comparison to another caste of the country. Only 7.42 per cent of land possessed in rural

areas by scheduled caste and it is 7.24 per cent in total. Whereas both OBC and Other groups operated more than three fourth of total operated land of the country in rural, urban and total.

Table 2.9 Total Land possessed and its percentage across social groups in Odisha and India in 2011-12

Name	Sector	The absolute figure of land possessed (acres)	Percentage	Percentage of Land possessed across social groups			
				STs	SCs	OBCs	OTH
Odisha	Rural	4818.6	91.82	23.04	12.81	40.75	23.4
	Urban	429.23	8.18	16.05	14.32	31.63	38.0
	Total	5247.83	100	22.47	12.93	40.0	24.6
India	Rural	121465.7	88.08	19.24	7.42	39.81	33.53
	Urban	16441.48	11.92	16.77	5.92	37.85	39.46
	Total	137907.2	100	18.95	7.24	39.57	34.24

Sources: Unit level data from NSSO, Level-2, 68th, 2011-12; Note: Percentage of land possessed summation across the social groups is hundreds

2.5.3 Average area of land ownership of farmer household:

The average area of land ownership per household in Odisha 1.56 acre and it is for rural 1.76 and 0.77 acres for urban areas. In the social group's wise scheduled caste average land owned less than one acre per household and all other social groups it is more than 1.5 acre. In India, only 0.24 acre of land owned per household in the urban areas and for rural it is 0.92 and 0.72 acre in total. Without social groups in all India average areas of land ownership in rural, urban and total much higher than the states rural, urban and total average depicted in **Table 2.10**. It is calculated including the landless household of the states and country. The average land ownership both state and country fall in comparison to the earlier period.

Table 2.10 Social groups wise Average area of land ownership of Odisha and India in 2011-12

Name of State	Sectors	The average area of land ownership (acres)				
		ST	SC	OBC	OTH	ALL
Odisha	Rural	1.74	1.01	1.93	2.19	1.76
	Urban	1.11	0.55	0.69	0.87	0.77
	Total	1.67	0.91	1.71	1.77	1.56
India	Rural	0.78	0.92	2.19	2.78	2.21
	Urban	1.12	0.24	0.56	0.64	0.6
	Total	2.33	0.72	1.63	1.81	1.64

Sources: Unit level data from NSSO, Level-2, 68th, 2011-12.

Like the land ownership of household land possessed is explained in **Table 2.11**. Which is indicate that average areas of land operation for the states and country slightly higher than the average land ownership. In rural Odisha, scheduled caste operated 1.11 acre of land for farming which is higher than the national average land possessed in rural, urban and total. In

total average land possessed, of Odisha and India are 1.32 and 1.41 acre respectively. Which shows that the state average area of land possessed slightly less than the national average. Like in the social groups of scheduled caste, state-operated average land more than the national average i.e., 0.9 acres for Odisha and 0.66 acres for India. The scheduled tribes land operation holding much higher than the other social groups in India as well as states. The average land operational holding of Odisha 1.55 acre and it is for a national average 2.12 acre per household. In Odisha, an average land possessed by OBCs more than the Other groups but in India it is just reverse i.e., Other operated land more than OBCs (1.49 acre by Other and 1.42 acre by OBCs in India and for Odisha 1.27 acre and 1.48 in respective caste).

Table 2.11 Social groups wise Average area of land possessed or operational holding of Odisha and India in 2011-12

Name of State	Sectors	The average area of land possessed (acres)				
		ST	SC	OBC	OTH	ALL
Odisha	Rural	1.7	1.11	1.77	1.82	1.64
	Urban	0.64	0.31	0.43	0.41	0.42
	Total	1.55	0.9	1.48	1.27	1.32
India	Rural	2.55	0.91	2.1	2.6	2.1
	Urban	0.87	0.18	0.4	0.4	0.41
	Total	2.12	0.66	1.42	1.49	1.41

Sources: Unit level data from NSSO, Level-2, 68th, 2011-12.

The average areas of land become higher than the above figure due to it is including the landless household who have not owned any land in the study period. The landless household although not owned land in the period but operated some land through the leasing-in from the landlord and rich tenants. The landless farmer is also engaged in the work of as casual non-agricultural labour. The landless labour of the different states increases due to the fragmentation of land within the family member. The process of land distribution among the landless through the land reforms not proper work in all the region of the country. Except for West Bengal and Tamil Nadu, no other state land reform was not able to the proper distribution of land among the landless and marginal farmers.

2.5.4 Landlessness in Rural Odisha:

The extent of landlessness has increased for all categories of households all over all the states of the country. But landless among the scheduled caste much higher than the other social groups both in Odisha and India, although landless in Odisha less than in India across the size class in total. Around 32 per cent and 21 per cent of landless across the size class of land

owned in rural areas of India and Odisha respectively. More than 90 per cent of land is come under the less than one-acre of land size class in both country and Odisha in scheduled caste category, which is shown in **Table 2.12**. It is not only for the scheduled caste but also it exists in the other social groups where a large section of land has coming under the marginal and small category across the size class. The landless household is operate the land in the way of leasing-in and the otherwise process. The landless household comes from the marginal household groups if the land is fragmented on the family division causes and marginal land is divided some tiny plot of this household, where some family member of the household sell the small plot of land instead of cultivation.

Table 2.12 Social groups wise Percentage of Landownership holding by across the category of size class of land in Rural areas of 2011-12

Odisha and India	Social Groups	Landless (0-0.010)	Marginal (0.011-1.000)	Small (1.001-2.000)	Semi medium (2.001-4.000)	Medium (4.001-8.000)	Large (8.001+)	Total
ODISHA	ST	6.6	64.5	14.5	9.2	3.9	1.3	100
	SC	21.2	66.2	3.3	4.6	4	0.7	100
	OBC	14.6	61.5	10.6	10.6	2.7	0	100
	OTH	8.2	66.7	7.5	12.9	3.2	1.4	100
	ALL	12.7	64.8	8.3	10.1	3.3	0.8	100
INDIA	ST	15.6	58.9	7.6	9.3	6	2.6	100
	SC	32.5	61.4	2.7	2.1	0.9	0.4	100
	OBC	22.5	66.2	4	3.6	2.3	1.5	100
	OTH	22.1	67.1	3.4	3.2	2.4	1.9	100
	ALL	23	65.3	3.9	3.7	2.5	1.6	100

Sources: Unit level data from NSSO, Level-2, 68th, 2011-12. Note: Unit of land measure in acres. It is in only Rural,

2.6 Characteristics of Rural Labour Markets: Insights from Field Surveys:

Despite the changes in the composition of the NSDP, the rural economy of Odisha remains predominantly agrarian. There are important regional differences within Odisha. The rural economies of the relatively well developed coastal Odisha districts are characterised by a higher presence of agricultural labourers. This is also the condition in the irrigated belts in Sambalpur-Bargarh districts. While elsewhere, particularly in the tribal-dominated belts of Southern Odisha, agricultural work is still done through family labour. In the past few decades the picture has seen a drastic change. However, the coexistence of family labour and wage labour in agriculture are the predominant feature of the agrarian scenario in Odisha.

For a long time, semi-feudal exploitation of labour has been one of the key features of the agrarian relations in Odisha (Rao, 1995). Labour relations were characterised by extra-economic coercion and exploitation of the mass of small producers and landless labourers, creating conditions for mass poverty and hunger (Purohit et al, 1985). Interlinked agrarian markets, with exploitative informal credit relations have also been reported by many studies (Das and Bharadwaj 1975; Sarap, 1991; Mishra 2008). These interlocked factor markets have significant implications for the rural labour markets in Odisha. First of all, landless labourers remain dependent upon their employers for credit during the lean season and hence cannot bargain for wages in the peak agricultural season. Secondly, some of them, also turn into tenant farmers, where they remain attached to the landlords, who allow them to cultivate tiny pieces of lands in exchange for commitment to supply labour during the peak period. Such labourers who have taken tied loans typically get lower average wages than those who are not part of such contracts (Mishra 2008; 2011). The incidence of such interlocked contracts involving labour markets is declining. Nath (1990) on the basis of a field survey has reported that the labour relations in irrigated and non-irrigated belts are not much different. But Sarap (1991b) reports significant differences between the rural labour markets in the irrigated and rain fed areas. On the varieties of contractual arrangement on the payment of wages in rural labour markets of Odisha diverse on the basis of type of land like irrigated land or dry land. However in the payment of casual labour in irrigated region less differentiate in term of gender although there are limited scale of discriminate persistence in this region. The contact of labour enforcement of the wet region linked with the social relationship as well as caste link and the wage rate not change over the longer period of time due to most of the casual workers advanced taking their wages from the rich or land owner. That does not means all casual labour attached with the work in particular employers. So in the rural areas casual agriculture labour market segmented with the caste, gender and region (like local or semi town) and movement of labour (like migration of labour). Lack of collecting bargaining and diversification of labour households on both skilled as well as social factor (like caste and gender) wages of casual labour not much change over the period of time, although the minimum wages of labour households prescribed by the state government (Sarap, 1991).

The two important changes in the rural labour markets in Odisha in the recent period are: (i) growth of the rural non-farm employment (Samal, 2000) and (ii) increasing dependence on seasonal labour migration (Mishra, 2016). The tenurial condition of land markets exploited the labour through the leasing-in land. The prevalence of exploitation

operated jointly with land and labour markets. The labour markets tie-up with the land market, which is help to the easily exploit the rural poor. The practice of labour exploitation by the landlord or rich farmer in rural Odisha done by the tenancy condition. The poor labour families leasing-in some land from the landlord for support to families and in return they provide the labour power to landlord for cultivation. They are work under the pressure of landlord, and that type of work was done by the rich farmers on a long period of time (Bharadwaj and Das, 1994:160). In the second half of post reform period Odisha economy is progress as per as the socio economic indicator like per capita income, life expectancy of birth, infant mortality rate, distribution of consumption pattern etc. The changing economic condition of rural poor improve the state progress and reduce the chronic provide. However, regional variation of agriculture modernisation like cultivation of commercial crops or better irrigation facility, contract farming etc. not progress in all section of the state. Economic condition of the poor some extent progress over the last decades (Samantaraya, Sahoo, Mallick and Bhuyan, 2014). Land reform are no longer on the agenda of distribution of land among the poor or landless farmers in the rural areas and agriculture of the state still backward as compared to other state. Inequality of land distribution among the social groups in one hand and on the other hand illegally alienated tribal land on the name of progress of the region, people of rural areas in some region migrate to neighbour state. The dominance of caste based politics as well as economic operation of state, some extend increase the inequality among the region as well as social groups (Mohanty, 2014).

2.7 Farm and Non-Farm Employment:

Diversification of the sources of employment is considered to be a key aspect of the development process in a developing economy (Ellis, 1999, 2004). In this context, much emphasis has been placed in the growth of the non-farm economy, particularly in the Rural Non-Farm Employment (RNFE) (Lanjouw and Lanjouw 2001; Lanjouw and Shariff, 2004; Panda, 2006). In the specific context of Odisha, growth of rural non-farm employment has been seen partly as an outcome of distress diversification (Samal 2000)

As per as the census 2011, in rural Odisha, out of total workers 20.18 per cent of workers employed in non-farm sector and on the social groups wise 20.93 per cent of scheduled caste, 10.58 per cent of scheduled tribes and 25.46 per cent of others workers depend on non-farm sector (Census, 2011). As per as the labour force in usual status (PS+SS), about 61 per cent are male and 15 per cent are female in rural areas and in the urban areas 56 per cent males

and 8 per cent females. In 2011-12 (68th round of NSSO), Odisha LFPR in usual status (PS+SS), decreased by one per cent and three per cent in case of rural and urban males in compared to 2009-10 (66th round). The proportion of casual labour among the workers in rural Odisha in usual status (PS+SS) for males was 32 per cent and 47 per cent females. In the urban areas it is less like 21 per cent males and 42 per cent females in 2011-12 (NSSO, 2011-12).

In coastal Odisha, the farmer income emerged from only the crop cultivation only in one season as in Kharif season. It is observed that the non-farm income of the farmer will generalise the major fulfilment of the family requirement. The non-farm income emerged as the major income of the household in coastal districts farmer household (Samal; Barah and Pandey, 2006)¹⁸. In general non-farm income was higher than farm income. It also varies according to the size of land owned. In the small farmer cases, the non-farm income is three times higher than the on farm income and in large farmer cases, it is two times higher than farm income. So, the area of land owned may be one of the major factors of the income sources of farmer household. The pattern of the household income varies from districts to districts due to the occupational change of the farmer in rural areas.

Agriculture becomes the main sources of income of rural households during pre-independence period. But the level of income from farm income falls according to the change in population, land-man ratio and macroeconomic factors. So the income from farm contrast with the change in the livelihood of farmer household. But so many researchers argued that the rural areas will be developed by increase farmer income through the price of crops, agricultural incentives. Because in rural areas change the occupation not depend on the providing job, but it is important to need for the skilled labour availability. Although the household treated as a farmer household the income sources of the family came from the non-farm sources. The non-farm employment and income will improve the standard of living of the rural people (Chadha, 1993).

The distribution of employment in a specific period of time of the household also depends on the creation of work in this period. In the coastal belt of Odisha people, occupational structure change slowly farm to non-farm. That is change the standard of living of the

¹⁸The study was based on 193 farmer and analysis the income of the farmer from both farm and non-farm, and calculate the percentage of income on farm and non-farm. The farm income again concentrated with the crops income mainly focus of paddy. The income of the farmer household from non-farm emerged around 71 percentage.

household. So the non-farm employment of the rural workforce will become as the push and pull factor of development¹⁹(Thomas, 1995; Vaidyanathan, 1986). But it varies according to the labour force composition. It is found that the nature and composition of labour force employment differ from region to region and states to states (Elumalai and Sharma, 2003).

2.8 Summary of the Chapter:

An overview of the employment situation and labour market characteristics in Odisha has been presented in this chapter. The specific aspects of caste-based discrimination explored in the subsequent chapters need to be analysed in this broader context of the labour market situation in Odisha. The structure of Odisha's rural labour market has been influenced by the demographic changes and the diversification of the economy itself. In most of the districts of Odisha, rural workers are dependent on agriculture as the main occupation. A large section of farm-dependent workers work as casual labour in the villages and in the nearby villages. In the western part and northern parts of the state workers are migrated to the neighbouring states like to Jharkhand, Chhattisgarh and Andhra Pradesh. These workers are employed in the informal sector and work like as bonded labour²⁰ on the basis of living in the subsistence level of life. There is no substitute occupation other than seasonal migration. The characteristic of the rural labour of the states is agro-based, which is more focused on the farming and the livelihood of workers belong to access to job opportunity. The regional basis coastal area although more developed as relative to another region, but the primary occupation of this region as like as another part of the areas of the state. The rural areas people concentrated on the farm income rather than non-farm income. But it varies according to the income of the farmer from farming on states to states. In coastal belt of Odisha, a large number of farmer unemployed after the cultivation in Kharif season.

The Odisha labour market different as compared to other part of the country and diverse nature of occupation in the different part of the state. So the labour market basically rural areas unequal on the participation of the work force out of total population of the particular

¹⁹ Pull factor on the basis of people of rural areas change the location from rural to urban or the job availability areas. So the youth of rural labour force migrant to urban areas where they find work and support to their family. On the basis of increase non-farm employment uplift the family from poverty, and save from different natural calamities or farming losses. That will help to the family from distress of cultivation loss. Which will be stop the farmer suicide of the rural areas.

²⁰The worker are goes through the broker (*Dalal*) on the seasonal basis. But after the given tenure they are force to work in the factories or Brick industries for a long period of time. The state migration labour are increase more and more as compare to other states. The two worker how lost their hand by the employer of Andhra Pradesh brick industries owner was never forgot from the mind of migrant worker. Even after that incident people of states goes for work to other states.

region. The present study more focus on the coastal region of Odisha where large section of population are non-workers. The state average household size (4.5) less than the national (4.9) and in the social groups wise state scheduled caste and scheduled tribe household size 4.2 and 4.3 respectively in compared to national average 4.8 for both scheduled caste and scheduled tribes. In Odisha around 57 per cent of population are non workers and only 43 per cent are workers who are actively working in last one year. Although the state growth rate of workers increase from 18.5 per cent to 19.99 per cent from 1991 census to 2001 and 2001 census to 2011 census time period. In 2001 to 2011 census the work participation rate of scheduled caste increase on the rate of 21.81 per cent, in compared to scheduled tribe 18.54, for other 20.25 per cent. This is indicate that the work participation of the state in scheduled caste grow faster than the other social groups in rural Odisha. Although the state rural areas worker increases but most of the workers work less than six months. Because most of the workers work or depend on agriculture, so after the cultivation tenure of six months most of them staying home and work as self employed in home work. The state main workers decreases from 87.34 per cent in 1991 to 67.17 in 2001 and in 2011 census it is reached to around 61 per cent. The state rural areas scheduled tribe main worker less than 48 per cent in compared to scheduled caste and other 56.42 and 62.85 per cent respectively. As per as the census 1981 to 2001 census percentage of cultivator higher than agriculture labour but after 2001, that means in census 2011 share of cultivator less than agriculture labour. Which indicate the state agriculture labour in rural Odisha increase from 14.7 per cent in 2001 census to 38.4 per cent in 2011 census. One important thing is that among the social groups scheduled caste share of agriculture labour higher than cultivator out of total workers, where as in the scheduled tribes and other caste cultivator share more than agriculture labour. So in the Odisha rural labour markets scheduled caste proportion of workers work in agriculture much more than the other social groups. The labour force participation rate as per as NSSO, only 42.7 per cent in rural areas population are actively work as counted from usual status (PS+SS). Among them the share of female participation rate 25.1 per cent. In rural Odisha LFPR of male and total (i.e., both males and females) higher than the national level and in the females it is more or less equal in both Odisha and India.

Odisha economy structure as an agrarian on the basis of employment, however in composition of GDP less than 20 per cent of come from agriculture sector. Due to lack of opportunity work in non-agriculture, most of the workers cultivate their tiny plot of land or work as casual agriculture labour. So the small farmer and landless farmer depend on the

leasing-in land. Agrarian structure means the land tenure relations and the broad change in the distribution of land in the economy. In India, unequal land distribution and exploitative land tenancy have been identified as among the factors of low productivity which is also reflected the underdeveloped state. The landholding structure like India, in Odisha colonial routes, has been diverse the land ownership in the state and it varies across the districts. Over the years there have been many changes in the landholding structure and an attempt has been made here to identify the main changes in land ownership and operation.

LIVELIHOOD PATTERNS IN RURAL ODISHA: INSIGHTS FROM THE FIELD SURVEY

3.1 Introduction:

The rural economy of Odisha is characterised by the predominance of agriculture. In the recent past, there has been a growth of rural non-farm employment and out-migration from some parts of the state. In this chapter the basic livelihoods profile of the sample households have been discussed so that the livelihoods context of caste-based discrimination can be analysed. The basic characteristics of the study villages in the coastal belt of rural Odisha is the predominance of the agriculture-based livelihood pattern. One of the important occupations of the rural areas is crop cultivation. Despite the declining dependency on agriculture still, in the rural Odisha, people spend a large part of the total working days in agriculture in a year. As the land owned by majority of the cultivators is very small, they are forced to work as casual labour for their survival.

Like in many other parts of rural India, rural Odisha has also faced a prolonged period of distress. There have been reports of farmer suicides from Odisha¹ as well. Such signs of rural distress have also been reported from developed states like Punjab, Andhra Pradesh, Maharashtra². With low profitability of crop cultivation, farmer households are being forced to depend on alternative sources of livelihoods³. There has been a move towards diversification to the rural non-farm economy. Further, there has been a rise in commuting and seasonal migration for work. In some regions, partly as a result of both these factors, small and marginal farmers have started to lease-out their land, or gradually moving out of agriculture. This process has been termed as depeasantisation, but mostly it is confined to the agriculturally developed states like Punjab and Haryana⁴ (Sharma and Singh, 2014). The employment situation in India is such that those displaced or moving out of the agricultural sector are not being absorbed in the urban areas. Though there has been economic growth

¹See more details on Sambad editorial page on 11th April, 2017 'Farmer Suicide, price of paddy and Commitment at Legislative Assemble' by Lingaraj and also see the 13th January 2016 editorial page 'Farmer Suicide and its Solution' by Janakish Badapanda.

²Mishra (2008) argues that small and marginal farmer households face crisis due to less rain fall, fluctuation of crop prices, high rate of interest, unable to store crops, which results in heavy indebtedness and, in some cases, suicides.

³The share of cultivators among total rural main workers was 35.82 per cent in 2001 and it has declined to 30.73 percent in 2011.

⁴ So we find some part of Punjab and Haryana reverse tenancy on land operational holding. So the household mildly changes their livelihood from agriculture to non-agriculture and change simultaneously to his family member occupation.

since the economic reforms in the 1990s, it has been mostly a 'jobless growth. Thus, most rural workers are being absorbed in the urban informal sector (Harriss-White 2003). Also many workers are engaged in 'precarious employment', which are basically low-paying, insecure jobs⁵ (ITUC, 2011; ILO 2015). Thus, wage earners and self-employed are trying to find employment in a number of different sectors and are engaged in a variety of employment (Lerche, 2009). The narrow framework focussing on primary occupation of agriculture labour, and their movement from cultivation to non-agriculture activities, does not capture these aspects of the labour market situation in India. Livelihoods diversification has emerged as a key aspect of rural change (Ellis 2000). However, this process of livelihoods diversification is not a neutral process, these opportunities are not available to all classes and caste groups equally.

Access to employment and livelihoods is based on access to different kinds of assets. From the economic point of view, the inequality in access to assets, such as agricultural land, between scheduled caste and other caste groups is large (Thorat and Newman, 2010:10). Access to formal and informal institutions is also unequal and are maintained through caste networks. She is argues that old identities do not go away with the progress of rural economy. Because in rural economy or informal economy where large section of Dalits and Tribals poor worked, and it is operated by the society rather than the government or state. So in the social regulation caste and caste based organisation play an important role. So the divisions and discrimination on the basis of caste, religion and gender perform new 'regulatory functions' in Indian economy (Harriss-White, 2005). This happens because of the significance of caste⁶ in the rural economy. Dalits face discrimination by higher caste restricting their access work, assets and institutions⁷. Scheduled caste population are discriminated against in terms of lower wages, longer work hours, denied access to various opportunities etc. which can have an adverse impact on the labour markets in terms of productivity and development of economics. The discrimination in input and output markets are ultimately leading to

⁵ The details of India's non standard form of employment and working condition of poor see the two report of International Labour Organisation (ILO) 'The regulation of Non-Standard Form of Employment in India, Indonesia and Viet Nam, Working Paper Series 63. and International Trade Union Confederation report 'Living with Economic Insecurity: Women in Precious Work', 2011, Pg.13-22.

⁶ Prof Barbara Harriss-White (2003) and Jodhka and Newmen (2010) explains about the societal discrepancy in the both rural and urban areas. They explain the rural society is regulated by the village level elite people. But the condition is that they must be belong to higher caste and rich person in holding of land assets.

⁷ Even in my survey village, some higher caste tuition teacher has declined to teach lower caste children. The main cause of that they are *Asarbarna* (i.e., untouchable). The lower caste people said that in their village not a single person from SC community has studied up to tenth class. Scheduled caste population are discriminated against in terms of lower wages, longer work hours, denied access to various opportunities etc. which can have an adverse impact on the labour markets in terms of productivity and development of economics.

widening of economic inequalities. In this chapter, an overview of the livelihoods scenario of the study villages have been presented. It is based on primary data, the main occupational pattern of rural coastal Odisha workers as casual labour or daily wage labour. The details of households working condition has been describe in the some sub sections of this chapter.

3.2 Occupational Structure of Households in Coastal Odisha:

Although state government is committed to the development of agriculture for the target to reduce poverty and inequality among the poor farmer who depends on agriculture, Odisha continues to have a low productive, mostly rain-fed agriculture with a significant concentration of poverty and malnutrition in these areas. The state government has started an initiative for agriculture development by introducing a separate 'Agriculture Budget' from 2013-14. The state government got the National award of 'Krishi Karman Award' for highest food grain production in the country for four-times. But the impacts of these programmes on farmers and agricultural wage labourers remains to be investigated.

The selection of the coastal belt district on the study focuses on the discrimination of wages related to agriculture and non-agriculture and their livelihood how to change with the income from casual labour. Apart from the other part of the state work more or less done by the various organisation and scholar, coastal part not much work about the lacuna of the wage gap between the occupation as well as the social groups of the state. So the study carried out to the four villages of coastal belt on sample basis. The sample size more than four hundreds and the data collected on the basis of stratified random process.

Table 3.1 Occupational Structure in Coastal Odisha 2011

Name of Dist. Region & State	Percentage of Rural Main Workers							
	All Social Groups Workers				Only Scheduled Caste (SCs) Workers			
	Cultivator	Agriculture Labour	Industry Workers	Other Workers	Cultivator	Agriculture Labour	Industry Workers	Other Workers
Baleshwar	40.75	29.20	2.63	27.43	35.46	37.64	2.97	23.94
Bhadrak*	44.45	24.94	2.38	28.24	37.58	38.19	1.73	22.50
Kendrapara	40.45	22.93	2.92	33.70	29.39	41.84	2.34	26.44
Jagatsinghapur	35.68	21.50	3.58	39.24	24.20	42.55	3.71	29.54
Cuttack	24.30	26.98	5.04	43.68	15.30	45.37	4.04	35.28
Jajapur*	27.89	27.80	3.37	40.94	19.83	49.68	2.09	28.40
Nayagarh	32.76	28.07	4.15	35.02	18.25	38.25	6.01	37.49
Khordha	26.07	19.92	3.83	50.18	13.90	27.80	2.52	55.78
Puri	39.69	21.11	3.24	35.96	19.30	42.43	3.14	35.14
Coastal Odisha	34.51	25.15	3.46	36.88	24.39	41.25	3.02	31.33
Odisha	37.33	27.32	4.01	31.34	24.52	38.38	4.68	32.42

Source: Census of India, 2011. Note: It is calculate from Rural main workers..* Districts have been selected for primary survey.

The two districts figure of workers composition given in **Table 3.1**. First we show the all social groups workers composition to main workers in rural areas and the second section describe about the scheduled caste workers composition. On the analysis of each district and region as well as Odisha cultivator percentage more than the agriculture labour as subsequent occupation on all social groups cases. However, in the calculation of only scheduled caste workers, agriculture labour are much more than the other occupation like cultivator, industry workers and other workers. In the coastal region of Odisha more than 41 per cent of rural scheduled caste main workers are agriculture labour as compared to 25.15 agriculture labour in all social groups. So the present study more focus on the casual agriculture labour working condition, wage gap, length of working hour, etc.

The details of the sampling process have been given in introduction chapter. The districts wise composition of the population across the social groups of nine coastal belt districts of Odisha has been presented in **Table 3.2**. As already stated, the sample was selected from four villages of two coastal belt districts of Odisha i.e., Jajpur and Bhadrak.

Table 3.2 Composition of Population across Social Groups in rural areas in 2011.

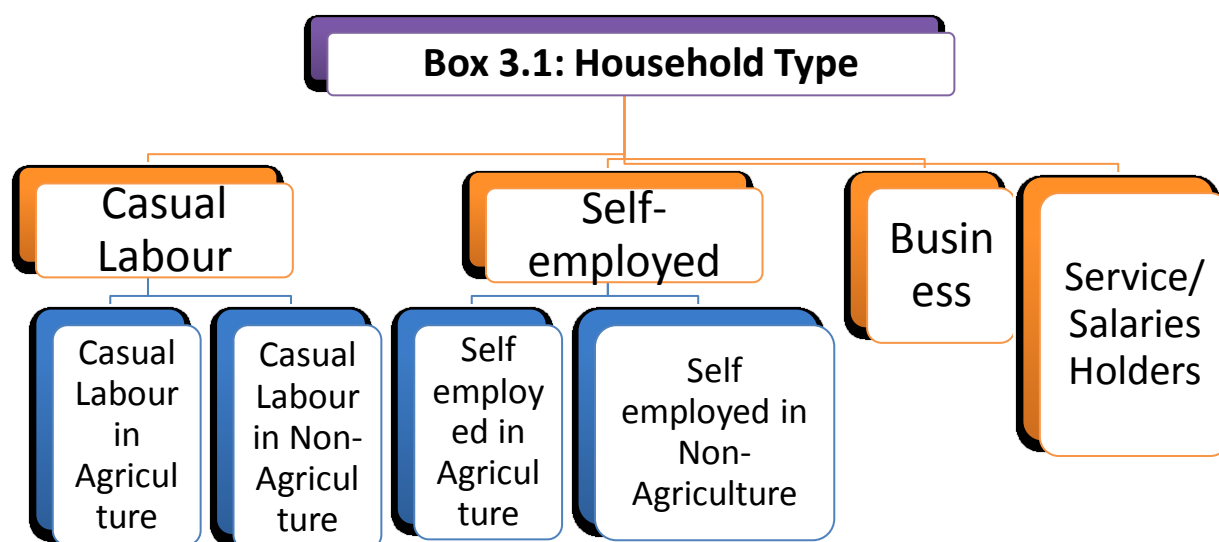
Districts Name	The composition of Population across Social Groups (in %)			
	SCs	STs	Other	Total
Jajpur	24.56	8.23	67.21	100
Bhadrak	23.95	1.84	74.21	100
Jagatsinghpur	22.69	0.44	76.86	100
Balasore	21.67	12.34	65.99	100
Kendrapada	21.65	0.65	77.7	100
Cuttack	21.54	4.32	74.14	100
Puri	20.71	0.31	79.99	100
Odisha	17.78	25.72	56.5	100
Khoradha	16.23	5.81	77.97	100
Nayagarh	14.26	6.52	79.22	100

*Sources: Census 2011, GOI. It is only for Rural areas. Note: In the village of Kanikapada in Jajpur some scheduled caste people claim we are scheduled tribes, but they really belong to a scheduled caste. As per as their information I kept them in scheduled tribes. About this incident, the verdict is pending in district court. All districts of Odisha population across the social groups see **Appendix 3.1***

The proportion of population across the social groups of coastal districts has been described in **Table 3.2**. So the two district Jajpur and Bhadrak chose due to highest scheduled caste population among the coastal belt districts. The villages were selected on the basis of Number of Agricultural Labour (in person) from total workers of the districts in 2011 census. One village with high share of Agriculture labour and high Scheduled Caste populations and another village with medium share of Agricultural labour and also a medium share of

Scheduled Caste population have been selected. The aim of the study is to focus on casual labour and there must be sufficient schedule caste population available. Thus, four villages from two districts i.e., Kanikapada, Mukundapur, Rahania and Chudamani, were selected for the study.

As per as the main occupation of households head employment and main income sources, categories the households. The categorisation of all household of the ward as based on the Population Census Abstract (PCA) of categories of *Household-Type*. It is depicted in the **Box No.3.1**/categories in a chart. The households selection was based on the stratified random sampling method in respect to household main occupation as a casual labour. The prime focus on the selection of household as *Agricultural labour*. So, the preference is given to more agricultural labour households or household whose main occupation as agricultural labour. The sample of the household from each social groups taken by proportionate of household across the social groups in the village.



Sources: NSSO, 2011-12, GOI

The first preference was given to chose casual agricultural (CAL) and then casual non-agricultural labour (CNAL), and so on as categories of household type. After the selection of the household of the villages, around one hundred households were selected from each of the villages through *stratified random sampling*. The samples from all household of whose main occupation is agriculture as an agriculture labour would be in proportion to their share of the population across social groups in the village.

3.2.1 Characteristics of Sample Households: After the selection of the villages, all the listing households of the villages were divided on the basis of two criteria: The households whose main occupation as agriculture and whose main occupation non-agriculture. The sample of households as proportion to the composition of total population in the village. The village wise distribution of selected sample households have been presented in **Table 3.3**. The sample was selected from four different villages of two districts of Odisha i.e., Jajpur and Bhadrak⁸. As per as the sampling process, collecting total 408 number of households from four villages according to their main occupation on principal sources of income or engagement basis. The overall composition of household based on their main occupation as an agricultural labour, average 100 households choose from each of the villages accordingly stratified random sampling. The caste composition of household in respective villages determine the availability of respective caste according to four social groups.

Table 3.3 Village-wise Distribution of Sample Households

Districts Name	Name of the Village	Number of Households	Percentage
Jajpur	Kanikapada	100	24.5
	Mukundapur	104	25.5
	<i>Total of Jajpur Districts</i>	204	50
Bhadrak	Rahania	102	25
	Chudamani	102	25
	<i>Total of Bhadrak Districts</i>	204	50
Total		408	100

Sources: Field Survey, 2016.

3.2.2 Distribution of Households across social group: The caste composition of the survey village is varied. The availability of scheduled tribes of the two villages of each district is less, so the absolute number of household belonging to scheduled tribes is less in comparison to the other caste-groups. In comparison to the district averages, the social groups other backward caste (OBCs), others (OTH) are over represented and the scheduled caste and scheduled tribes social groups are underrepresented in our samples in both districts. In Jajpur, scheduled caste population more than the Bhadrak districts across the district population. In Chudamani village of Bhadrak districts, there are no scheduled tribes households⁹. Another village of the same districts at Rahaniait was found that only eight scheduled tribe households live in the village.

⁸ For details of the sampling design and methodology of sampling see the introduction chapter.

⁹ Although some people said to claim that we belong to scheduled tribes, but according to village surpunch they have not scheduled tribe because they belong to Hyderabad, they stay here last twenty years. They are called in village language as a *Kela* and *Telenga*.

According to the caste composition of the respective villages, it was found that overall, In the total sample of households around 38 per cent of households belong to scheduled caste, 13 per cent belong to scheduled tribes, 35 per cent are other backward caste (OBCs) and 14 per cent to higher caste or another caste. The social group-wise distribution of total household of the two districts and the respective study villages has been explaining in **Table 3.4**.

The caste composition of the respective districts of survey village also varies, viz. in Jajpur only 30.8 per cent of the household belong to scheduled caste, 22.05 per cent belong to scheduled tribes, 32.8 per cent belong to OBCs and 13.7 per cent belong to higher castes, as shown in **Table 3.4**. In Bhadrak around 47 per cent belong to SCs, 4 per cent belong to STs, 37 per cent OBCs and 14 per cents are others or higher caste.

Table 3.4 Village wise Distribution of household in Social Groups

Districts Name	Name of the Village	Category of Household across Social Groups				
		SCs	STs	OBCs	OTH	ALL
Jajpur	Kanikapada	30 (30) [19.5]	29 (29.0) [53.7]	29 (29.0) [20.3]	12 (12.0) [21.1]	100 (100.0) [24.5]
	Mukundapur	33 (31.7) [21.4]	17 (16.3) [31.5]	38 (36.5) [26.6]	16 (15.4) [28.1]	104 (100.0) [25.5]
Total of Jajpur District		63 (30.8) [40.9]	46 (22.5) [85.1]	67 (32.8) [46.8]	28 (13.7) [49.1]	204 (100.0) [50.0]
Bhadrak	Rahania	46 (45.1) [29.9]	8 (7.8) [14.8]	36 (35.3) [25.2]	12 (11.8) [21.1]	102 (100.0) [25.0]
	Chudamani	45 (44.1) [29.2]	0	40 (39.2) [28.0]	17 (16.7) [29.8]	102 (100.0) [25.0]
Total of Bhadrak District		91 (44.6) [59.1]	8 (3.9) [14.9]	76 (37.2) [53.2]	29 (14.2) [50.8]	204 (100.0) [50.0]
TOTAL		154 (37.7) [100.0]	54 (13.2) [100.0]	143 (35.0) [100.0]	57 (14.0) [100.0]	408 (100.0) [100.0]

Sources: Field Survey 2016. Note: Figures within round brackets refers to row total. Figures within square brackets refer to the per centage of column total.

3.2.3 Household size and dependency burden: The rural household size more than the urban household size because the poor parents think the benefit of their children is more than the economic cost of their children. According to the Mamdani (1974: 14), ‘People are not poor because they have large families. Quite the contrary, they have large families because they are poor’. The World Development Report 1984 has also noted that ‘There are good reasons why, for poor parents, the economic costs of children are low. The economic (and other) benefits of children are high and having many children makes economic sense’

(Mishra and Puri, 2013:114). So the poor people family member were increased as on the aim of getting more benefits from the large family member.

The average household size in the surveyed village has been explaining in **Table 3.5**. It is found that the average size of household in all villages is 5.21. The average family size of the rural areas is still more than urban areas. In all the surveyed villages, except one village, average family size is more than five. In Rahania, the average family size is less than five. The average number of active workers¹⁰ per family has been presented in **Table 3.5**. The active worker, who are working in the field survey time period in the age groups 18 to 59 years of age. Overall all village average worker per households is 1.67, which indicate that the average number of working members per household is less than two member. That indicates that out of average five-member only one member of the household working actively in the whole years and rest of all member depend on the income of that person. The percentage of workers to total family members is around 32 per cent. That means the 70 per cent of a family member is dependent on the 30 per cent of working family members.

Table 3.5 Village wise average household size, worker, and percentage of a worker per family.

Name of the Village	Average household/Family Size	Average number of workers per household	Percentage of workers to total family members
Kanikapada	5.36	1.55	28.92
Mukundapur	5.63	1.87	33.11
Rahania	4.6	1.63	35.43
Chudamani	5.25	1.64	31.21
Total (All village)	5.21	1.67	32.07

Sources: Field Survey, 2016.

The percentage of a worker varies from around 29 per cent in Kanikapada to 35.43 per cent in Rahania. So the dependency is less in the village of Rahania than the other villages. The details of caste wise average number of worker and percentage of a worker per family has been placed in **Table 3.5**.

Average household size among the social groups varies in compared to village wise mean number of workers explained in **Table 3.6**. It indicates the family size or household size on the caste basis in four villages. In respect of all village data, scheduled tribes household

¹⁰The active worker is defined as one who is in the age group of 18-59 years of age and is ready to work in any time in a year as any work. The worker must add some income of the total income of the household. This include those who are work during the reference period. It include all works as self-employed in agriculture as well as in non-agriculture, and add some income to that of the household. It also include the workers like casual agricultural labour, casual non-agricultural labour, all migrant workers, business men, service/salaries holder.

family size is less than in compared to other three castes of the village. The scheduled caste and OTH caste household average size of the family are same and other backward caste cases it is slightly higher than them. If we analysis the all village the average size per household 5.25, that means more than five members per family. This is a help to measure the large and small family in the society. Although the joint family is not much existing some village in my study more than twelve members jointly lived in a household. This type of joint family found in the higher caste i.e., other backward caste and other. The scheduled caste and scheduled tribe family member less than the higher caste. Except village Rahania, all village more than five-member family exist. Among the village Mukundapur, average family size 5.63 i.e., around six member of each household. Across the social groups in village Rahania, average household size less than the three other castes in all village of the two districts. In Mukundapur, average household size 6.56 per household in the OTH caste which is top among the village and social groups of the study. The family size more details explained in **Table 3.6**. On an average OBC households have a larger household size. In three of the four study villages, SCs have a larger household-size than that of the village averages.

Table 3.6 Social group wise average household size

Village Name	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	5.73	4.62	5.76	5.25	5.36
Mukundapur	5.59	5.38	5.39	6.56	5.63
Rahania	4.76	4.13	4.6	4.27	4.6
Chudamani	5.2	0	5.53	4.72	5.25
All Village	5.26	4.77	5.31	5.26	5.21

Sources: Field Survey, 2016.

The average number of workers per household and percentage of workers to total household members have been presented in **Table 3.7**¹¹. Among the social groups, OBCs have a higher household size followed by the SCs. However, there are significant inter-village differences. The average number of a worker in Mukundapur (1.87) is highest among all the villages. In the villages, Rahania and Chudamani have same average number of workers per family while in Kanikapada average number workers working per family is 1.55, which is lowest among all the villages. The average number of workers in all villages and all social groups is 1.67.

¹¹These estimates are based on sample characteristics. According to the Primary Census Abstract 2011, the average household size in the study villages are as follows: Kanikapada (4.08), Mukundapur (4.73), Rahania (4.66) and Chudamani (4.72).

This indicates the village wise population ready to work and support the family for the better living standard.

Table 3.7 Social groups wise Average number of worker and percentage of workers per household working during the period

Social groups and Name of villages	Kanikapada	Mukundapur	Rahania	Chudamani	All Village	
Average number of workers per HHs	SCs	1.73	1.68	1.65	1.52	1.64
	STs	1.31	2	2	-	1.62
	OBCs	1.76	1.92	1.46	1.9	1.77
	OTH	1.17	2	1.82	1.33	1.58
	ALL	1.55	1.87	1.63	1.64	1.67
Percentage of workers to total HH members	SCs	30.23	30	34.7	29.26	31.11
	STs	28.36	37.21	48.48	-	33.99
	OBCs	30.54	35.61	31.68	34.39	33.29
	OTH	22.22	30.48	42.55	28.24	30
	ALL	28.92	33.11	35.43	31.21	32.07

Sources: Field Survey, 2016. Note: Percentage of workers calculated total workers out of total population from the specific village and social groups.

Among the social groups the average household workers depicted in the same **Table 3.7**. In the first village, we find among OBCs average workers 1.76 which is highest among all the social groups of the village. In OTH, 1.17 average number of worker are available per household followed by scheduled tribes i.e., 1.31 worker per family. In village Mukundapur, scheduled tribes and OTH groups have two workers per household and for the scheduled caste it is 1.68 which is lowest in the village across the social groups. In Rahania, scheduled tribe average two members of a household are workers which are highest in the village. Among the social groups in Rahania in OBCs average household worker less than in compared to the three social groups. Like above three villages, in Chudamani, OTH groups less number of individual are working and among the OBCs number of workers ready or working in the current period. From the average individual working condition across the social groups and different village dependency ratio also calculated. The dependency burden of the family explained in the same **Table 3.7**. Among all village and taking all social groups around 32 per cent per household are workers. Which indicate that per family only 32 per cent of a family member is working or workers and rest 68 per cent of a family member are dependent on them.

The social group's wise dependency burden of each village is also depicted in **Table 3.7**. Which indicate that in scheduled tribes percentage of a family member is more than the

other three social groups of taking all villages. Around 34 per cent of family members are workers among the scheduled tribes which indicate among them less family members depend on the other member of income. It implies that among the scheduled tribes there are more active workers than those dependent on the other member of the family. Like the scheduled tribes, OBCs groups' dependency burden also less as 33.29 per cent of workers per family is working. Among the all social groups OTH groups, 70 per cent of a family member depends on the 30 per cent of family income. If we analyse the village wise across social groups workers per household, we find that in Kanikapada, OTH groups have the lowest percentage of a family members who are working and OBCs group has highest per cent of a family member as workers. In village Mukundapur, among the scheduled castes, only 30 per cent are workers and the rest depend on them. In Rahania, among scheduled tribes, 48.48 per cent per household are workers which is highest among the village and social groups. In this village, in OTH the dependency burden is also less as 42.55 per cent per family member are workers but among the OBCs it is lowest among the social groups in the village. In Chudamani, 31.21 per cent of workers per household are workers among all social groups. The dependency burden among the OTH is more than that among the other social groups in the village because only 28.24 per cent of a family are working.

3.3 Principal Occupation of the Head of the Household:

The study of the village located belongs to higher agricultural labour according to the population census. The principal occupation can be measured in two ways, viz. (i) principal sources of income of the household and (ii) engagement in the occupation for the major part of the days employed in a year i.e., the highest share of number of working days that the person is engaged in a year. In this section, the principal or main occupation of the head of the household is determined on the basis of employment or engagement. Occupations have been clubbed into two groups: agriculture and non-agriculture. Agriculture includes all agricultural activities includes all agricultural works like self-employment in agriculture for crop-cultivation, casual labour in agriculture, animal husbandry, forestry, beekeeping etc. Non-agriculture includes all non-agricultural activities such as non-agricultural work doing in a home like own house construction, work at the own shop, work at the own business, work in home side work, casual labour work as like woodcutting, cooking, tractor driving, soil lifting etc. The service and business categories also include the non-agriculture occupation.

Table 3.8 Distribution of Households According to The Main Occupation of Head of the Household

Name of villages <i>main occupation</i>	Jajpur		Bhadrak		Total all villages
	Kanikapada	Mukundapur	Rahania	Chudamani	
Agriculture	30 [30.0]	30 [28.85]	32 [31.37]	24 [25.53]	116 [28.43]
Non-Agriculture	70 [70.0]	74 [71.15]	70 [70.0]	78 [76.47]	292 [71.57]
Total No. of households	100 [100.0]	104 [100.0]	102 [100.0]	102 [100.0]	408 [100.0]

Sources: Field Survey, 2016. Note: It is reported by Respondent. **Agriculture**: include self-employed in agriculture (SEA), casual labour in agriculture (CAL) and **Non-Agriculture**: include self-employed in non-agriculture (SENA), casual non-agricultural labour (CNAL), regular wage/salaries earning, business and pensioners.

The information given in **Table 3.8**, shows that around 70 per cent of household heads work in non-agricultural sector as their main occupation for their livelihood. Among the villages in Chudamani, casual non-agricultural labour more than the casual agricultural labour. Only 25 per cent of household heads reported their main occupation as agriculture labour in this village. The social group wise distribution of household in their main occupation has been presented in **Table 3.9**. Out of 408 households of the four villages 71.57 per cent of households have reported main occupation as non-agriculture. Among the SC social group, 62 per cent are engaged in non-agriculture and rest on agriculture out of 154 scheduled caste households. Among the Scheduled Tribe households, 62 per cent household head's main occupation was non-agriculture. However, the share of ST households is lower than other social groups in the sample. Among the OBCs and OTH households around 80 per cent of the total household are engaged in non-agriculture and less than 20 per cent are in agriculture.

Table 3.9 Social groups wise distribution of households according to the main occupation of head of the household.

Name of villages and <i>main occupation</i>	Number of households across social groups				
	SCs	STs	OBCs	OTH	ALL Caste
Agriculture	58 [37.66]	20 [37.04]	26 [18.18]	12 [21.05]	116 [28.43]
Non-Agriculture	96 [62.34]	34 [62.96]	117 [81.82]	45 [78.95]	292 [71.57]
Total No. of households	154 [100.0]	54 [100.0]	143 [100.0]	57 [100.0]	408 [100.0]

Sources: Same as Table 3.8.

On the engagement basis, the household is working on agriculture for maximum days. The employment pattern also varies across the village basis which indicates that the chance of getting non-agricultural work is not uniform. Like in Chudamani village of the Bhadrak districts some people are working in fisheries, working in *Jeti* where boat and trollers. They are part of the network that supply fish for auction and also for export to other states and countries. But in village Mukundapur, people are mostly working in cultivation like paddy, wheat, vegetable. Although the majority of the households are landless, they are engaged in farming in the leased-inland. Some people cultivate both seasons of crops like paddy, moong and vegetables.

The distribution of household members according to employment on the basis of the aggregate number of days working in different sector explained in **Table 3.10**. It indicates that employment situation of the households, not only of the heads. More than 85 per cent of the household are casual labour whose main sources or main occupation as casual agriculture or non-agricultural labour. In all the villages except Rahania, around 70 per cent of the household are working as casual non-agricultural labour, but in Rahania village highest percentage of agriculture labour found than other three villages.

Table 3.10 Distribution of households according to a member of individual engaged in different occupations

Name of Village	CAL HHs	CNAL HHs	SENA	SEA	RW/SE	Business	Total
Kanikapada	15 (15.0)	68 (68.0)	12 (12.0)	0	5 (5.0)	0	100 (100.0)
Mukundapur	18 (17.3)	70 (67.3)	5 (4.8)	3 (2.9)	3 (2.9)	5 (4.8)	104 (100.0)
Rahania	31 (30.4)	60 (58.8)	1 (1.0)	2 (2.0)	5 (4.9)	3 (2.9)	102 (100.0)
Chudamani	20 (19.6)	72 (70.6)	0	3 (2.9)	3 (2.9)	4 (3.9)	102 (100.0)
All Village	84 (20.6)	270 (66.2)	18 (4.4)	8 (2.0)	16 (3.9)	12 (2.9)	408 (100.0)

Sources: Field Survey, 2016, Note: CAL HHs-casual agricultural labour households, CNAL HHS-casual non-agricultural labour households, SEN A-self employed in non-agriculture, SEA-self employed in agriculture, RW/SE-regular wages or salaries earners It is categories as per a member of household employment.

The social group's wise actual occupation of the household is explained in **Table 3.11**. It also explains the percentage of household across the social groups taking all village of the two districts. More than 92 per cent of scheduled caste household are casual labour which is the summation of 67.5 per cent are casual non-agricultural labour and 26 per cent in casual agricultural labour. Which indicate the scheduled caste household depend more on the income from daily wage for their livelihoods rather than other occupations.

Table 3.11 Social groups wise Distribution of households according to a member of individual engaged in different occupations

Social Groups	CAL HHs	CNAL HHs	SENA	SEA	RW/SE	Business	Total
SCs	40 (26.0)	104 (67.5)	3 (1.9)	1 (0.6)	3 (1.9)	3 (1.9)	154 (100.0)
STs	15 (27.8)	35 (64.8)	0	0	4 (7.4)	0	54 (100.0)
OBCs	20 (14.0)	94 (65.7)	11 (7.7)	5 (3.5)	6 (4.2)	7 (4.9)	143 (100.0)
OTH	9 (15.8)	37 (64.9)	4 (7.0)	2 (3.5)	3 (5.3)	2 (3.5)	57 (100.0)
ALL	84 (20.6)	270 (66.2)	18 (4.4)	8 (2.0)	16 (3.9)	12 (2.9)	408 (100.0)

Sources: Field Survey, 2016, Note: It is categories as per a member of household employment.

Like the scheduled castes, scheduled tribes household also more work in casual labour in non-agriculture and agriculture. Among the OBCs and OTH groups around 80 per cent of the household are working in casual labour although it is less than the lower caste household. Due to the study focus on more on casual labour so the variation of the occupation across the social groups, as well as the village basis more casual agricultural and non-agricultural labour, were taking in the study.

3.4 Secondary Occupation of Household Head:

Some household response that although the main engagement in agriculture they are working as non-agricultural work after the Kharif season. The secondary occupation of the household is concentrated on the casual labour in non-agriculture. In rural areas, people's occupation is also determined by the age of the individual. That indicates the dependency of the household on the other member of the household. Although the people spend time on home-based work but the working-age member of household engagement most of the time in any productive activities. The secondary occupation of the household belongs to work in home-based work, which is mainly related to livestock and animal husbandry work. It varies according to the caste-based occupation. Like a higher caste doing worship or otherwise engaged in self-employment activities like the grocery shops etc.. Some forms of self-employment are not available for the SCs. For example, the scheduled castes are not able to open a grocery shop or pan shop in the village. In rare cases, that they do, their claims are only from their own castes. In my study village of Mukundapur, of Jajpur districts, one poor scheduled caste person narrated his story about how the higher caste did not buy vegetables from his vegetable shop. He faced many problems in the selling of vegetables. Only his own caste people take the vegetable from his shop. So within three months of opening his new cabin of the vegetable shop, he was bound to sell it off. Then he changes his occupation from

shopkeeper to tractor loader in the village and nearby villages. Now he is working as casual labour in non-agriculture and maintains his six-member family.

3.5 Employment status of Workers:

The composition of workers according to the employment status of the household in the individual basis has been explaining in **Table 3.12**. This indicates the individual's current employment statuses and attached with which activity in the current period. The total number of population of four villages is 2128, which is the summation of the population from Kanikapada, Mukundapur, Rahania and Chudamani i.e., 536 from Kanikapada, 586 from Mukundapur, 471 from Rahania and 535 from Chudamani. The village wise working and not working population has been explaining in **Table 3.12**. Which indicate that 66.44 per cent of the population is not working and only 33.55 per cent of the population are working or active to work during the survey period. Working population include those who are currently working or ready to work but not find the work. This is the summation of self-employed in agriculture and non-agriculture, casual labour in agriculture and non-agriculture, migrant labour, engaged with any business, services or regular wage earners and unemployed person. Non-working groups include the student, attached to domestic work (mainly ladies), child, old age people, physically challenged and those are not seeking or not interested to work. In analyse of all village Mukundapur and Chudamani large section of the population are not working means they depend on the income of another family member. In Rahania, around 38 per cent of the population are working which is highest in the village.

Table 3.12 Village wise distribution of population or individual according to activity status of four villages

Activities of persons	Village wise activities of persons				
	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
Working and active to work	184 [34.28]	190 [32.42]	177 [37.57]	163 [30.46]	714 [33.55]
Not working*	352 [65.67]	396 [67.57]	294 [62.42]	372 [69.53]	1414 [66.44]
Total population	536 [100]	586 [100]	471 [100]	535 [100]	2128 [100]

Sources: Field Survey 2016. * indicate those who are out of labour force include like a student, old age, ph, child and engage in domestic duties only (women); Note Parenthesis indicate each of village total

The village wise composition of the population working and not working among the social groups has been presented in **Table 3.13**. On the social group's basis out of the total (2128 persons), 808 people belong to a scheduled caste, 763 belong to OBCs, 298 from OTH

and 259 belongs to scheduled tribes. In both district scheduled tribe population composition is less as per as the demographic composition of the district population, so the proportion of scheduled tribes population comparatively less than other social groups. It is the summation of all village population among the social groups. Among the scheduled caste and OTH, more or less equal to 68 per cent are not working. But in scheduled tribes and another backward caste larger section of people are working or ready to work.

Table 3.13 Social groups wise all villages distribution of population or individual according to activity status

Activities of persons	Social Groups wise				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Working and active to work	259 [32.05]	94 [36.29]	267 [34.99]	94 [31.54]	714 [33.55]
Not working*	549 [67.94]	165 [63.7]	496 [65.0]	204 [68.45]	1414 [66.44]
Total population	808 [100]	259 [100]	763 [100]	298 [100]	2128 [100]

Sources: Field Survey 2016. * indicate those who are out of labour force include like a student, old age, ph, child and engage in domestic duties only (women); Note Parenthesis indicate column total

3.5.1 Sectoral distribution of workers shares:

It indicates the distribution of workers or individual who are active to work or working in the current period. This shows the share of a worker who is attached with agriculture and non-agriculture and some are unemployed in the current period. This is calculated only for the total working population of the respective village population who are ready to work or attached to any activity.

Table 3.14 Proportion of worker working in agriculture, non-agriculture and unemployed.

Activities of persons	Village wise activities of persons				
	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
Working in agriculture	1 [0.54]	38 [20.0]	44 [24.85]	32 [19.63]	115 [16.1]
Working in non-agriculture	118 [64.13]	145 [76.31]	119 [67.23]	130 [79.74]	512 [71.7]
Unemployed or seeking Job	65 [35.32]	7 [3.68]	14 [7.9]	1 [0.61]	87 [12.18]
Total working and active to work individual	184 [100]	190 [100]	177 [100]	163 [100]	714 [100]

Sources: Field Survey 2016. **Agriculture includes:** self-employed in agriculture and casual labour in agriculture and **Non-agriculture include:** self-employed in non-agriculture, casual non-agricultural labour, commuting migrant labour, seasonal migrant labour, whole year migrant labour business and service; Note Parenthesis indicate column total.

In **Table 3.14**, village wise percentage of a worker working in agriculture and non-agriculture has been explained. In the first village Kanikapada, a large section of workers working with non-agriculture like construction labour, the weaving of bamboo container etc. In this village unemployed workers more than another village, which is around 35 per cent. In Mukundapur, 20 per cent of the individuals are working in agriculture and rest are working in non-agriculture. A large section of workers working in agriculture found in Rahania, where around 25 per cent of workers farm workers. Analyse of all village, 16 per cent of workers working in agriculture, 71 per cent are attached with non-agriculture and 12 per cent are unemployed out of 714 workers.

The social group's wise workers working in agriculture and non-agriculture has been presented in **Table 3.15**. Among the social groups, scheduled tribe people are more engaged in agriculture than other social groups in all village total but also among the scheduled tribe more workers are unemployed. Around 22 per cent of workers are working with agriculture and 54 per cent are working in non-agriculture. A large section of worker belongs to OBCs and OTH working in non-agriculture work than agriculture work. The share of unemployed among the scheduled tribe and scheduled caste more than the higher caste of the study villages. The scheduled caste people are not interested to work due to they have no land and work in agriculture not provide better remuneration for the given work. So they skip the agriculture as more leasing-in and prefer to work as migrant labour as commuting or outside of the state.

Table 3.15 The socialgroup's wise proportion of worker working in agriculture, non-agriculture and unemployed in all villages

Activities of persons	Social Groups wise				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Working in agriculture	47 [18.14]	21 [22.34]	30 [11.23]	17 [18.08]	115 [16.1]
Working in non-agriculture	163 [62.93]	51 [54.25]	225 [84.26]	73 [77.69]	512 [71.7]
Unemployed or seeking Job	49 [18.91]	22 [23.4]	12 [4.49]	4 [4.25]	87 [12.18]
Total working and active to work individual	259 [100]	94 [100]	267 [100]	94 [100]	714 [100]

Sources: Same as Table 3.14.

Some scheduled caste people of Kanikapada said higher caste landlord, were not interested to lease-out land to lower caste people, rather they prefer to keep it barren or unproductive. The higher caste thinks if the lower caste cultivates their land many years, the ownership may be converted to the name of the tenant farmer. So in this village, if higher caste are leasing-out land to lower caste, it is always for not more than two years. Similarly, in Mukundapur a large share of land has remained fallow for three to four years. This is a significant phenomenon in the country-side in many different states, (R. Vijay, 2012) has drawn attention to the rise of Non-cultivating households (NCH). The rising prices of land has made it an important store of value. In the cases, where they lease-out land, the NCH earn a rent. But when leasing-out might affect their ownership status, land is kept fallow.

So major section of workers belong to scheduled caste and tribes are unemployed than a higher caste of the villages. Those who are working in casual non-agriculture labour maximum are migrant labour who are mainly work in daily wage labour in Bangalore, Chennai, Hyderabad and Surat. In the higher caste although work more in non-agriculture work they work like in company job rather than labour work. So the social group's wise variation of workers engaged in agriculture and non-agriculture varies as per as the education level of workers as well as the land ownership in the villages.

3.5.2 Proportion of casual agriculture and non-agriculture labour:

The proportion of casual agriculture and non-agriculture labour is calculated from total workers who are working or engaged in productive work. The village wise proportion of casual agricultural labour and non-agricultural labour is presented in **Table 3.16**. More than 50 per cent of workers are casual labour in the entire sample. Out of 627 workers in four villages around 15 per cent are casual labour in agriculture and 38 per cent are working as casual labour in non-agriculture. In Kanikapada, less than 40 per cent of workers are casual labour, who mainly work in casual non-agricultural labour and more than 60 per cent are workers other than casual labour self-employed in agriculture and non-agriculture, migrant labour, business and service or regular wage earners. In Chudamani large section of workers are employed in casual non-agriculture labour than compared to the other three villages.

In Rahania, the proportion of casual labour work in agriculture more than the other village. Because of this village, the majority of workers are working in fish catching, daily wage agriculture labour in the village and a nearby village in the Kharif season. In this village, a large section of people depends on cultivation and the average land ownership per

household more than the other village. The social groups wise casual labour in agriculture and non-agriculture explain in the next point where we can know the proportion of people working in the casual labour of four villages.

Table 3.16 Percentage of casual agriculture and non-agriculture labour from total workers

Activities of working individuals	Village wise activities of working persons				
	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
Casual agriculture Labour (CAL)	1 [0.84]	29 [15.84]	37 [22.69]	25 [15.43]	92 [14.67]
Casual non-agriculture Labour (CNAL)	45 [37.81]	70 [38.25]	50 [30.67]	71 [43.82]	236 [37.63]
Other than Casual agriculture and non-agriculture labour	73 [61.34]	84 [45.9]	76 [46.62]	66 [40.74]	299 [47.68]
Total working individual	119 [100]	183 [100]	163 [100]	162 [100]	627 [100]

Sources: Field Survey 2016; **Note Casual agriculture labour (CAL):** who are work as casual labour in village and nearby village; **Casual non-agriculture include:** casual non-agricultural labour in village and casual commuting migrant labour(CCML); **Total working individual include** SEA, SENA, CSML, CWYML, Business and Service categories, only excluding unemployed or seeking job individual. Parenthesis indicate column total.

3.5.3 Caste-wise proportion of casual labour in agriculture and non-agriculture:

Across the activities of workers among the social groups has been explained in **Table 3.17**. In scheduled caste out of 210 working people, 43 per cent are other than casual labour which is the summation of self-employed, migrant labour and business holders. Less than 40 per cent of scheduled caste are casual non-agricultural labour and around 20 per cent are work in casual labour in agriculture. The large section of scheduled tribe workers are casual labour in agriculture in compared to other caste and it is around 28 per cent out of 72 scheduled caste workers of the villages.

Table 3.17 Social groups wise percentage of casual agriculture and non-agriculture labour from total workers

Activities of working individuals	Social groups wise working individuals				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Casual agriculture Labour (CAL)	41 [19.52]	20 [27.77]	23 [9.01]	8 [8.88]	92 [14.67]
Casual non-agriculture Labour (CNAL)	77 [36.66]	32 [44.44]	101 [39.6]	26 [28.88]	236 [37.63]
Other than Casual agriculture and non-agriculture labour	92 [43.8]	20 [27.77]	131 [51.37]	56 [62.22]	299 [47.68]
Total working individual	210 [100]	72 [100]	255 [100]	90 [100]	627 [100]

Sources: Same as Table 3.16.

Around 40 per cent of workers belong to other backward caste work as a casual non-agriculture labour and more than 50 per cent are work in a self-employed, migrant labour, business holder and service or regular wage earners. The large section of workers belongs to higher caste workers working other than casual labour in agriculture and non-agriculture. Because of higher caste workers not interest to work in casual labour rather than prefer to work more informal work like a business, company job, formal sector job or operating more land profitable farming.

3.5.4 Principal occupation of casual labour:

The primary occupation of the individual on the basis of employment calculated from the main occupation of the individual column. As per as calculation out of total population 668 persons are working or engaged in some activity which is a primary occupation.

Table 3.18 Village wise proportion of workers as their main or primary occupation (on the basis of days employment in last one year)

Main or primary occupation of workers	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
Self Employed in agriculture	0	4.9 [9]	3.2 [5]	4.4 [7]	3.1 [21]
Self Employed in non-agriculture	16.9 [28]	5.4 [10]	2.5 [4]	0	6.3 [42]
Casual agriculture labour (CAL)	15.7 [26]	16.2 [30]	24.1 [38]	16.4 [26]	18 [120]
Casual non-agriculture labour in village (CNAL)	35.5 [59]	32.4 [60]	26.6 [42]	42.1 [67]	34.1 [228]
Casual commuting migrant labour	0.6 [1]	3.8 [7]	1.9 [3]	0	1.6 [11]
Casual seasonal migrant labour	13.3 [22]	12.4 [23]	25.3 [40]	19.5 [31]	17.4 [116]
Casual whole year migrant labour	10.2 [17]	16.2 [30]	8.9 [14]	7.5 [12]	10.9 [73]
Business	4.2 [7]	6.5 [12]	4.4 [7]	3.8 [6]	4.8 [32]
Service or Regular Salaries	3.6 [6]	2.2 [4]	3.2 [5]	6.3 [10]	3.7 [25]
All occupation	100 [166]	100 [185]	100 [158]	100 [159]	100 [668]

Sources: Field Survey, 2016. Note column total is equal to 100 per cent. Parenthesis is the absolute figure of workers main occupation as per as the number of days employed. For the social groups, wise see **Appendix 3.3**

Out of 668 workers, 120 people main occupation as casual agriculture labour, 228 people main occupation casual non-agriculture labour. And rest like 21 person, 42 person, 11 person, 116 person, 73 person, 32 person and 25 person whose primary or main occupation as self-employed in agriculture, self-employed in non-agriculture, casual commuting migrant

labour, casual seasonal migrant labour, casual whole year migrant labour, business and regular salaries or wage earners respectively. The details on the basis of percentage and the absolute figure have been explaining in **Table 3.18**. The average number of days work in agriculture and non-agriculture by casual labour in last one year has been explaining below.

3.5.4a An average number of days work in agriculture:

On the basis of employment as an indicator for the principal occupation of an individual shows the individual last one-year principal employment sector. From this, we can categorise the individual as casual labour in agriculture or in non-agriculture. So the average number of days per workers engaged in a primary or principal occupation in different activities has been presented in **Appendix 3.4**. The workers whose main occupation as casual labour in agriculture and non-agriculture, the average number of days worked in agriculture and non-agriculture has been presented in **Table 3.19 and 3.20**. Around 120 casual agricultural labour were found in the four villages. In Kanikapada and Chudamani 26 casual agricultural labour found from each village and in the rest two villages 30 and 38 casual workers in Mukundapur and Rahania were found respectively. Among all the villages, highest number of casual labour in agriculture was found in Rahania. The average number of days work in casual labour in agriculture of all village is 83 days. In Kanikapada, the highest number of days (i.e., 98 days) work in as agriculture labour by casual agriculture labour in compared to all villages. The lowest average days of work at Chudamani which is average 70 days out of the 365 days. Among the social group's scheduled tribe and scheduled caste average number of days work as casual labour is 85 and 84 days respectively. The lowest days engaged in agriculture labour belong to OTH groups and followed by another backward caste, which is 76 and 80 days in a year work as casual labour in agriculture. If we compared to across the social groups in village wise average number of days work in agriculture by casual agricultural labour found that in Kanikapada, average 102 days in a year work in agriculture labour by scheduled tribes and for scheduled caste, it is 96 days. In Mukundapur, average 83 days of work in agriculture labour by scheduled caste which is highest among the social groups in this village. In this village, scheduled tribes casual agriculture labour less work in agriculture than the other social groups. The average 90 days of work in agriculture by another backward caste in Rahania village, which is high than the all other social groups. In Chudamani, all social groups work as in casual labour in agriculture less than the other village among the caste. Due to in this village larger section of work as in casual non-agriculture labour than agriculture labour. Among the social groups, scheduled caste on an

average 67 days of work in agriculture as casual agricultural labour and for OTH and OBCs it is 70 and 73 days in a year. The details of an average number of days engagement have been explained in **Table 3.19**.

Table 3.19 Average number of days work in agriculture as a primary occupation of casual agricultural labour in a year

Village and social groups	Average number of days work per casual agricultural labour				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Kanikapada	96	102	-	-	98
Mukundapur	83	73	80	-	79
Rahania	85	83	90	79	85
Chudamani	67	-	73	70	70
All villages	84	85	80	76	83

Sources: Field Survey 2016. Note: Average number of days work as CAL whose primary occupation as agriculture. For other primary occupation see Appendix 3.4

3.5.4b An average number of days work in non-agriculture:

Like the casual labour work in agriculture, casual non-agriculture labour work in non-agriculture explained in **Table 3.20**. Around 228 individuals responded that their main occupation as casual non-agricultural labour and larger portion of a year they are engaged with the work in non-agriculture for their livelihood. So the person who says their principal occupation as non-agriculture labour, worked for 131 days of work in non-agriculture, which is much higher than those spent in agricultural work. Among the village in Kanikapada, an average number of days work in non-agricultural work by casual non-agricultural labour is 156 days, which is highest. But In Mukundapur, the average daily work in non-agriculture is lowest among the villages. Across the social groups other backward caste (OBCs) worked for more days in casual non-agricultural labour in a year than the scheduled caste, scheduled tribes and others. Among the social groups others (OTH), worked for 118 days of work in non-agriculture, which is the lowest among the social groups. The village wise analysis of average number of days works in non-agriculture by different social groups shows that, in Kanikapada 208 days of work in a year on non-agriculture by Other backward caste non-agricultural labour, whereas for scheduled caste it is 127 days, scheduled tribe 145 days and OTH 153 days. In Mukundapur, it is 130 days for another backward caste which is highest than other three social groups. In Rahania, scheduled tribes casual non-agricultural labour more work in a year than scheduled caste, other backward caste and others. In Chudamani, scheduled caste non-agriculture labour average 145 days work in non-agriculture than other backward caste and OTH. Among the village, in Chudamani, an average number of days

work in non-agricultural work by scheduled caste is highest. whereas in Kanikapada for scheduled tribes, other backward caste and OTH is highest i.e., 145 days, 208 days and 153 days respectively.

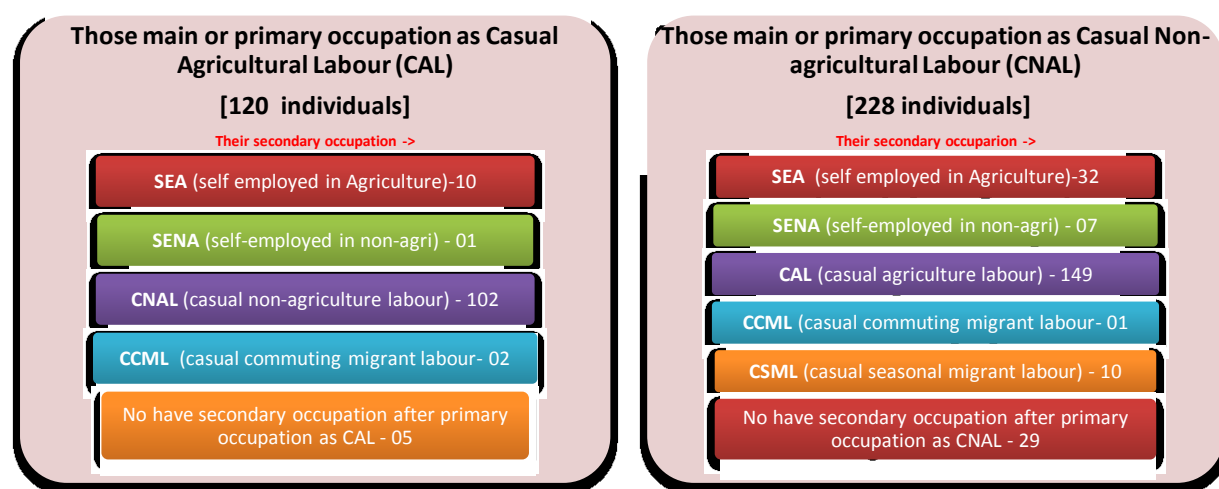
Table 3.20 Average number of days work in non-agriculture as a primary occupation of casual non-agricultural labour in a year

Village and social groups	Average number of days work per casual non-agricultural labour				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Kanikapada	127	145	208	153	156
Mukundapur	98	88	130	99	106
Rahania	117	135	129	130	124
Chudamani	145	-	129	121	135
All villages	126	122	146	118	131

Sources: Field Survey 2016. Note: Average number of days work as CNAL whose primary occupation as non-agriculture. For other primary occupation see **Appendix 3.4**

The average number of days work in agriculture and non-agriculture of the casual labour of the four villages 83 days and 131 days respectively. If we subsume all the main work occupation of 668 workers, the average number of days employed 162 days. The average number of days work as working person between the social groups, 187 days by another backward caste, 168 days by OTH, 144 days by scheduled castes and 135 days by scheduled tribes. So the average number of days work across the social groups OBCs is highest and scheduled tribes are bottom among the social groups on the aggregate of all village average. The caste wise, village wise and different occupation has been more explained in **Appendix 3.4**.

Box 3.2: The primary occupation of casual labour in agriculture and non-agriculture labour's secondary occupation:



Sources: Field Survey, 2016. Note: Distribution in numbers within the occupation of individuals.

That individual (120 persons) say their main occupation as casual agriculture labour on the employment of last one years, their secondary occupation as like: five individual say they are not doing any work after doing as primary occupation as agriculture labour in last year. Ten individual say they are working as self-employed in agriculture as a secondary occupation after doing principal days of work in agriculture labour, like that only one individual secondary occupation as self-employed in non-agriculture. A large section of workers whose main occupation as casual agriculture labour their secondary occupation is casual non-agriculture labour i.e., 102 people say their secondary occupation casual non-agriculture labour. Only two people say their secondary occupation as casual seasonal migrant labour after the completion of primary occupation as agriculture labour work in the village. The details see in **Box 3.2**.

Like the primary occupation of workers as agriculture labour's their secondary occupation explain in the above of four villages, primary occupation as casual non-agricultural labours out of 668 individuals 228 people found that their principal occupation as casual non-agriculture labour. A large number of workers main occupation as casual non-agriculture labour than other all activities. These non-agriculture labour secondary occupation as like 29 person said they are not doing anything after the main occupational work of as a casual non-agriculture work. So this person not operating any secondary occupation after the main occupation as non-agriculture work in last year. Thirty-two person said their secondary occupation as a self-employed in agriculture, seven-persons say self-employed in non-agriculture after the main occupation as casual non-agriculture labour. The large number of the person whose main occupation as casual non-agriculture labour, secondary occupation become casual agriculture labour i.e., 149 person doing casual agriculture labour whose main occupation as casual non-agriculture labour. Among the 228 casual non-agriculture labour, only one said engaged in casual commuting migrant labour and 10 people said employed in casual seasonal migrant labour as a secondary occupation after complete the primary occupation. The details of explanation have been predicted in **Box 3.2**.

3.5.4c Occupational Segregation:

The best measure of occupational segregation used by the researcher as like Duncan Index (1955) or Index of Dissimilarity (also known as Duncan Segregation Index) among the caste or gender. The value of Duncan Index ranges from zero to one. If zero come perfect equality otherwise one indicate perfect inequality. If the value of (Dc or I) become zero or nearer to

zero indicate no segregation or equality among the social groups in the occupation or job (i.e., inequality reduces or less), otherwise if one or nearer to one come indicate more segregation (inequality increases), that means have to change the main occupation. The index of dissimilarity is applicable to any categorical variables. The workers who are economically active to work in the current period in any productive activity are taken to measure the index of dissimilarity among the lower caste (SC/ST) and higher caste (OBC/OTH) occupation. This is calculate from 669 workers and measure how many workers main occupation as like self-employed in agriculture (SEA), self-employed in non-agriculture (SENA), casual agriculture labour (CAL), casual non agriculture labour (CNAL), casual seasonal migrant labour (CSML) and casual whole year migrant labour (CWYML).

Table 3.21 Primary or Principal Occupation of Workers

Caste	SEA	SENA	CAL	CNAL	CSML	CWYML	Business	RW/SE	Total
LC (y)	4	5	90	130	60	18	14	12	333
HC (x)	17	34	33	98	66	55	18	15	336
All	21	39	123	228	126	73	32	27	669

Sources: Field Survey, 2016. Note: SEA-self employed in agriculture, SENA-self employed in non agriculture, CAL-casual agriculture labour, CNAL-casual non agriculture labour, CSML-casual seasonal migrant labour, CWYML-casual whole year migrant labour, RW/SE- regular wages or salaries earner. LC- lower caste (SC/ST) and HC- higher caste (OBC/OTH).

This is explain that the workers main occupation as per as the employment in last one years. To measure the occupational concentration by the workers among the lower caste and higher caste Duncan Index used. It is help to identify the segregation level among the lower caste and higher caste as per as their main occupation. Because occupation of certain groups are more likely to some specific occupation rather than the other occupation which is help to improve the economic position. For example lower caste are more likely to engaged in the casual labour than the higher caste. So by the use of segregation index like Duncan Index, we can able to say that change of one occupation to other by the certain groups as compared to other groups for equality. The Duncan Index or Index of Dissimilarity formula as like:

$$Dc = \frac{1}{2} \sum_{i=1}^n \left| \frac{x_i}{X} - \frac{y_i}{Y} \right|$$

x_i is the (let) LCs workers of the i th occupation; X is the total LCs caste workers of the main occupation. Like y_i is the HCs caste workers of the i th occupation and Y represent the total

HCs workers of the main occupation. This is measure by the Duncan Index or Duncan Segregation Index.

$$Dc = 0.5 \sum_{i=1}^8 \left| \frac{x_i}{X} - \frac{y_i}{Y} \right|$$

than we can find¹² the level of dissimilarity value which help to bring equality among the social groups in occupation.

$$\Rightarrow 0.5 \{ 0.0385 + 0.0861 + 0.1720 + 0.0987 + 0.0163 + 0.1096 + 0.0115 + 0.0086 \}$$

$$\Rightarrow 0.5 \{ 0.5413 \} = 0.2706 \text{ i.e., } 27.06 \text{ per cent}$$

That means the occupational mobility among the social groups need to 27 per cent change from the one occupation to other occupation for the equality among the lower caste and higher caste on main occupation. Although, the occupational dissimilarity among the social groups not much known by the value of index 0.2706, however, there is also unequal occupation of the workers among the social groups. The lower caste have to change the occupation from the specified like casual non agriculture to other occupation for maintaining the equality with the higher caste occupation. The major drawback of this index as that the occupation of the other activity of the lower caste have to change from one occupation to other for that equality.

3.5.4d Location of the workplace of casual labour: Those individual say their primary occupation as casual labour in agriculture and non-agriculture, the workplace or location has been explaining in **Table 3.22**. Among the casual labour whose main occupation agriculture labour, more than 92 per cent are work at nearby villages and rest are work in the village. But

¹²The formula can be expanded as follows:

$$\begin{aligned} &= 0.5 \left\{ \left| \frac{x_1}{X} - \frac{y_1}{Y} \right| + \left| \frac{x_2}{X} - \frac{y_2}{Y} \right| + \left| \frac{x_3}{X} - \frac{y_3}{Y} \right| + \left| \frac{x_4}{X} - \frac{y_4}{Y} \right| + \left| \frac{x_5}{X} - \frac{y_5}{Y} \right| + \left| \frac{x_6}{X} - \frac{y_6}{Y} \right| + \left| \frac{x_7}{X} - \frac{y_7}{Y} \right| + \left| \frac{x_8}{X} - \frac{y_8}{Y} \right| \right\} \\ &= 0.5 \left\{ \left| \frac{17}{336} - \frac{4}{333} \right| + \left| \frac{34}{336} - \frac{5}{333} \right| + \left| \frac{33}{336} - \frac{90}{333} \right| + \left| \frac{98}{336} - \frac{130}{333} \right| + \left| \frac{66}{336} - \frac{60}{333} \right| + \left| \frac{55}{336} - \frac{18}{333} \right| + \left| \frac{18}{336} - \frac{14}{333} \right| + \left| \frac{15}{336} - \frac{12}{333} \right| \right\} \\ &\Rightarrow 0.5 \{ |0.0505 - 0.0120| + |0.1011 - 0.0150| + |0.0982 - 0.2702| + |0.2916 - 0.3903| + |0.1964 - 0.1801| + |0.1636 - 0.0540| + |0.0535 - 0.0420| + |0.0446 - 0.0360| \} \\ &\Rightarrow 0.5 \{ |0.0385| + |0.0861| + |-0.1720| + |-0.0987| + |0.0163| + |0.1096| + |0.0115| + |0.0086| \} \end{aligned}$$

in non-agriculture main occupation person's 35.5 per cent in a nearby village and 35.5 per cent doing work at outside of gram panchayat (GP). Only 4.4 per cent of casual non-agriculture labour work in a village where they live. Around 5 per cent of casual non-agriculture labour going for work outside the block. This is shown in village-like Mukundapur and Rahania. These villages belong to a neighbour of Keonjhor and Balasore districts. So they are going to work for non-agriculture like construction work, fishery and work in brick industries.

Table 3.22 Location of work of casual labour

Location of workplace	Casual agriculture labour		Casual non-agriculture labour	
	Number	Percentage	Number	Percentage
Home village	7	5.8	10	4.4
Nearby village	111	92.5	123	53.9
Outside G.P.	1	0.8	81	35.5
Outside block	1	0.8	11	4.8
Outside district	-	-	3	1.3
Total individual	120	100	228	100

Sources: Field Survey, 2016.

3.5.5 Employment status of workers in last six months:

It indicates that the workers in last six months attachment with different activities. It is asked to that individual who is actively working or engaged with like self-employed in agriculture and non-agriculture, casual labour in agriculture and non-agriculture, casual commuting migrant work, sometimes migrant to other states on a seasonal basis and sometimes doing business also. The study due to focus on more agriculture and non-agriculture related to labour and work as self-employed, so each of village employment of all workers (mainly in four types) in last six months has been explaining into two sub-section like self-employed and casual labour. It is calculated on taking on 668 workers who are actively engaged in the nine categories of work which is presented earlier in **Table 3.18**. The average number of days worked as self-employed in agriculture and non-agriculture and daily wage labour in agriculture and non-agriculture only analyse.

3.5.5a Average number of days work as Self-employed:

The workers who work in last six months on an average how many days work in own cultivation of crops, own non-agriculture type work like own homemaking, boundaries making, home-based work etc. On an average per workers, 16 days of work as self-employed in agriculture and 10 days in non-agriculture work explained in **Table 3.23**. Among the

village self-employed in agriculture, in Mukundapur on an average 18 day per workers work in a self-employed in agriculture in last six months which is highest among the village. Both Kanikapada and Chudamani, on an average 15 days' work in a self-employed in agriculture. Among the social groups, higher caste belongs to OTH and OBCs are more self-employed in agriculture than lower caste-like scheduled caste workers. Because on an average 22 days' work in self-employed in agriculture by OTH groups and 18 days by OBCs caste, but only 13 days by scheduled caste. Among the OTH, in all village except Kanikapada, on average more than 20 days' work in a self-employed in agriculture. Which indicate that the higher caste has land and attached more than the other caste in agriculture. In all village scheduled caste, not much days engaged in agriculture due to their land ownership is less and not cultivate much land in the last six months.

Table 3.23 Average number of days work as self-employed in agriculture and non-agriculture in last six months among the social groups in four villages

Name of villages and social groups	Average number of days work as Self-employed									
	Self-employed in agriculture (SEA)					Self-employed in non-agriculture (SENA)				
	SCs	STs	OBCs	OTH	All	SCs	STs	OBCs	OTH	All
Kanikapada	13	17	23	18	15	14	13	38	33	23
Mukundapur	16	18	17	25	18	13	16	5	17	11
Rahania	13	13	22	23	16	6	6	8	1	6
Chudamani	12	-	16	21	15	0	0	0	0	0
All villages	13	17	18	22	16	8	13	12	11	10

Sources: Field Survey, 2016.

Like the self-employed in agriculture, self-employed in non-agriculture on an average 10 days in last six months. Among the village, in Kanikapada around 23 days work as non-agriculture of each of workers on an average days employment basis. In Kanikapada, larger section of workers who are engaged in worship in the temple and periodic basis work at Kolkata. So the caste belongs to Brahmin and OBCs are self-employed more in non-agriculture among the village. The lowest average days self-employed in non-agriculture at Rahania, which is only 6 days. Among the social groups in scheduled tribes, more days work in non-agriculture than the other social groups. Scheduled caste workers only average 8 days engaged in non-agriculture in last six months. In Kanikapada, around 38 days work in non-agricultural activities by OBCs caste and 33 days by OTH, which is highest in all village and across the social groups work in non-agriculture. The scheduled caste and scheduled tribes self-employed more agriculture than non-agriculture due to their daily work will determine

their living standard. Although the large part of the time spend on casual labour but sometimes engaged as self-employed in agriculture which is taking from leasing-in land way from a higher caste. The village wise and across the social groups self-employed in agriculture and non-agriculture explained in **Table 3.23**.

3.5.5b Average number of days work as casual labour:

The employment status of workers on the casual labour in last six months has been depicted in **Table 3.24**. The daily casual labour work in agriculture less than non-agriculture work. Because cultivation of crops operates only once in a year in all villages. So the work as labour in agriculture less than non-agriculture works in last six months. The average number of days work in agriculture labour only 13 days but it is 23 days in non-agriculture. Among the social groups work as agriculture, scheduled tribes work more than another caste. Average 21 days work by the scheduled tribe and 18-day work by scheduled caste on agricultural work in last six months. The higher caste not much work as labour in agriculture all villages due to they are not much work as daily wage labour in the village rather than they prefer to work on the organised sector or contract work (a local language called *Thikadar*). In Mukundapur, scheduled caste and scheduled tribes more work as labour in agriculture than the other caste, but in Chudamani higher caste work more casual labour in the village as equal to scheduled caste. In Rahania, scheduled tribes workers on an average 26 days work in agriculture labour because of they have not cultivated any land due to landlessness and also not leasing in land in the current period. After the casual work they migrant to another place where the farming is operating lately.

Taking all villages together, on an average non-agricultural work was for 23 days which is around double of agriculture labour work. Among the villages, in Chudamani average number of days work in non-agriculture per work 29 days which is highest in the village. Across the social groups, scheduled caste workers more work in non-agriculture on taking off all village average. The highest number of days work as non-agriculture labour scheduled caste in Chudamani, and it for scheduled tribes in Mukundapur i.e., 38 days by scheduled caste and 55 days scheduled tribes respectively. The scheduled caste and scheduled tribes more or less equal number of days work in non-agriculture than higher caste shown in **Table 3.24**. Among the higher caste OBCs work more work in non-agriculture labour than OTH. Because in village-like Kanikapada and Rahania some OBCs caste work like a carpenter, wooden work, cooking in festivals and ceremonies, house making and driver. The

scheduled caste work like bamboo material called Jhudi making, band beater, rickshaw puller found in Kanikapada village. In Mukundapur, people work nearby brick industry, construction work in town, daily housework in rich families etc.

Table 3.24 Average number of days work as casual labour in agriculture and non-agriculture in last six months among the social groups in four village

Name of villages and social groups	Average number of days work as Casual Labour									
	Casual labour in agriculture (CAL)					Casual labour in non-agriculture (CNAL)				
	SCs	STs	OBCs	OTH	<i>All</i>	SCs	STs	OBCs	OTH	<i>All</i>
Kanikapada	23	18	0	1	13	28	28	23	16	25
Mukundapur	22	22	3	4	12	25	55	12	12	18
Rahania	15	26	10	9	14	21	27	19	17	21
Chudamani	14	-	12	14	13	38	-	23	25	29
All villages	18	21	6	7	13	28	26	19	17	23

Sources: Field Survey, 2016.

So the average worker in both agriculture and non-agriculture in the four villages based on the availability of work via the caste. Because caste is also one factor for determining of work in the village. Some workers express in Rahania, that scheduled caste female labour not allowed to work like making of wheat or flour making a machine in the village. due to they are belong to lower caste, if they work the product is not taken by the higher caste. Even if a scheduled caste opens a shop no higher caste people take any material from this shop. Although in this village majority of people are belong to scheduled caste and only 10 households are scheduled tribes but the village level activities not open for all. Although it is partially granted to open a shop by scheduled caste but indirectly force to close the shop. Like in Mukundapur a scheduled caste vegetable vendor, bound to close his shop in the middle of the village due to no higher caste buy any vegetable from this shop. So last seven years he sells his shop and a higher caste (belong to OBCs) buy this shop and doing the business in that place still today.

3.6 Working condition of casual labour under NREGS:

It indicates that the workers who work as casual labour in agriculture and non-agriculture Are they work under central government scheme on employment generation work like NREGS. So other than work in agriculture and non-agriculture, casual labour also works in 100 days work schemes in last year. By these employment schemes casual labour get work through government developmental work like construction of the dam, canal, digging a pond, road work etc. The successful rural employment generation programmes like MGNREGS has a

vital role in employment creation programmes in the rural areas. Many state government strengthening the duration of working days from 100 to 120 and 150 days in a financial year. The study finds that out of 668 workers in the four villages and subsumed all social groups, 543 workers response the status of job card availability and 125 workers not the response it. The availability of job card status response out of 543 workers, 315 (58 per cent) said about their working status under NREGS on the last one year, but 228 workers (42 per cent) not response about work under NREGS.

The study due to focus on casual labour so, first of all, I select the only casual labour who work in agriculture and non-agriculture on the main occupation basis. So I got out of 324 casual labour work in agriculture and non-agriculture out of total 668 workers. So I got out of 324 casual labour (i.e., work in agriculture and non-agriculture) 221 (68.2 per cent) casual labour are a response about job card availability and 103 (31.8 per cent) workers are not the response it. So out of 221 workers response about job card availability, 85 casual labour said we had worked under NREGS and 136 response that we are not work in this scheme in last year. So after that, I asked these 85 casual workers who work under NREGS about their average number of days work in NREGS scheme and wage rate during last year. The details of the percentage of casual labour access of job card and after that how much got the work under MGNREGS has been explaining in **Appendix 3.5** and **3.6**.

Table 3.25 Average number of days work in MGNREGS by casual labour in last one year

Village and social groups	Casual labour average number of days work under MGNREGS				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Kanikapada	14	13	12	-	14
Mukundapur	8	11	29	-	16
Rahania	40	7	23	13	29
Chudamani	11	-	32	12	30
All villages	23	10	27	12	21

Sources: Field Survey, 2016. MGNREGA: Mahatma Gandhi National Rural Employment Guarantee Act

The average number of days who work under the scheme has been explaining in **Table 3.25**. The average 21 days work as casual labour under the NREGS work by casual labour on an average of all village and in all social groups. In Rahania and Chudamani work under the schemes more than the other village because around 30 days work per casual labour work under the MGNREGS schemes. But in the village of Jajpur district, Kanikapada and Mukundapur around 15 days work per casual labour in this work in the duration of last year.

Among the social group's scheduled caste and other backward caste work more than the scheduled tribes and OTH. In Table 3.23, shows that around 10 days on an average work by casual labour under NREGS work by STs and OTH. Among the social groups, in Kanikapada, scheduled caste more work in this schemes than other three castes. In Mukundapur, other backward castes work the highest number of days in this schemes than the other caste i.e., 29-days work by OBCs, 11 days by STs and 8 days by SCs. In Rahania, scheduled caste casual labour work 40 days on an average in a year of NREGS work, but in this village scheduled tribes and OTH work less than other two social groups. In Chudamani, OBCs work more on NREGS work than scheduled caste and other.

The average wage rate of casual labour work under the schemes has been depicted in **Table 3.26**. Although the wage rate is determined by the government on the basis of a tropical ground of land on the different states the unique wage rate available by similar land type like all coastal belt unique wage rate was setup for the same time of work. But in the study village, casual labour said they are got different wages across the social groups.

Table 3.26 Average wage rate of casual labour work under MGNREGS

Village and social groups	Average wages (₹) of casual labour work under MGNREGS				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Caste
Kanikapada	197	200	150	-	195
Mukundapur	168	213	185	-	193
Rahania	191	143	175	190	180
Chudamani	178	-	182	176	179
All villages	195	193	180	179	187

Sources: Field Survey, 2016. MGNREGA: Mahatma Gandhi National Rural Employment Guarantee Act

The average wage rate of casual labour on an average of all village and across the social groups is Rs. 187. Among the village at Kanikapada, the wage rate higher than the other three villages. In Chudamani, all casual labour work under NREGS work gets Rs. 179 on an average wage compared to another village which is lowest among all village wage rate. Among the social groups, scheduled caste and scheduled tribes got more wage than the higher caste. In two villages of Jajpur district, where scheduled tribes got high wage rate compared to other village and among social groups. The wage rate per casual labour was more than Rs. 200 per days. The details explained in **Table 3.26**.

The state government target on the improvement of livelihood and employment generation of rural poor through the NREGA scheme directly paid to the wage earners

through Direct Benefits Transfer (DBTs). The share of fund supply between the Centre and the State is the ratio of 75:25. The state government proposed to provide Rs.1000 crore for more employment generation and for development activities like a plantation, construction of Anganwadi centres, rural housing, improvement of the canal system and farm ponds etc. So that the total spending amount during the financial year of 2016-17 nearly Rs. 2,030 crore under this schemes. The state government also proposed to create a *Corpus Fund* of Rs.300 crore to facilitate timely payment of wages under MGNREGA work. This is done due to the central government pending receipt of Central Assistance for the wage component on the cumulative process. This is a pioneering step by State Government towards ensuring timely payment of wage (Odisha Budget 2017-18 Speech).

3.7 Migration status of workers:

As per as the main occupation out of 668 workers in four villages explained in **Table 3.18**, 116 workers who are worked as seasonal migrant labour and 73 are whole year migrant labour during the study period. The seasonal migrant labour who work in a village at the time of cultivation period and rest time goes to another part of the state or outside of work. Whole year migrant who stay outside of village more than eight months or major period of time. The village wise proportion of migrant labour has mentioned also in the same **Table 3.18**. The two villages of Bhadrak districts more workers are migrated as the seasonal basis for their livelihood in compared to Jajpur districts villages. In Jajpur district, a large number of the worker goes to work like a fly board, construction work, prawn packing, to Bangalore, Chennai and Hyderabad. So this two village large number workers stay in that place and come to the village once in a year. So these type of workers in my study categories as whole year migrant labour.

As per as their main occupation as migrant labour although we find 189 migrant labour in four villages (**Table 3.18**) as per as the worker's information on the question of working status outside of village the result comes as different which is mentioned in **Table 3.27**. This discrepancy is due to when we asked the status of work as migrating work, asked all workers instead of that main occupation as migrant labours. The categorisation of migration status explains on the basis of three sections. *First*, as the household identifies on the basis of any member of family work as commuting labour. This indicates the worker goes to the nearby village and return to home in the evening. *Second* is categories as seasonal migrant labour, those are going work on the season basis and return to home on the farming

or cultivation period, they are work another place other than commuting on the seasonal basis. After work around six months again he returns to home for work in agriculture. The *third* categories migration, indicate the whole year migrant labour, mainly who are work whole over the years as a migrant labour.

The above categorisation of the type of migration as based on the number of daily work in a year. Around 154 workers not response about their working status of whether they work for a nearby village or seasonal basis or a whole year. So as per as the working status, 297 workers goto work nearby village and return to home in evening i.e., they are treated as commuting migrant labour. Around 94 workers are seasonal basis goes to work another part of the states or outside states and 83 workers worked as whole year migrant labour. The social groups wise each of the village distribution of workers has been put in **Appendix 3.7**. On the summation of all villages account, 62.7 per cent workers are work as commuting nearby village for the sake of family requirements and the rest 40 per cent as treated as seasonal and whole year migrant labour. If we analyse the village wise type of migrant labour in first village 66 per cent work as commuting labour, 15.6 and 18.3 per cent work as seasonal and whole year migrant labour respectively. In the second village, 26.2 per cent of workers as whole year migrant labour out of 132 workers in the village. Among the village in Chudamani, the proportion of commuting labour less than the compared to other three villages. Across the social groups in the on categories of labour according to migration status, scheduled caste and another backward caste more labour are work as whole year rather than seasonal and commuting among the village. The village-like Kanikapada and Rahania, maximum family young boy goes to work in Bangalore and Hyderabad. The details of the village wise across the social groups see **Appendix 3.7**.

Table 3.27 Categorisation of migrant labour in villages (in numbers)

Type of Migrant labour	Kanikapada	Mukundapur	Rahania	Chudamani	All villages
CCML (commuting migrant labour)	72 [66.1]	81 [61.4]	72 [57.1]	72 [67.3]	297 [62.7]
CSML (casual seasonal migrant labour)	17 [15.6]	16 [12.1]	33 [26.2]	28 [26.2]	94 [19.8]
CWYML (casual whole year migrant labour)	20 [18.3]	35 [26.2]	21 [16.7]	7 [6.5]	83 [17.5]
Total	109 [100]	132 [100]	126 [100]	107 [100]	474 [100]

Sources: Field Survey, 2016, Note parenthesis in column total is hundred.

The caste wise analyses of the distribution of migrant labour have been put on **Table 3.28**. From the table, we find that as casual commuting migrant labour each of the social groups was highest. The causes of migration do not find a job in the village over a time on the per day basis. Due to the dependency of family more, they have to work for maintains basic requirements. Among the social groups as proportionate to the type of migration status, the highest number of migrant workers found in scheduled caste and another backward caste. In seasonal migration also scheduled caste large number workers go for after village work complete. A large number of other backward caste goes for a whole year for the sake of family establishment outside of state other than three castes. They are mainly work in unorganised sectors. The seasonal migrant labour more found in scheduled caste but in whole year migrant cases more in other backward caste and OTH groups.

Table 3.28 Caste wise categorisation of migrant labour all villages (numbers)

Type of Migrant labour	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Others	All Castes
CCML	121 [66.85]	53 [28.15]	92 [50.00]	31 [16.00]	297 [150.00]
CSML	42 [23.2]	6 [3.2]	29 [15.6]	17 [9.0]	94 [50.0]
CWYML	18 [9.94]	5 [2.63]	46 [24.37]	14 [7.37]	83 [43.97]
Total	181 [100]	64 [100]	167 [100]	62 [100]	474 [100]

Note: Field Survey, 2016, Note parenthesis in column total is hundred.; CCML indicates: casual commuting migrant labour; CSML: casual seasonal migrant labour; and CWYML: casual whole year migrant labour

The village wise analysis of migration status of casual labour shows that people belong to living in semi-town work as more non-agricultural type work on the average day's basis. In Kanikapada villages goes by tempo for work at Jajpur town for daily basis in the offseason of cultivation period. So overall the village level analysis, maximum casual labour are working in non-agriculture after harvesting the crops in the village. So the labour migration of the districts as well as states as a major problem in the current period.

Despite the state government increase, the number of days works under NREGS, but people do not find a job. Even more than 30 per cent of the household not getting Job card till date. Although 70 per cent are getting the job card 50 per cent of household said they deposited their card in the Surpuch office or deposited in Gram Panchayat office. Only one day they have to go for withdraw of money and provide all money to the Sarpuch and only the fraction of the moneystays on their account. This way our NREGS work progress of the states as well, the government claim that we are increasing the number of daily work from

150 days to 200 days. This is the real picture of state government plans to change the livelihood pattern of rural poor and casual labour of the village.

A large number of workers work as commuting rather than seasonal in the summation of four villages as well as the social groups explain in the above table. Those who are work as commuting labour, they are also work in villages. So the average number of days work as labour in the village and outside village in a month on an average has been depicted in **Table 2.28**. Which indicate on an average worker in the village more than outside village i.e., around 12 days in the village and 7 days in outside village in a month. Each of the village analysis we find that workers more in the village than outside village. On the basis of social groups also more workers work in the village than outside village.

Table 3.29 An average number of days work by casual labour as commuting work in a month

Name of villages and social groups	Average number of days work as casual commuting migrant labour out of 30 days									
	Within villages					Outside villages				
	SCs	STs	OBCs	OTH	All	SCs	STs	OBCs	OTH	All
Kanikapada	15	16	16	10	16	5	6	5	12	6
Mukundapur	13	11	11	12	12	7	6	11	9	8
Rahania	11	10	9	12	10	7	8	8	6	7
Chudamani	10	-	10	10	10	7	-	6	5	6
All villages	12	13	11	11	12	7	6	8	7	7

Note: Field Survey, 2016,

In scheduled caste, 12 days work in the village and 7 days work in outside village out of 30 days. Although scheduled tribes marginally work more in the village but work in outside village become less than scheduled caste. Other backward castes and OTH work same days in the village out of 30 days on an average of all village calculation. Across the social groups and four villages analysis, on the range of 10 to 16 days out of 30 days work in village and 5 to 11 days range work outside of the village. As commuting work of all workers in village more days than outside village, due to people prefer to work village rather than outside. Despite the different government schemes and plain, people are migrant to search a job. On average, the percentage of commuting labouris more than the seasonal migrant and other migration categories. Instead of caste basis, on the count of overall all casual labour who work in agriculture and non-agriculture around 62.7 per cent of the workers at work in the nearby village and return to home in the evening. In the second type called seasonal migration labour, around 19.8 per cent of casual labour work under this category.

3.8 Summary of the Chapter:

In this chapter, the overall working condition of workers in villages as self-employed, casual labour, businesses and other occupation has been explained. The basic socio-economic characteristics of the households has also been discussed in this chapter. The occupational status of the households both from the income as well as employment perspectives have been discussed here. The sources of livelihoods and employment of households bring out the salient features of the economy of the villages, particularly in relation to the livelihoods profiles of the households. The study of overall livelihoods patterns of the sample households in the two districts of four villages, reveals the proportion of workers in different occupations and agrarian structure bring out the discrepancy among the social groups. The distribution of each and every indicator across the social groups reveals significant inter-group inequality in the village. The share of employment in agriculture in rural Odisha is much more than that in non-agriculture. The examination of caste-based discrimination in rural Odisha has to be contextualised with respect to the labour market and its general features.

The average size of household overall all village is 5.21, which indicate that per household more than five members. But the active worker on age groups 18 to 59 years, per household on an average was 1.67, which indicate that average workers per family is less than two members. The average household size of scheduled tribes less than other three castes household size. So the dependency burden of each village high across the social groups. The study of all village across the social group's dependency burden of each family 68 per cent. That means per household, only 32 per cent of the member are a worker and other are dependent on these 32 per cent member's income. The dependency burden is less scheduled tribes, due to they are more active to work rather than depend on the other member's income. The dependency burden of the others group is more than that of the other social groups.

In the second phase, selected dimensions of the principal occupation of workers has been analysed. The main occupation basis on employment or engagement as casual labour in agriculture and non-agriculture, out of 408 households more than 85 per cent are casual labour whose main sources or main occupation as casual agriculture or non-agricultural labour. Among the social groups, scheduled tribe people are more engaged in agriculture than other social groups in all village. A large section of worker belongs to OBCs and OTH working in non-agriculture work than agriculture work. The share of unemployed among the scheduled tribe and scheduled caste was found to be more than the higher caste of the study

villages. So major section of workers belong to scheduled caste and scheduled tribes are unemployed than a higher caste of the villages. Although the higher castes work more in non-agriculture work they work like in company job rather than labour work. So the social group's wise variation of workers engaged in agriculture and non-agriculture varies as per as the education level of workers as well as the land ownership in the villages.

In the third phase of this chapter describe the composition of the employment status of workers. The analysis of social groups wise casual labour in agriculture and non-agriculture explain that in scheduled caste out of 210 working people, 19.52 per cent are work in agriculture and 36.66 per cent work in non-agriculture and rest more than 43 per cent are work in like self-employed, migrant labour and business holders. A large section of scheduled tribe workers are casual labour in agriculture as compared to other caste-groups. Around 40 per cent of workers belong to other backward caste work as casual non-agriculture labour. The large section of workers belongs to higher caste workers working other than casual labour in agriculture and non-agriculture. Because of higher caste workers not interest to work in casual labour rather than prefer to work more informal work like a business, company job, formal sector job or operating more land profitable farming. Most of the casual labour work in the nearby village as work like agriculture related to farming but for non-agricultural work goes outside of the village. The main occupation of casual non-agricultural work, 35.5 per cent of workers work nearby village and 35.5 per cent worker working outside of Gram Panchayat (GP).

The intervention of the government through employment guarantee scheme is likely to have a significant impact on the rural labour markets. Limited investigations of the working of the MGNREGA scheme in the village suggest that participation in these schemes though vital for the labouring poor do not have a substantial impact on their livelihoods pattern. The reach of the programme is limited, as it was noticed that more than 32 per cent of casual labourers had no job card. On an average, NREGS provides 21 days of work to the labourers. The last phase of the chapter analyses the migration status of workers. As per as the categorisation of migrant labour large section of casual labourers are working through commuting rather than seasonal and permanent migration. In adequate employment opportunities within the village forces them to move out in search of work. The evidence discussed in this chapter suggest that rural livelihoods are getting diversified and increasingly labour households are looking for employment in the non-farm sector within and outside the village.

ACCESS TO LAND AND CREDIT: A SOCIAL GROUP WISE ANALYSIS

4.1 Introduction:

The access of land in rural market as an important determinant for the poor individual. It is directly linked with the status of farmer, and it is treated as main assets of the rural areas. So in the rural areas land transaction among the social groups not inter change. Land is interlinked with the other market for a longer period of time. That is strengthening the economy through the progress of different markets and emerge a balanced economy. In this economy, each of the sector and every section of people contribute their effort to nation-building. This is better performed the socialist economy rather than the capitalist. Because in the capitalist economy giant share of output or production come from some elite sector or specific groups of people income. In an economy where a large part of income comes from the majority of people's income rather than some specific, the economy is known as the egalitarian economy. Where each section of people contribute to the whole and get benefit from the economy equally. The interlinked relation among the sector strengthening the economy through the adjustment to each other. Most of the underdeveloped economy suffer from unbalanced adjustment on the progress of awhole. Some section performs better and other are weak which is pull down the overall economic growth.

The diverse and complex phenomenon of socio-economic structure of different countries performs with their own paradigm with the market interlinked transaction. So the nature of the economic transaction is different in related to the country operation. The vast literature of the interlinked transaction can be subsumed as per as the basic framework, on the two angel on analysis of market interlinked on Neoclassical cum new institutional economics and Marxist perspectives (Mishra, 2004). The unequal power relationships among the different section of the population on land ownership and operational holding isolate some section on the name of the semi-feudal structure. So the land market control by some section of people called the landlord. The characteristics of the land market on the sharecropping, tenancy, ownership and operational holding diverse as per as regional perspectives (Bhaduri, 1973). Like the land market labor market of a different region of the country control through the village or regional feudal system. The rural areas of the underdeveloped states like Odisha, land market, labour market, credit market, product market and employment determine or control through the village-based social regulation rather than economic

regulation. The operation of the above market capture by the social and economically advanced groups known as higher caste irrespective of the constitutional and state regulation. So the dominance of one group to other in rural areas spread and passes generation by generation, which is create the inequality in the society.

4.1.1 Land Ownership holding of Household: Traditionally in rural area land becomes an important asset of the people. The large landholder household treated as a rich and reputed person of the village. Land ownership of a household determines the farmer income from agriculture. Due to the family fragmentation, the land ownership of household reduce. These household become owned less and less in the generation wise family divide. So the land owned become as some fraction amount of land. So the small farmer prefers to leaseout land their land instead of cultivation. Bhaduri (1986) explains that the lower caste people do not invest more in the tiny plot of land, so they lease out their land instead of the cultivation. So the reverse tenancy emerged in the agriculture develop states like Punjab and Haryana. He also explains about the agricultural backwardness in terms of the institutional tenancy, share tenancy and exploitation of tenants. In term of the landholding in India, only 3.98% of household operates the 33.26% of total land. So in the distribution as well as the operationof the land are more discriminate among the different social groups (Sharma 1994).

The land is the main source of income of the poor people especially those are staying in the rural area. In the rural area, a large proportion of people directly depends on the agriculture for their livelihood. In Indiaone-third of the population live in the rural area. Rural areas lag behind the urban areas in almost each and every indicator of development. Development is a broader term and the economic growth is synonymous with development. Development refers to the combination of different elements, including improvement of physical and human capital, and the reduction of inequality between the rich and poor and composes the institution which deals with the providing market performance (Ray, 2012:415).

4.1.2 Land ownership across social groups in Odisha and India: The distribution of land across the social groups in the state as well as unequal to the proportion of the population. Which indicate a large portion of land stay in the hand of some landlord and larger section of farmers kept only some portion of land. This unequal distribution creates further inequality of income and assets among the social groups. In Odisha around ninety per cent of land located in rural areas (i.e., 5017.94 acres of land in rural and 568.52 acres in urban areas) and out of

total rural land owned across the social groups only 10.80 per cent owned by scheduled caste, which is lowest among the social groups. In the national level, it is more than the state figure. In India only 7.09 per cent of land owned by scheduled caste across the social groups and for Odisha it is 10.80 per cent. The higher caste belongs to other backward caste and OTH adding land owned across the social groups more than 67 per cent and for India, it is 72.79 per cent in rural areas. The scheduled tribes land owned across the social groups much better than the scheduled caste. In the national level it is 20.11 per cent and for Odisha 22.09 per cent in rural areas. The details of the land owned across the social groups have been explaining in **Table 4.1**.

Table 4.1 Percentage of land owned by social groups in Odisha and India in 2011-12

Name	Sectors	ST	SC	OBC	OTH	ALL
Odisha	Rural	22.09	10.8	41.44	25.67	100
	Urban	14.78	14.64	27.53	43.05	100
	Total	21.35	11.19	40.02	27.44	100
India	Rural	20.11	7.09	39.25	33.54	100
	Urban	16.17	5.21	35.66	42.95	100
	Total	19.6	6.85	38.79	34.76	100

Sources: Unit level data, 2011-12; Level-2, 68th NNSO.

4.1.3 Average Land owned per household across social groups in Odisha and India: The average area of land ownership among the social groups in rural, urban and total depicted in **Table 4.2**. The average land owned per household in Odisha 1.56 acre, but for in rural, it is 1.76 acre and 0.77 acres. The rural areas average land ownership is more due to more than 85 per cent of people live in rural areas in the state. Among the social groups average land ownership in rural areas more found in higher caste rather than scheduled caste. The lowest land owned by the social groups in Odisha 1.01 acre which is come under the scheduled caste.

Table 4.2 Social groups wise Average land ownership (in acres) of India and Odisha in 2011-12

Name of State	Sectors	ST	SC	OBC	OTH	ALL
Odisha	Rural	1.74	1.01	1.93	2.19	1.76
	Urban	1.11	0.55	0.69	0.87	0.77
	Total	1.67	0.91	1.71	1.77	1.56
India	Rural	0.78	0.92	2.19	2.78	2.21
	Urban	1.12	0.24	0.56	0.64	0.6
	Total	2.33	0.72	1.63	1.81	1.64

Sources: Unit level data, 2011-12; Level-2, 68th NNSO.

In the state scheduled tribes population far better than scheduled caste on the land ownership. Among the social groups, OTH groups average land ownership more than 2 acres whereas for OBCs it is 1.93 acre, 1.74 for scheduled tribes. In the national level although scheduled tribes average land owned less than the state higher caste belong to OBCs and OTH groups average land owned much higher than the state i.e., 2.78 acres for OTH and 2.19 acre for OBCs. The scheduled caste and scheduled tribes average land owned much less than the all India level in rural areas. Taking the all caste in rural areas average land ownership among scheduled tribe 0.78 acres and for scheduled caste, it is 0.92 acre. So in India the average land owned per household among the all social groups less than the Odisha. The details of the average land ownership have been mentioned in **Table 4.2**.

4.1.4 District wise land ownership and Average Land owned across social groups: After the analysis of state and national level land distribution and average land owned per household across the social groups, the district level explanation has been put in **Table 4.3**. The percentage of land ownership across the social groups of the coastal district more concentrated to the higher caste rather than the southern and western part. In the western part, most of the scheduled tribes had owned more land earlier period but on the name of the development, state government established various plant and project in the tribal hilly areas, so the land owned per household slowly fall. Across the districts except for Balasore, Bhadrak, and Jajpur all districts scheduled caste percentage of land owned less than 10 per cent of the total land of the districts. These districts proportion of population across the social groups in total district population also more than the total population. These districts one-fourth of the population belong to scheduled caste but the land ownership less than 15 per cent out of the total. In Puri district more than 97 per cent of land owned by the OTH caste and OBCs caste, where the proportion of population across the social groups is 78.99 per cent higher caste (including OBCs), 20.71 per cent scheduled caste and 0.31 per cent of scheduled tribes¹.

So 20.71 per cent of district population only owned 1.69 per cent of the total land, which indicates the land distribution of the Puri only capture by the higher caste. The large section of scheduled caste population is landless and work as casual labour rather than the cultivation of land. Not only the unequal distribution of land in Puri only but also in Nayagarh, Kendrapada, Jajpur, Jagatsinghpur, and Bhadrak. Due to the unequal distribution of land ownership among the social groups, a large section of scheduled caste population are

¹The details proportion of population across social groups put in **Appendix 3.1**.

landless and bound to work as migrant labour in outside state rather than work in the village. In Bhadrak, Kendrapada, and Cuttack the land owned among the scheduled tribes is zero but some tribal also lives. Maybe the data is not able to cover this tribal located area or they have not owned any land in the district distribution of land ownership.

The average area of land ownership of the coastal districts also put in same **Table 4.3**, where the proportion of land ownership has been discussed. The average land owned per household for Odisha 1.76 acre for rural areas than the 0.77 acres and 1.56 acre for urban and total respectively. First of scheduled tribes cases, average land owned analysis. The two district of the coastal belt of Odisha, Jagatsinghpur, and Nayagarh where scheduled tribes average land ownership more than 2 acres per household. In Jajpur only 0.12 acre of land owned per household, whereas in Khurdha and Puri it is 0.12 acre and 0.20 acre respectively. In the second group's scheduled caste household owned less than scheduled tribe land ownership. Among all districts of the coastal Odisha no one scheduled caste household more than one acre of land. Which indicate that scheduled caste household average land ownership less and so larger number of casual labour out of total population comes from scheduled caste population. Out of nine districts four districts average land ownership more than half-acre but less than one acre. The rest five districts average land owned by scheduled caste less than half-acre i.e., in Puri 0.2 acre, Kendrapada 0.31 acre, Nayagarh 0.40 acre, Khurdha 0.42 acre and Cuttack 0.50 acre. The details of the district wise explanations see **Table 4.3**.

Table 4.3 Percentage of Total land owned and average land ownership across the social groups of coastal districts of rural Odisha in 2011-12

Name of Districts	Percentage of Landownership across social groups				The average area of land owned per household (an acre)				
	ST	SC	OBC	OTH	ST	SC	OBC	OTH	ALL
Balasore	3.82	18.38	38.84	38.97	1.3	0.84	1.41	1.84	1.36
Bhadrak	0	14.73	46.3	38.97	-	0.87	1.8	2.05	1.62
Kendrapada	0	4.16	75.04	20.79	-	0.31	1.92	1.32	1.47
Jagatsinghpur	3.7	5.01	29.88	61.41	2.54	0.53	1.03	2.56	1.56
Cuttack	0	7.61	26.85	65.55	-	0.5	0.81	1.82	1.19
Jajpur	0.11	10.03	32.23	57.64	0.11	0.59	2	2.01	1.59
Nayagarh	36.33	4.99	15.98	42.7	2.91	0.4	0.53	1.54	1.2
Khurdha	0.98	8.52	28.95	61.55	0.12	0.42	1.22	1.9	1.19
Puri	0.31	1.69	25.8	72.21	0.2	0.2	1.45	1.94	1.54
Odisha	22.09	10.8	41.44	25.67	1.74	1.01	1.93	2.19	1.76

Sources: Unit level data, 2011-12; Level-2, 68th NNSO. Note: Summation of across social groups indicate hundred per cent. for Urban and Total see **Appendix 4.1 & 4.2**.

In the third groups, other backward caste average land ownership except for Nayagarh and Cuttack all coastal districts more than one acre. In Jajpur, Kendrapada, and Bhadrak around 2acre average land owned by other backward caste which is near to state average land ownership of this groups. So from the land ownership among the districts not much difference within other backward caste except Cuttack and Nayagarh. On the last groups, OTH average land ownership 2.19 acre per household. Three district Jagatsinghpur, Bhadrak and Jajpur average land owned by OTH much higher than the other district of the state. Except for Kendrapada and Nayagarh average land ownership per household more or less around 2 acres. Across the social groups and among all districts analysis the average land ownership by scheduled caste stay in the bottom and then scheduled tribes and the higher caste. In the comparative analysis of village wise across social groups more inequality in Puri, Kendrapada, Khurdha, and Jagatsinghpur. Because as per as proportion of district population the average land owned per household is less among the particular caste of scheduled caste than other higher caste. On the taking of all caste in average land owned per household more than one acre. Among that the districts like Bhadrak, Jajpur, Jagatsinghpur, and Puri average land ownership 1.62 acres, 1.59 acre, 1.56 acre and 1.54 acre respectively. So in the coastal belt of Odisha average land ownership, more than another part of the state but the inequality among the social groups exist more among the districts.

4.2 Land ownership in study villages: The study of four villages in two coastal districts more than four hundreds households information found that land owned categories in two section: owned homestead land with patta and without patta, owned agriculture land with patta and without patta². Out of 408 households except 29 households, all household has more or less homestead land which has legal documents. These 29 households havestayed in the land of encroached land and stay in this homestead land by the longer period of time. Among these 29 landless homestead land household 19households belong to Kanikapada village and six household from Rahania and four households from Mukundapur. Across the social groups, 21 households belong to a scheduled caste, four belong to other backward caste, three belong to scheduled tribes and only one from OTH caste out of 29 landless homestead land with patta household. In Chudamani all household has homestead land with patta. Across the village in Kanikapada highest (17 HHs out of 19 HHs) number of scheduled caste household belong to landless homestead land (**Appendix 4.3**).

²Patta means the record prove of land owned by whom or legal document for ownership. In the local language called *patta* or *dalil*.

In another hand, we found that 45 households out of total household in the four villages owned some homestead without patta. That indicates that which earlier which has no recorded homestead land they owned some land unrecorded land with adding more 16 households who also owned without patta homestead land. That means 363 households response that they are not owned any unrecorded homestead land out of 408 total households information. Out of this 45 household who are holding some unrecorded land 29 households belong to a scheduled caste, 7 households belong to OTH, 6 households belong to OBCs and only 3 households of scheduled tribes. Across the village highest number of the household come from Kanikapada, followed by Rahania and Mukundapur i.e., 23 households from Kanikapada, 14 households from Rahania, 6 households from Mukundapur and only 2 households from Chudamani. For more details see the **Appendix 4.3**. The village wise analysis shows that in Kanikapada, 23 households who owned government land for homestead purpose among them 19 has no any homestead land with patta. Like in village Mukundapur, out of 6 households who owned unrecorded land among them 4 households has no any homestead land with patta, like in Rahania it is 14 households who owned some unrecorded homestead land among them 6 households are landless homestead with patta. In Chudamani, all household is more or less owned recorded homestead land with 2 households said they also owned some unrecorded homestead land in the current period. The details of the village wise across social groups have been put in **Appendix 4.3**.

The study of analysis agricultural land in four villages found that 167 (40.93 per cent households) households out of 408 households have no any agricultural land with patta depicted in **Table 4.4**. That means they are landless in agricultural land holding. They have not owned any recorded land for agricultural purpose. land ownership If we analysis village wise, in Kanikapada 70 households out of 100 sample households has no any agricultural land (recorded or patta) for cultivation which is highest among the village. Like the Kanikapada, in Mukundapur 40 households, in Chudamani 31 households and Rahania 26 household not owned any agricultural land (recorded) for agriculture purpose. Across the social groups, 67 households come under scheduled caste, 48 households belong to scheduled tribes, 41 households belong to other backward castes and only 11 households are OTH groups not owned any agricultural land (recorded or patta) out of total 408 sample (for more details see **Table 4.4**).

But one interesting thing is that out of 408 sample only 8 households who owned some agricultural land which has no record or patta. That means although 40 per cent of the household not owned any agricultural land out of 408 sample among the 167 landless

agricultural land household, only 8 households owned some unrecorded land for agricultural purpose nearby village. So only 8 households out total sample household cultivate or operated some agricultural land which is unrecorded. These household most of them belong to Brahmin households because as per as their views that although we cultivate these land it is on the name of Goddess land (*called Thakura Land*). We cannot able to sell this land to other due to that is not recorded in our name. So this type of households finds in Mukundapur and some Rahania village in the study of two districts.

Table 4.4 Distribution of agricultural landless households

Village name	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	29	26	16	0	70
Mukundapur	12	14	12	2	40
Rahania	12	8	8	3	31
Chudamani	15	0	5	6	26
Total	67	48	41	11	167

Sources: Field Survey, 2016; Note: Those household have no patta or record on agricultural land owned.

If we analysis the only agricultural land owned or ownership among the village and across the social groups we found that 240 households owned total 161.24 acres of agriculture land owned out of 408 households because 167 households not owned any agriculture land mentioned in **Table 4.4**. **Table 4.5** indicates that both village and social groups wise agriculture land owned and its average and total (include both agriculture and homestead land) land owned by the village and social groups.

First, we analyzed the agriculture land, whereas village wise average land owned on taking in total only 0.67 acres per households. In Kanikapada, average agriculture land owned 1.15 acre which is highest among all village, because in Kanikapada only 30 households owned agricultural land and 70 households are landless agriculture land. After the Kanikapada, Mukundapur average agriculture land owned 0.76 acres followed by Chudamani 0.56 acre and 0.51 acre for Rahania. On average all the village average agriculture land owned less than one acre per household instead of Kanikapada village. In the social group's wise agriculture land owned by scheduled caste 41.88 acres out of total land in four villages. If we see in the per centage form scheduled caste owned only 25.97 per cent of total agriculture land. But the OBCs and OTH caste proportion of land owned 36.01 per cent and 35.28 per cent respectively. Whereas only 2.72 per cent of agriculture land owned by scheduled tribes from total agricultural land. So more than 70 per cent of agricultural land owned by higher caste and 30 per cent by the scheduled caste and scheduled tribes. The average agriculture land owned by scheduled caste 0.48 acre and for scheduled tribes

0.88 acres on an average of taking all villages. On the other hand for the OTH caste 1.24 acre of land owned per household and it is for OBCs only 0.57 acre. The village wise among the social groups owned agriculture land (only which has patta) and its average per households has been put in **Appendix 4.4** and **4.5**.

Secondly if we analysis on taking both agriculture and homestead land for land ownership we find that 191.46-acre land owned by 408 households in the four villages. From this, we find that 30.22 acre of land which is homestead land in the four villages. In Mukundapur land owned more than the other three villages on taking of the absolute land owned by all households. The average land owned by the village we find 0.47 acre of land owned by per households taking all village in average which is lower than the agriculture land average i.e., 0.67 acre. Because in agriculture we calculate the average by taking only 240 households who are owned agriculture land but in both agriculture and homestead land measure cases we count at a time so it reduces the average land due to it is calculated from all households.

Table 4.5 Village and social groups wise total land ownership (in acre)

Across the village and social groups	Name of village and Caste	Only agriculture Land (an acre)		Both agriculture and homestead land (an acre)	
		Total land	Average land	Total land	Average land
Village wise	Kanikapada	33.38	1.15	38.13	0.38
	Mukundapur	48.84	0.76	61.09	0.59
	Rahania	36.24	0.51	42.02	0.41
	Chudamani	42.78	0.56	50.22	0.49
	Total	161.24	0.67	191.46	0.47
Social groups wise	SCs	41.88	0.48	51.49	0.33
	STs	4.40	0.88	7.17	0.13
	OBCs	58.07	0.57	66.12	0.46
	OTH	56.89	1.24	66.68	1.17
	ALL	161.24	0.67	191.46	0.47

Sources: Field Survey, 2016. Note: All are measured in acre. When we calculate the average it excludes the landless households from the total sample. Average land owned calculate by taking only the households who have agricultural land and for an average of both agriculture and homestead taking all households i.e., for agriculture average calculate exclude these 8 HHs who say they have no any agricultural land and for both agriculture and homestead taking all HHs.

In Mukundapur 0.59 acre of land owned by per households which is higher than the all village average like in Chudamani 0.49 acre, in Rahania 0.41 acre and in Kanikapada 0.38 acre of land owned per household. In the analysis of social groups 26.89 per cent of land owned by scheduled caste, 34.53 per cent and 34.82 per cent by other backward castes and OTH respectively depicted in **Table 4.5**. Only 3.74 per cent of land owned by the scheduled tribes out of total land owned in the four villages. So like only taking agriculture land, in

both agriculture and homestead land larger per centage of land owned by the higher caste across the social groups. If we see the average land owned per households we found that 1.17 acre of land owned by OTH which is higher than the other social groups. Except for OTH caste, all three groups called other backward caste, scheduled caste and scheduled tribes average land ownership is 0.46 acre, 0.33 acre, and 0.13 acre respectively. The scheduled tribes average land ownership is 0.13 acre which is less than 0.88 acre on only agriculture land average. So among the social groups, scheduled tribes are in the bottom and then scheduled caste on average land owned by the social group's strata.

4.2.1 Inequality of Landownership across social groups: As per as the analysis of land ownership across the social groups of coastal districts of Odisha in rural areas analysis, most of the villages scheduled caste and scheduled tribes land owned less in compared to a higher caste. So the concentration of land owned by some people who are dominant class of the society. It is not the problem in Odisha but it is found in another state of the country. Due to this unequal distribution of land owned various state government step taken for equal distribution of land among the social groups. In **Table 4.6**, the distribution of land owned in the study village has been presented according to the social groups. The first village, Kanikapada, the well-developed states and it is nearer to town Mangalpur. The village lowest land concentrated by the scheduled caste than other social groups. Only 6.27 per cent of land owned by scheduled caste out of the total 38.13 acres of land owned³ by the village.

Table 4.6 Percentage of total land owned across social groups

Name of villages	Per centage of Landownership across social groups				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	6.27	9.65	13.45	70.65	100.00
Mukundapur	18.04	5.17	28.84	47.95	100.00
Rahania	51.74	0.79	38.74	8.76	100.00
Chudamani	32.54	-	53.96	13.50	100.00
All Village	26.89	3.75	34.54	34.83	100.00

Sources: Field Survey, 2016.

The land owned by this village around 71 per cent by the OTH caste groups. If the OBC groups we add to the higher caste categories it becomes around 84 per cent of total land owned by the village. That means only 16 per cent of land owned by the scheduled caste and scheduled tribes household of the village. In the second village, Mukundapur, the share of

³ See for village wise total land owned of the two district of four village in **Appendix 4.6**. This land owned include both homestead land and agricultural land by the household.

land owned moderate than another caste. But still, the more land owned by the OBC and General caste household. In the absolute figure, if we see the village scheduled caste only owned 11.06 acre of land and it is in the case of scheduled tribes only 3.12 acre of land. Out of 61.09 acres of village total land owned OBC and General caste owned 46.91 acre of land, which is 76.79 per cent of the total land. In the third village, which is in Bhadrak district and represented as highest land owned out of total land other than other social groups. Around 54 per cent of land owned by the scheduled caste household and scheduled caste owned very negligence amount of land owned. In this village, second position capture by the OBC caste on land owned out of the total land and third position get the OTH caste household. So in this village, the land owned by scheduled caste household is highest among the four villages of my study. The fourth village of my study is Chudamani, which is nearer to the Bay of Bengal near to Dhamra port. The village main occupation is to fishing off allcaste. The cultivation of land varies according to the location of land. Because if the land nearer to sea, they are using this land for the purpose of fish breeding, in a regional language called *Gherry*. The rich land owned farmer engaged in this prawn fish breeding process in the time of Kharif season. So the land ownership among the all social groups uses as other than crops cultivation.

The village wise and social group wise total land ownership inequality measured by the Gini Coefficient (GC). This is describe in the given **Table 4.7**. From this table we can say that among the social groups land inequality more scheduled tribe and other as compared to scheduled caste and other backward caste. This is due to among the scheduled caste households has no much land or landless and those have less than half acre on an average so the inequality not much more among the scheduled caste households. Like in the OBCs caste although the average land ownership per household more but among them inequality is less. In the other hand village wise inequality of ownership found more in Kanikapada, because in that village maximum households are landless and those have land leased-out to other for the cultivation. The large percentage of land in the village cultivate by the scheduled caste and scheduled tribe by the leasing in the share cropping. In Rahania, also some households holds more than two to three acre of land but some other are less than 0.25 acre land. It is the summation of both agriculture as well as home stead land. The average land ownership of the village 0.51 acre but the inequality in the village more as compared to other study village. In Chudamani although inequality less comparative to Rahania and Kanikapada, but it is more than the Mukundapur. Like the village, social groups wise land inequality also founds among the social groups in study villages.

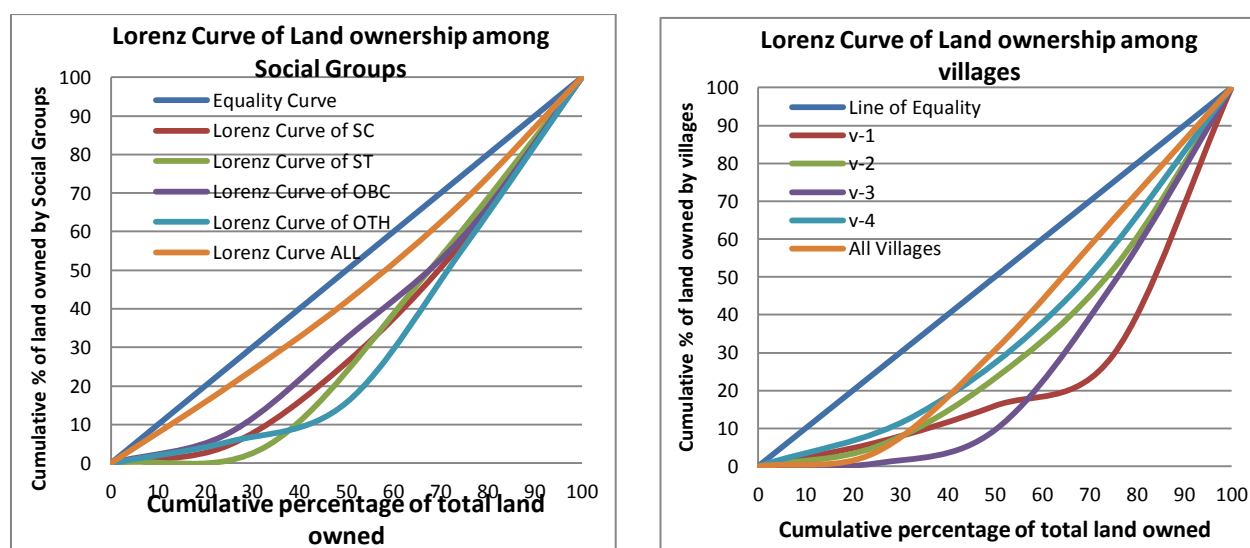
Table 4.7 Village and Social group wise Gini coefficient of land in study villages

Village Name	GC among the villages	Caste Name	GC among the social groups
Kanikapada	0.3205	SCs	0.0211
Mukundapur	0.1322	STs	0.1294
Rahania	0.3061	OBCs	0.0660
Chudamani	0.1928	OTH	0.4166

Sources: Field survey, 2016-17

The village wise and social groups wise shown by Lorenz curve in the Fig. 4.1. It is describe that large percentage of total land concentrated in the some section of people in the village as well as across the social groups.

Fig. 4.1: Lorenz curve of total land ownership among the villages and social groups



Sources: Field Survey, 2016. Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania) and V-4 (Chudamani)

So the gini coefficient value among the social groups of OTH caste indicate large inequality and scheduled caste less inequality. In the village distribution of land ownership more unequal in Mukundapur than the other villages.

4.2.2 Village wise average area of Land Owned/ownership: It indicates the household average land owned per family according to the permanent heritable possessed or owned in the long term as possessed. The average land owned calculate on the taking of both agricultural land and homestead land of the household. The average of land owned by per

household in village Kanikapada is 0.08 acre, which is equal to only eight decimal or two guntho⁴. This measurement of land owned by the household indicate in the small measurement unit for that they have owned a tiny plot of land for the homestead as well as cultivation. Other than three castes of the village scheduled caste land owned is very small. Although in the village average land owned is around 0.38 acre but only OTH caste owed more than the average area of land owned. In this village, OTH caste owned around 2.24 acre of land owned per household, which is highest all over all village and all caste of my four village survey. In the second village, Mukundapur, where the average land owned is around 0.59 acre of land, in this village scheduled caste owned less amount of land owned than other three castes. Scheduled caste occupied in the second position of average land owned by the village. Only OTH caste land owned more than village average land owned. In the third village, Rahania which belongs to the Bhadrak district.

The average area of only agriculture land per household has been put in **Table 4.8**. Out of 408 households only 240 household response that they are owned more or less some agriculture land for cultivation purpose. That means around 38 per cent of the household not owned any agriculture land. They are cultivated by either leasing-in land or not cultivate in the current period. The average agriculture land per household 0.67 acres taking in all village and social groups.

Table 4.8 Average area of agricultural land owned per household (an acre)

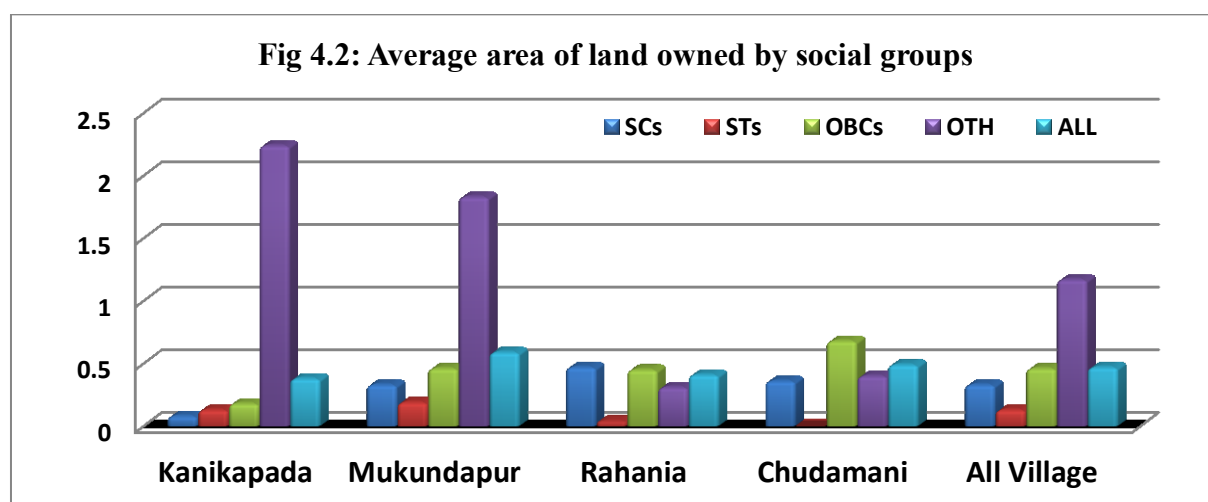
Name of villages	Village wise and social groups wise average agricultural land owned				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	0.30	1.25	0.34	2.15	1.15
Mukundapur	0.41	0.63	0.59	1.63	0.76
Rahania	0.58	-	0.48	0.36	0.51
Chudamani	0.43	-	0.71	0.45	0.56
All Village	0.48	0.88	0.57	1.24	0.67

Sources: Field Survey, 2016, Note: It is only agricultural land owned average with patta) For average calculation taking only 240 HHs who are owned agricultural land with patta only.

The village wise in Kanikapada, 1.15-acre agriculture land owned by per household followed by Mukundapur, Chudamani and Rahania 0.76 acre, 0.56 acre and 0.51 acre respectively. In the social group's basis scheduled caste in the bottom i.e., 0.48-acre agriculture land owned by per households, whereas other backward caste owned 0.57 acre and scheduled tribes 0.88

⁴The measurement of the land in the village treated as either decimal or Guntho. One hundred decimal equal to one acre or One acre equal to 25 guntho. One guntho equal to 4 decimal or 16 Birsa or 10 Kodi. In village areas people are express the land holding on the above format, which is very small amount or tiny plot.

acres and OTH it is 1.24 acre. Among the scheduled caste all village average agriculture land owned less than half an acre in all villages except Rahania, where scheduled owned 0.58-acre agriculture land. If we analysis all caste, scheduled caste on average stay bottom on the agricultural land owned explained in **Table 4.8**. The total land owned by agriculture as well as homestead land in four villages is 191.45 acre. The village wise share put in **Appendix 4.6**. If we see in the social groups wise proportionate share of scheduled tribes less than other three castes. Around 27 per cent land owned by scheduled caste followed by equally both OBCs and OTH. The higher caste owned more than 70 per cent of total land owned in the four villages. The average land owned per household has been put in **Fig 4.2**. Out of all village in the study, only in village Rahania scheduled caste average land owned is more than the other village. It is around 0.47 acre of land per family. On an average, the overall household of the study of four village average land owned is less than half an acre except OTH caste. In an analysis of all caste, only OTH caste belong to Kanikapada and Mukundapur average land owned 2.24 acre and 1.83-acre land respectively.



Sources: Field Survey, 2016, Note: It is total land owned average (agriculture plus homestead with patta and without patta).

On the all village study of social caste wise land ownership scheduled tribes household very less amount of land owned than the scheduled caste also. Whereas the scheduled caste owned 0.33 acre, scheduled tribes owned 0.13 acre and OBC and OTH caste owned on an average 0.44 and 1.17 acre of land respectively. In two village of Jajpur district, OTH caste owned 2.24 acre and 1.83 acres of land, which is highest in the study of four villages in all caste groups as well as in all village. The average area of land owned count on the two way: (a) including landless household and other is (b) excluding landless household. The above **Fig 4.2** include the landless labour. So the average area of land owned will be

increased if we exclude the landless labour from the average of the land owned count. An overall study of the average area of land owned per household is less in the states as well as the Agricultural census of Government of India.

4.2.3 Leasing-in Land: Those has no agriculture land they are taking land for cultivation from the higher caste by the leasing-in ways which are in terms of different tenancy. Out of 408 sample household 213 households not leasing-in any land in last season. Those are leasing-in (195 HHs) village wise and social groups wise to put in **Appendix 4.7**. In Kanikapada out of 100 sample only 30 households leasing-in land and rest 70 not leasing in any land for cultivation. In other three villages more than half of the household leasing-in land. But if we see among the village wise scheduled caste leasing-in land 93 household cultivate by leasing-in land. The total leasing-in land by 195 households around 255.59acre land which is more than owned land by total households in the four villages. The proportion of leasing-in by social groups indicate that 44.52 per cent leasing-in land cultivate by scheduled caste, followed by other backward castes 33.68 per cent, scheduled tribes 12.18 per cent and only 9.60 per cent by OTH. From this, we can say they large section of scheduled caste are depend on their livelihood through the leasing-in land. Because they are agriculture landless household. The average leasing-in land for all villages and among all social groups more than one acre. The village and social groups basis average leasing-in land more explain in **Appendix 4.7**.

4.2.4 Leasing-out Land: The household who are not interested in farming they are leased out their land rather than keeping unproductive. Out of total sample 60 household leased-out the land in the previous season. Among them, 33 households belong to OBCs and 13 households are OTH caste. So only 14 households belong to scheduled caste and scheduled tribes who are leased-out land. Because most of the scheduled caste and scheduled tribes are landless or marginal, so they cultivate the tiny plot of land rather than leasing-in this. The total leasing-out land in four villages 57.31 acres out of this higher caste leased-out 90 per cent land and only 10 per cent by both of SCs/STs. Around 27.45 acres of land leased-out from the Kanikapada village followed by Mukundapur, Chudamani and Rahania village for details see **Appendix 4.8**. The average leased-out land by OTH caste more than 2.5 acreswhereas it is less than half-acre among scheduled caste and scheduled tribes and slightly higher than half an acre by other backward castes. In Kanikapada and Mukundapur average leased-out more than one acre but in other two villages belong to Bhadrak district less than half an acre.

4.2.5 Land Ownership across the size classes: The household land ownership will determine the household belong to which class. Which is indicate the farmer Considering the country as a whole, the large and medium ownership of land holdings owned more than half of the total land of the country. An increasing trend in the per centage of the area owned by marginal households is also observed in all the major states country. Both in the magnitude and direction is observed in the small and semi-medium size class of the inter-state variation. In the present the per centage of small land owned household fall in all the states, but the per centage of area under small holding increase over some states. The impact of population growth has major evident for the temporal variations in the pattern of distribution of ownership holdings and area across the size class observed in all the major States. But in some north-east states, the average area of land owned is very less and the landless increase over the period. In Odisha the land owned distribution is varies according to the social groups and in the coastal belt of Odisha, the land ownership is more unequal than other part of the state. As per as the size class of land owned if we see, the village of land owned is very small according to the unit measurement of hectares. So I categories on the basis of availability of land ownership of the four villages of two districts. It is divided into five categories as per as the villagers response to land owned.

The six broad size classes⁵ of landholdings or ownership are as follows:

Landlessness	less than 0.010acres (i.e., range 0.00 to 0.010 acre)
marginal	more than 0.011 but less than 1.000 acres
small	more than 1.001acres but less than 2.000acres
medium	more than 2.001acres but less than 4.000 acres
large	more than 4.001 acres

As per as the above categories of land ownership of household explain in **Table4.9**. From the total sample of 408 households, 40 per cent are not owned any agricultural land. So these household are called landless household. After that the rest 240 households owned more or less agriculture land, but if we categories across the size class near landless or less than 0.010 acres more landless agricultural households emerges. But due to we calculate land ownership by adding with homestead land, more or less all sample household owned some land in all villages. So the landless household not found in all villages across the social groups as well as villages. As per as the above categorization landless size class on the range of fewer than

⁵ As per as NSSO categorisation of size class, all are measure in hectares but in my study due to not owned more land so it is convert to acre and landless define as who owned no land or less than 0.002 hectares (equal to 0.004 acres) termed as landless but in my study landless as owned less than 0.010 acre land (NSSO)

0.010 acres, found 18 households who are called landless. More than 82 per cent (338 hhs) of household owned less than one acre of land⁶, and on the range of one acre to two acres, 8.3 per cent (34 hhs) of households come and more than 2 acres only 4.5 per cent out of 408 sample households. So only 12.8 per cent of households owned more than one acre of land out of total sample.

Table 4.9 Distribution of households across size class among social groups and villages (in per cent)

Social groups and Villages	Social groups wise HHs across the size class					Total
	Landless (less than 0.010)	Marginal (0.011-1.000)	Small (1.001-2.000)	Medium (2.001-4.000)	Large (4.001+)	
SCs	5.20	89.00	3.90	1.90	-	100
STs	5.60	88.90	5.60	-	-	100
OBCs	4.90	81.10	10.50	2.80	0.70	100
GEN	-	64.90	17.50	5.30	12.30	100
ALL	4.40	82.80	8.30	2.50	2.00	100
Villages	Village wise HHs across the size class					
Kanikapada	6.00	86.00	3.00	1.00	4.00	100
Mukundapur	4.80	76.00	12.50	3.80	2.90	100
Rahania	2.00	86.30	8.80	2.90	-	100
Chudamani	4.90	83.30	8.80	2.00	1.00	100
All villages	4.40	82.80	8.30	2.50	2.00	100

Sources: Field Survey, 2016, For the Absolute figure see *Appendix 4.9*.

Firstly in the social groups, wise distribution of households across the size class will be analyzed. Taking all social groups 4.40 per cent of households are landless, 82.80 per cent are marginal and 8.30 per cent are small households. According to size class, the household belongs different social groups varies as per as the demographic structure of the sample. Some of the higher castes denied expressing the original land owned by himself. But it is true that they must own more land than another caste in the village. Basically, these higher caste landowner does not cultivate the land, they are lease out the land to a landless and marginal farmer instead of farming. Because the higher caste people are engaged in non-farm sector work and some are migrated to neighbor states, so they leased-out instead of cultivation⁷.

⁶ This land owned include both homestead land and agricultural land. Which summation of both documented or record produced land called *Patta* and owner like possession under long term lease or the assignment is also considered as land owned.

⁷ Some higher caste like Brahmin at village of Kanikapada, work in Kolkata as an Casual labour like providing per day morning flower and lemon in the shop of Howrah city of Kolkata. They are stay 15 days and return to home and next fifteen of the moth this work done by other person, who are belong to his village. So the higher caste people are prefer to work as labour instead of cultivation of own land. In another village of the same district of Jajpur, I found that the higher caste are prefer to kept his land uncultivated instead of leasing-in.

Except for OTH caste, all three groups more than 80 per cent of households come under the range of less than one acre of land ownership. Conversely, in the range of one acre to 2 acres, less than 6 per cent scheduled caste and scheduled tribes households owned but for the OBCs and OTH, it is 10.50 per cent and 17.50 per cent in this category respectively. More than 4 acres land owned household in four villages belong to SCs/STs not available out of 208 SCs/STs households.

Table 4.10 Total land owned across the size class among social groups and villages (in per cent)

Social groups and Villages	Social groups wise land owned across the size class					Total
	Landless (less than 0.010)	Marginal (0.011-1.000)	Small (1.001-2.000)	Medium (2.001-4.000)	Large (4.001+)	
SCs	0.16	73.20	13.94	12.72	-	100
STs	0.42	39.14	60.45	-	-	100
OBCs	0.11	51.12	27.89	13.79	7.11	100
OTH	-	19.44	16.62	13.03	50.91	100
ALL	0.09	45.57	21.43	12.72	20.19	100
Villages	Village wise land owned across the size class					
Kanikapada	0.16	30.39	9.83	8.36	51.26	100
Mukundapur	0.08	35.73	24.24	16.37	23.57	100
Rahania	0.05	58.78	25.58	15.59	-	100
Chudamani	0.10	58.00	23.34	9.20	9.36	100
All villages	0.09	45.57	21.43	12.72	20.19	100

Sources: Field Survey, 2016, Note: This is the per centage of land owned in acre by HHs from agriculture and homestead land from both patta and without patta. For Absolute land owned across the size class see **Appendix 4.10**.

Secondly, we analyzed more than 82 per cent of households are marginal and around 5 per cent are landless households. Only 8.30 per cent of the household are small and 2.50 per cent of households owned more than 2 acres of land. All village except Mukundapur, more than 80 per cent of households are marginal i.e., owned less than one acre of land. But in Mukundapur 12.50 per cent of households owned more than one acre of land but less than 2 acre, which is the highest per centage on the distribution of households across the size class. In Kanikapada and Mukundapur we find 4.00 per cent and 2.90 per cent of household belong to medium and large size class of ownership holding.

On the analysis of **Table 4.9**, on taking all villages and social groups large section of the household come under the marginal category i.e., less than one-acre land ownership which includes two categories of land like from homestead land with patta and without patta and agricultural land with patta and without patta. The social groups and village wise land owned

Because the measuring of crop sharing among the land owner and cultivator has some unsatisfied measurement process. So the higher caste bound to keep in uncultivated rather than leased-out.

in four villages across the size class has been explaining in **Table 4.10**. Which indicate that the large section of land under marginal than the other size classes.

Land owned indicate the ownership of land find the hereditary ways from generation to generation. Due to today joint family not much more exist, so the land ownership divide among the member of the family as per as family fragmenting. So the land ownership of households slowly reduced. The agricultural land becomes today homestead land for the shortage of homestead land in the rural areas. Total land owned by the four villages including homestead land and agricultural land summation of recorded and unrecorded land is 191.46 acre. Across the social groups absolute land owned by scheduled tribe only 7.18 acre out of the total land. This indicates that the land owned by scheduled tribes is only 3.75 per cent out of total land owned in four villages. On the other hand scheduled caste owned 51.49 acres, other backward caste 66.12 acres and OTH caste owned 66.68 acres. On the village wise land owned we find Mukundapur highest and Kanikapada lowest compared to four villages. The proportionate of land owned across the size class put in **Table 4.10**. reveal that around half of the total sample households owned less than one acre of land, whereas for small 21.43 per cent. In four village out of total 408 sample household more than two-acre land owned households not found among the scheduled tribes and for more than four-acre no one in both the scheduled caste and scheduled tribes. More than 73 per cent of households are marginal land owned households across the size class, that is highest among the social groups. Across the size class scheduled caste 40 per cent land owned under the marginal and rest 60 per cent come under small land ownership out of total 7.18 acre land. Half of the land owned under marginal size class by other backward caste across the size class of land ownership. On the OTH caste less than 20 per cent land owned under marginal which is lowest among the social groups. More than 50 per cent of land owned come under the large land size class across the size class. So from this, we find that half of the land owned by OTH caste come under more than four acre.

Among the village Kanikapada, half of the land owned more than 4 acre which is highest among the four villages. In Rahania and Chudamani more or less around 60 per cent of land ownership come under the marginal size class and for small land size for both villages more or less than 25 per cent. In Mukundapur land distribution across the size, the class is better than the other three villages due to land ownership not concentrated in any one particular size class rather than it is distributed across the size class. Around 36 per cent of

land owned by this village less than one acre ownership followed by the size class of marginal, large and medium.

4.3 Operational holding of Households: The operational holding also called as land possessed, which include the total land operated in the reference period of time from owned, leased-in, otherwise possessed, neither owned nor leased-in. The status of crop cultivation in the study villages is unique on the type of crops because 95 per cent of households response that they only cultivate the crops of paddy at once in a year. That means they only cultivate in Kharif season, not in Rabi. More than 30 per cent of the household not farming in the last season so they are attached to non-agriculture or casual labor for their livelihood. Among the four villages, in Kanikapada more than 60 per cent of the household not farming followed by the village of Chudamani 23.52 per cent, Mukundapur 15.44 per cent and Rahania 15.44 per cent. Across the social groups around 40 per cent belong to other backward castes, 27.20 per cent are scheduled caste, 19.17 per cent are scheduled tribes and 13.97 per cent by OTH caste not farming any land in the Kharif season.

So in the last season 271 household farming mainly paddy cultivation. The operational holding of land through various ways has been put in **Table 4.11**. It explains the households who are farming in last season and their land possessed proportion to across the social groups. Across the social groups ,a large portion of operating land cultivates by the scheduled caste than other three castes. Total land possessed by all village 361.62 acre which is the summation of four villages on the share of Mukundapur 31.69 per cent, Rahania 30.47 per cent, 26.77 per cent by Chudamani and only 11.03 per cent by Kanikapada. The absolute distribution of land across the village has been put in **Appendix 4.11**. Except for Kanikapada the proportion of farming land across the village more or less equal. Across the social groups more than 41 per cent land operated by scheduled caste. Although the land ownership of scheduled caste less proportion to social groups but operational holding or called land possessed by scheduled caste is more. Which indicate the large section of rural household operating land through the leasing-in way for the cultivation in Kharif season.

After the scheduled caste more land possessed by Other backward caste, followed by OTH and scheduled tribes. In scheduled caste proportion of household share more than the share of land possessed in all villages except Kanikapada where it is less than area possessed. That means around 60 per cent of household possessed more than 74 per cent of land in Kharif season across the social groups. Like scheduled caste, in scheduled tribes proportion of

household more than the land possessed in two villages and in Mukundapur area of land farming than the households. In OBCs and OTHs cases the two villages of Jajpur district proportion of households more than the land possessed but in villages of Bhadrak district land possessed more than households. Across the social groups of taking all villages, SCs/STs proportion of household more than the proportion of land cultivating during Kharif but on the higher castes cases land possessed more than the households. From this, we find that large section of scheduled caste and scheduled tribes operation land less than the household and the average cultivation land per households less than the higher caste.

Table 4.11 Proportion of households and area of land possessed across social groups during Kharif.

Village Name	Households and Area	Per centage of households and area cultivated across social groups				
		SCs	STS	OBCs	OTH	ALL
Kanikapada	Households	60.53	13.16	21.05	5.26	100
	Area	74.09	9.51	10.26	6.13	100
Mukundapur	Households	36.59	19.51	29.27	14.63	100
	Area	34.84	22.46	24.06	18.64	100
Rahania	Households	45.68	7.41	34.57	12.35	100
	Area	44.02	4.68	40.46	10.74	100
Chudamani	Households	38.57	-	41.43	20.00	100
	Area	31.64	-	50.78	17.58	100
All Villages	Households	43.17	9.96	32.84	14.02	100
	Area	41.12	9.60	34.69	14.59	100

Sources: Field Survey, 2016, Note: This is the per centage of land cultivated during Kharif. For Absolute land possessed and household see Appendix 4.11.

The average area of land farming during Kharif explain in **Table 4.12**. This is calculated by taking only those household cultivate the crops during Kharif. Out of 408 households in the current Kharif 271 households are cultivated paddy and rest 136 households do not cultivate any land in this period. Across the village as well as social groups all household operated more than one acre of land for the cultivation of paddy. Among the social groups, scheduled caste and scheduled tribes 1.27 acre and 1.29 acre of land cultivated in the current period. But the other backward caste more or less 1.40 acre of land possessed by per household. In village wise around the same land possessed by Mukundapur, Rahania, and Chudamani but at Kanikapada it is 1.05 acre which is lowest in the village. Except for Mukundapur, in other two village scheduled tribes operational holding land less than one acre and other backward cases except for Kanikapada all villages operated more than one acre of land i.e. in Kanikapada it is 0.51 acre per household farming. On the OTH caste cases all

village land possessed more than one acre and at Mukundapur it is highest all over the village, as well as social groups i.e., 1.78 acre per household land, cultivate during the period.

Table 4.12 Average area of land possessed or cultivated by social group and villages in Kharif(an acre)

Name of villages	The average area of land possessed during Kharif				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	1.29	0.76	0.51	1.23	1.05
Mukundapur	1.33	1.61	1.15	1.78	1.4
Rahania	1.31	0.86	1.59	1.19	1.36
Chudamani	1.13	-	1.7	1.22	1.38
All Village	1.27	1.29	1.41	1.39	1.33

Sources: Field Survey, 2016, Note: For average calculating only taking those HHs are cultivate during the season i.e., taking only 271 HHs instead of all households.

Like the household operating or farming during Kharif, not more household are cultivated in the other season like in Rabi. Most of the households of Rahania and Mukundapur response that due to lack of irrigation and damage of crops by bull or cattle they are not able to cultivate the Rabi crops like moong (mung), rapeseeds, wheat etc. The study of all village only 16 households cultivate some crops mainly moong and mustard (sarisa) in the last Rabi season. Out of these 16 households, 14 households belong to Kanikapada and one of each from Rahania and Chudamani. In Mukundapur no farmer farming during Rabi season. Across the social groups, 9 households belong to scheduled caste who are cultivate moong and mustard during the Rabi season, 5 household from OBCs and 2 households from STs. In Kanikapada, out of 14 households cultivate rabi crops 8 belong to scheduled caste four belong to OBCs and 2 belong to scheduled tribes. Out of 16 households, 14 households are cultivated moong in rabi and only two household farming mustard crops. During rabi total land farming in four village 6.90 acres which is the summation of 6.42 acre from Kanikapada village, 0.32 acre from Chudamani and 0.16 acre from Rahania. Across the social groups 4.03 acre land farming by scheduled caste, 2.07 acre by other backward castes and only 0.80 acres by scheduled tribes during the rabi season. In Mukundapur no one cultivates rabi crops and among the social groups OTH caste not operating any land during the rabi season. The average land cultivate in rabi crops taking all village and all social groups are only 0.43 acre, which is much less than kharif i.e., 1.33 acre was in Kharif season.

4.4 Social groups and village wise Tenancy Status: It indicates the operational holding among the village and inequality among the village on farming by different tenancy. First of all analysis the households out of total sample households in four villages in Kharif season.

Out of total sample, 271 households are operation some land for cultivation of crops. That means the rest of 137 households not farming in the survey periods. They are buying the rice for their family requirement basis rather than cultivating paddy. The village tenancy status of households, as well as the land operational holding, has been discussed in **Table 4.13**. From this table, we find that larger part of land cultivates through mix tenants, which is the summation of both owned and leased-in land. The tenancy status is calculated the total operational holding of households who cultivate crop in the last season. Out of 408 households, 271 households cultivate crops on 361.54 acre land in the Kharif season. A large section of land cultivates in the last Kharif season by mix tenants which are partly from owned and partly from leased-in. Around 52.79 per cent of land cultivated by mix tenants and 33.03 per cent by pure tenants. The pure tenants who are total cultivate the land by the leasing-in way. More than 32 per cent of households who are operated land by the leasing-in way.

Table 4.13 Village wise Tenancy across the operational holdings

Name of villages	Number of HHs and Total land operational holding				Per centage of HHs and Total land operational holding			
	Owner cultivator	Pure tenants	Mix tenants	Operational holding	Owner cultivator	Pure tenants	Mix tenants	Operational holding
Kanikapada	8	26	4	38	21.05	68.42	10.53	100
Mukundapur	28	26	26	82	34.15	31.71	31.71	100
Rahania	19	19	43	81	23.46	23.46	53.09	100
Chudamani	19	16	35	70	27.14	22.86	50.00	100
All villages	74	87	108	271	27.31	32.10	39.85	100
Kanikapada	4.41	32.88	3.92	39.95	11.04	82.30	9.81	100
Mukundapur	26.28	40.33	45.92	114.45	22.96	35.24	40.12	100
Rahania	10.48	25.7	74.16	110.1	9.52	23.34	67.36	100
Chudamani	12.02	20.5	66.86	96.84	12.41	21.17	69.04	100
All villages	53.19	119.41	190.86	361.54	14.71	33.03	52.79	100

*Sources: Field Survey, 2016. Note: **Owner cultivator** (only owned land cultivate HHs), **Pure tenants** (only land leased-in cultivate HHs), **Mix tenants** (partly owned& partly leased-in land HHs)*

Around 27.31 per cent of households who operates only owned land 14.71 per cent of total operational holding. Among the village in Kanikapada, 82.30 per cent of operated land cultivates through the pure tenants by 68.42 per cent households. In Rahania and Chudamani more than 68 per cent of land by mix tenants which is the summation of partly leased-in and partly owned. Among the village in Mukundapur 22.96 per cent of land cultivated by owner cultivation through 34.15 per cent households. That is highest among the village on owner cultivation.

Social groups wise tenancy status has been revealing in **Table 4.14**. More than half of the total operational land cultivate by 41.88 scheduled caste households under the mix tenants which is partly from owned land and partly from the leased-in way. Around 40 per cent of total operational land cultivates by 37.61 of scheduled caste households under the pure tenants. It is totally leased-in from the landlord or rich land owned households. Only 9.73 per cent of operational land cultivates under owner cultivation which is operated by more than 20 per cent of households. In scheduled tribes more than 75 per cent of land cultivated by 77.78 scheduled tribes households through the pure tenants, which is highest in pure tenants among the social groups.

Only 15.85 per cent of land cultivates through mix tenants, which is cultivated by 7.41 per cent of households. On the other hand, only 11.53 per cent of land cultivated by owner cultivation. From this, we can say that large section of scheduled tribes is cultivated the land through the lease-in way rather than owned. Because among them landless more and they are work as casual labour for the whole year. In other backward caste 67.58 per cent of land cultivated by 48.31 per cent of households under the mixed tenants. That indicates among the other backward caste only 15.40 per cent of total operational holding land cultivate by 32.58 per cent households under owner cultivation. Less than 20 per cent of households cultivate more than 21 per cent of land under the leasing-in land. So among the OBCs, only 21.91 per cent of land cultivated by pure tenants which is less than scheduled caste and scheduled tribes. The lastly on OTH caste we find 29.20 per cent of land cultivates under owner cultivation which is highest among the social groups. That indicates the households belong to OTH owned more or less some agriculture land for the cultivation in villages.

The proportion of households under the owner cultivation is 47.37 in OTH which is highest among the social groups. From the **Table 4.14**, we find that more than 47 per cent of OTH households have more or less some agriculture land, whereas in scheduled tribes only 11.11 per cent of the household has more or less agriculture land for cultivation. Among the social groups across the operational holding households, scheduled caste and other backward caste operated more land under mix tenants, scheduled tribes cultivate more land under pure tenants and OTH caste operated more under owner cultivation. On the other hand per centage of operational land holding among the social groups across the cultivation, except scheduled tribes all other three social groups cultivate larger part of the land under mixed operation, whereas in scheduled tribes 75.04 per cent of land cultivates by pure tenants process.

Table 4.14 Social groups wise Tenancy across the operational holdings

Name of villages	Number of HHs and Total land operational holding				Per centage of HHs and Total land operational holding			
	Owner cultivator	Pure tenants	Mix tenants	Operational holding	Owner cultivator	Pure tenants	Mix tenants	Operational holding
SCs	24	44	49	117	20.51	37.61	41.88	100.00
STs	3	21	2	27	11.11	77.78	7.41	100.00
OBCs	29	17	43	89	32.58	19.10	48.31	100.00
OTH	18	5	14	38	47.37	13.16	36.84	100.00
ALL	74	87	108	271	27.31	32.10	39.85	100.00
SCs	14.46	59.79	74.96	148.61	9.73	40.23	50.44	100.00
STs	4	26.04	5.5	34.7	11.53	75.04	15.85	100.00
OBCs	19.32	27.48	84.78	125.45	15.40	21.91	67.58	100.00
OTH	15.41	6.1	25.62	52.77	29.20	11.56	48.55	100.00
ALL	53.19	119.41	190.86	361.54	14.71	33.03	52.79	100.00

Sources: Field Survey, 2016. Note: **Owner cultivator** (only owned land cultivate HHs), **Pure tenants** (only land leased-in cultivate HHs), **Mix tenants** (partly owned& partly leased-in land HHs)

The term of tenancy under the study village we find that out of 189 households cultivate by leasing-in land, only nine households leasing-in by fixed rent and another six households leasing-in by fixed produces. This shows that 174 households leasing-in land cultivate by the sharecropping of crops. The irrigation status of land from all operational land in the Kharif season is only 44.47 out of total land cultivate 361.54 acre land. The total irrigation land in Kharif season only 160.84 acres. Only 12 households said in Rabi season has irrigation facilities. Due to lack of irrigation facilities the farmer of rural areas not operated any crops in Rabi season. The village wise across total irrigated land under Kharif season has been put in **Table 4.15**. In Rahania, out of 110.10 acres of operational land 97.34 acre land has irrigation facilities which are more than 88 per cent. The main sources irrigation of this village is a canal. In a village like Kanikapada and Chudamani around more than 95 per cent of operational land depend on rain-fed which is depend on monsoon. The total irrigation land through the different sources out of 160.84 acre land, found that most of the land irrigated through the canal. Around 68.3 per cent of land irrigated through the canal, 24.5 per cent by tube-well, 3.6 per cent by the river and 2.2 per cent by bore-well out of total land irrigated during Kharif season. So due to the lack of irrigation facility farmer not able to cultivate the owned as well leased-in land in the Rabi period as well as on the Kharif. Only seven households in total four village cultivate in Rabi crops. The Rabi crops mainly moong and mustard for the duration of last one years back.

Table 4.15 Irrigation land across the social groups in study villages

Villages	Total irrigated land (an acre)					Percentage of irrigated land				
	SC	ST	OBC	OTH	ALL	SC	ST	OBC	OTH	ALL
Kanikapada	5.78	-	2.72	1.5	10	57.8	0	27.2	15	100
Mukundapur	6.46	19.58	10.42	9.9	46.36	13.93	42.23	22.48	21.35	100
Rahania	40.44	4.28	40.68	11.94	97.34	41.55	4.40	41.79	12.27	100
Chudamani	2.62	-	1.56	2.96	7.14	36.69	0.00	21.85	41.46	100
All	55.3	23.86	55.38	26.3	160.84	34.38	14.83	34.43	16.35	100

Sources: Field Survey, 2016.

The distribution of households who cultivate by leasing in land from the long period of time. The leasing-in land used for only cultivation of crops of Paddy. The total leasing-in households of the four villages are 195 out of total operational holding households. Among the 195 households 26 households not response about the year of leasing-in land. In this question asked that how many years you are leasing-in land for the paddy cultivation, it is taking into account if the household not cultivates in the current period or either not cultivate the same land from the previous period. Out of 169 households 65 households (38.46 %) leasing-in land less than two years. More than 53 per cent of household (91 hhs out of 169 hhs) leasing-in more than 2 years but less than 5 years for the cultivation of paddy. Only 10 households who are leasing-in land for more than 5 years but less than 10 years and only 3 households say they are leasing-in land more than 10 years. In Mukundapur and Rahania more than 60 per cent households leasing-in land more than two years but less than 5 years. In Chudamani 48.98 per cent of leasing-in households cultivate by the leasing-in process less than 2 years. From this we can say at Chudamani, poor and landless farmer are leasing-in land from the landlord or rich farmers. The details of the leasing-in households across the years of leasing-in put in **Table 4.16**.

Table 4.16 Distribution of households who are leasing-in land in duration (in per cent)

Name of villages	Less than 2 years	2-5 years	5-10 years	More than 10 years	Total
Kanikapada	57.14 (4)	42.86 (3)	0.00	0.00	100 (7)
Mukundapur	38.46 (20)	59.62 (31)	1.92 (1)	0.00	100 (52)
Rahania	27.87 (17)	62.30 (38)	8.20 (5)	1.64 (1)	100 (61)
Chudamani	48.98 (24)	38.78 (19)	8.16 (4)	4.08 (2)	100 (49)
All villages	38.46 (65)	53.85 (91)	5.92 (10)	1.78 (3)	100 (169)

Sources: Field Survey, 2016. Note in round brackets the number of households leasing-in land.

The leasing-in households belong to scheduled caste rise more than the other three social groups in total. Because among the scheduled caste households large section households have no land or marginal land holding.

4.5 Farm and Non-farm income of Households: In rural areas the main sources of income of households from agriculture and allied activities. But it changes as per as the new generation preferences. The rural areas casual labour work as agriculture and non-agriculture with farming of crops like paddy for supplies of food for consumption in a whole year. As per as NSSO (2012-13) 'Situation Assessment Survey of Agricultural Households' in India estimated out of 15.61 crore rural households, 9.02 crore (57.8 per cent) households were *agricultural*⁸. In Odisha total rural agriculture households around 44.94 lakhs, which is 57.5 per cent of total rural households and out of these agricultural households 62.4 per cent of households reporting farming like cultivation, attached with livestock caring and other agricultural activities (Damodaran, 2014:13). The present study focus on the income of casual agricultural labour (CAL) and casual non-agriculture labour (CNAL) from farming and non-farming. The households although treated as agriculturallabour as per a family member work as agriculture labour principal sources of employment but also the same agriculture labour work non-farm activities like construction work, road work, load and unload work in tractor etc. The income of all villages households comes from farming and nonfarming is 53.95 and 46.05 per cent by farm and nonfarm income respectively.

Table 4.17 Farm and Non-farm income of casual agricultural and non-agricultural labour (in percentage)

Villages & Social groups	Casual agricultural labour (CAL)		Casual non-agricultural labour (CNAL)	
	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income
Kanikapada	58.41	41.59	15.73	84.27
Mukundapur	50.29	49.71	21.1	78.9
Rahania	49.37	50.63	25.08	74.92
Chudamani	59.15	40.85	25.87	74.13
All villages	53.95	46.05	21.89	78.11
Scheduled Caste	59.02	40.98	27.47	72.53
Scheduled Tribes	46.03	53.97	29.41	70.59
OBCs	55.78	44.22	15.55	84.45
Others	40.15	59.85	22.47	77.53
All Caste	53.95	46.05	21.89	78.11

Sources: Field Survey, 2016. Note: for village wise see **Appendix 4.12 & 4.13**. Farm and Non-farm income is the total income of the household.

In **Table 4.17**, village and social groups wise farm and non-farm income of casual agriculture laborare explained. In Kanikapada and Chudamani around 60 per cent of income comes from

⁸ Agricultural as defined by as those having at least one member of a household self-employed in farming, either as primary (principal) or secondary (subsidiary) occupations during the last 365 days. See more Harish Damodaran, Financial Express, "There's less of Krishi in Bharat now" December 22, 2014.

farming by agricultural labour households and for Mukundapur and Rahania farm and nonfarm income is 50.29 per cent and 49.37 per cent respectively.

Across the social groups scheduled caste casual agricultural labour 59.02 per cent of income come from farming and 40.98 per cent income from non-farming. In other backward caste agricultural labour more than 55 per cent of income earned from agriculture, followed by scheduled tribes 46.03 per cent and OTH caste only 40.15 per cent. The OTH caste non-farming income more than farming among the social groups. Because of OTH caste casual agricultural labour work more non-agriculture related work rather than work in only farming. The village wise proportion of farm and non-farm income among the social groups of casual labour in agriculture and non-agriculture explain in **Appendix 4.12 & 4.13**. In scheduled caste casual agricultural labour households at Chudamani 68.76 per cent, income comes from farming which is highest among all the village, followed by the village of Kanikapada 66.07 per cent, Mukundapur 52.42 per cent and in Rahania 51.87 per cent. In scheduled tribes

4.5.1 Average farm and non-farm income of casual labour: Farm income includes the income from farming related to the cultivation of crops, fisheries, poultry, and livestock. Farming related to the agriculture and based on the operation of crop cultivation. It includes also the income from daily wage labour nearby village on working in the field. The estimated average total farm and non-farm income of casual labour in last year explained in **Table 4.18**. First, we discuss the casual agricultural labor's village wise farm, non-farm, and total average income. The average income of casual agriculture labour in total Rs. 63,219 and for casual non-agriculture labour it is Rs. 85,828. In farm and non-farm income of casual agricultural labour is Rs. 34,105 and Rs. 29,113 respectively. On the other hand for casual non-agricultural labour average income from the farm is Rs. 18,783 and for no-farm it is Rs. 67,044. First, we discuss the casual agricultural labour total income village wise and social groups wise. In village wise highest total income earned by the casual agriculture labour household in Chudamani Rs. 79,089, followed by village Rahania (Rs. 59,539), Kanikapada (Rs. 58,377) and Mukundapur (Rs. 55,958). Among the social group's total income of casual agriculture labour OBCs is Rs. 71, 884, followed by social group OTH caste Rs. 64,176, scheduled caste Rs. 60,480 and scheduled tribes Rs. 58,396. In the farm income of casual labour Chudamani village topped followed by village Kanikapada, Rahania, and Mukundapur. Among the social group, casual labour's farm income OBCs is Rs. 40,095, then subsequently for scheduled caste (Rs. 35,697), scheduled tribes (Rs. 26,880) and OTH (Rs.25,766). In non-farm income of casual agriculture labour village wise, we find that top

income earned by the villagers in Chudamani then Rahania, Mukundapur and lastly in Kanikapada. On the social group's wise no-farm income of casual agricultural labour, OTH caste earns Rs. 38,409 and more or less equally by other backward castes and scheduled tribes and scheduled caste casual labour income from non-farm is only Rs. 24,783.

Table 4.18 Per annum Average farm and non-farm income of casual agriculture labour and non-agriculture labour (in Rs)

Village & Social groups wise	The average income of CAL (Rs)			The average income of CNAL (Rs)		
	Farm Income	Non-Farm Income	Total Income	Farm Income	Non-Farm Income	Total Income
Kanikapada	34100.00	24277.33	58377.33	13576.47	72743.82	86320.29
Mukundapur	28141.67	27816.67	55958.33	18246.43	68237.29	86483.71
Rahania	29391.94	30147.10	59539.03	20777.00	62050.33	82827.33
Chudamani	46784.50	32305.40	79089.90	22563.61	64663.72	87227.33
All villages	34105.83	29113.43	63219.26	18783.89	67044.44	85828.33
SCs	35697.00	24783.00	60480.00	20637.69	54484.42	75122.12
STs	26880.00	31516.67	58396.67	19450.57	46694.29	66144.86
OBCs	40095.50	31788.50	71884.00	16412.34	89145.11	105557.40
GEN	25766.67	38409.78	64176.44	18967.57	65450.76	84418.32
ALL	34105.83	29113.43	63219.26	18783.89	67044.44	85828.33

Sources: Field Survey, 2016. Note: for village & social groups wise see **Appendix 4.14 & 4.15**.

Secondly, we discuss the casual non-agricultural labour income from the farm, non-farm and total in last one year. It is depicted in **Table 4.18**. In the village wise the total income of casual non-agriculture labour is Rs. 85,828. It is higher than the income of casual agricultural labour in total. The village wise total income of casual non-agriculture labour more than Rs. 85,000, while marginally less in village Rahania i.e., Rs. 82,827. Among the social groups, it is highest in other backward caste, which is Rs. 1,05,557, followed by OTH caste Rs. 84,418, scheduled caste Rs. 75,122 and scheduled tribes Rs. 66,144. Farm income of casual non-agricultural labour is highest in Chudamani, in compared to other three villages. In Chudamani the farm income is Rs. 22,563, followed by village Rahania Rs. 20,777, Mukundapur Rs. 18,246 and Kanikapada Rs. 13,576. Among the social groups of farm income of casual non-agricultural labour highest in scheduled caste (Rs. 20,637), then scheduled tribes (Rs. 19,450), OTH (Rs. 18,967) and other backward caste (Rs. 16,412). In the non-farm income of casual non-agricultural labour, at Kanikapada Rs. 72,743, which is highest among the villages. Among the social groups OBCs casual non agricultural labour income earned Rs. 89,145 per year, followed by the social group OTH caste Rs. 65,450, scheduled caste Rs. 54,484 and scheduled tribe Rs. 46,694.

4.5.2 Casual Agriculture Labour's Income from Farming and Non-farming: In **Table 4.19**, reveals the subcategories of farm income of casual agricultural labour in last one year. The proportion of income from cultivation, casual labour work and other work is the total farm income of casual labour. More than 53 per cent of farm income came from labour work of agricultural labour, whereas 40.5 per cent income comes from cultivation which includes income from leasing-in land income plus own land cultivation. All village casual labour income from labour work more than fifty per cent except Rahania, where its income is 48.75 per cent. Income from cultivation in each of the village more than 40 per cent except Kanikapada agriculture labour. In Kanikapada agricultural labour income from cultivation only 16.13 per cent, which is lowest among the villages. If we analysis social groups wise income, scheduled caste casual agricultural labour earn 66.22 per cent of income from agricultural labour work followed by the social group of OBCs, OTH, and scheduled caste. The income of agricultural labour belongs to OTH caste from cultivation 47.65 per cent which is highest in cultivation income among the social groups, followed by the social groups of OBCs scheduled caste and scheduled tribes. The average income of casual labour from cultivation is around Rs. 13,811, agriculture labour Rs. 18,335. The highest average income earns from cultivation by village wise top position in Chudamani Rs. 21,484, followed by Rahania Rs. 14,095, Mukundapur Rs. 11,725 and Kanikapada Rs. 5,500. For the income from agricultural labour it is top in village Chudamani (Rs. 25,075) followed by the village Kanikapada (Rs. 19,933), Mukundapur (Rs. 16,416) and Rahania (Rs. 14,329). Across the social groups, highest income earned from cultivation by other backward caste agricultural labor (Rs. 17,935) followed by the scheduled caste, OTH, and scheduled tribes. On the other hand income from agricultural labour work, OBCs in the top and more or less equal for scheduled caste and scheduled tribes is Rs. 17,800 and in bottom position achieve by OTH (Rs. 13,488).

In **Table 4.20**, casual agriculture labour income from non-farm subcategories like from non-agriculture labour work like construction work, load & unload work, work as a driver, other labour work. Migration income indicates the agriculture labour sometimes goes to the outside of the states after cultivation period and stay some months and return back to the cultivation period again. It is called seasonal migrant labour. This is the summation of income from all other family members income from migrating to another part. In village wise Kanikapada and Chudamani more than 75 per cent of income come from non-agricultural labour work.

Table 4.19 Proportion and average income of casual agricultural labour (CAL) from cultivation, agriculture labour work and other work

Name of villages & Social groups	Proportion income of CAL (%)			The average income of CAL (Rs)		
	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
Kanikapada	16.13	58.46	25.42	5500.00	19933.33	8666.67
Mukundapur	41.66	58.34	0	11725.00	16416.67	0
Rahania	47.96	48.75	3.29	14095.16	14329.03	967.74
Chudamani	45.92	53.6	0.48	21484.50	25075.00	225.00
All villages	40.5	53.76	5.74	13811.79	18335.71	1958.33
SCs	39.34	49.91	10.75	14044.50	17815.00	3837.50
STs	33.53	66.22	0.25	9013.33	17800.00	66.67
OBCs	43.98	54.77	1.25	17635.50	21960.00	500.00
OTH	47.65	52.35	0	12277.78	13488.89	0
ALL	40.5	53.76	5.74	13811.79	18335.71	1958.33

Sources: Field Survey, 2016. Note: Cultivation + agriculture labour work + others = 100 per cent. Average income is measured by Rs. **Cultivation includes:** gross income from own land, sharecropping, leasing-in land and leased-out land; **Agriculture labour work include:** income from casual labour, another family casual labour income, and permanent agriculture labour work; **Other work include:** income from animal husbandry, machinery, fisheries etc. Note: for village & social groups wise see **Appendix 4.16 & 4.17.**

However, in other two villages more than 60 per cent income comes from this village-level non-agricultural work. In total, all villages 67.07 per cent of income comes from non-agricultural labour work, 14.17 per cent from migrating labour income and 18.76 per cent from other. In Mukundapur around 35 per cent of income comes from migrating labor work followed by the villages of Kanikapada and Rahania less than 10 per cent. Among the social group except for OTH caste all three caste proportion income from non-agriculture labour work more than 70 per cent. In the OTH and OBCs caste income from other than migration and labour work more than the scheduled caste and scheduled tribes. If we analysis the average income of casual agriculture labour from non-agriculture labour works is Rs. 19,526. The village wise top non-agricultural labour work in Chudamani (Rs. 24,415) followed by the village Kanikapada (Rs. 18,900), Rahania (Rs. 18,319) and Mukundapur (Rs. 16,694). And income from migration, highest income earned by casual agriculture labour by village Mukundapur, which is around Rs. 9,694 but on the highest income from other it is in village Rahania (Rs. 8,989). Among the social group's average income of casual agricultural; labour from non-agriculture labour work, highest in scheduled tribes Rs. 23,333, followed by the social group's other backward caste, scheduled caste and OTH. On migration income scheduled tribes is top and followed by other backward caste Rs. 4,800, scheduled caste Rs. 3,500 and OTH Rs. 2,667.

Table 4.20 Proportion and average income of casual agricultural labour (CAL) from non-agriculture labour work, migration and other work

Village & Social groups	Proportion income of CAL (%)			The average income of CAL (Rs)		
	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
Kanikapada	77.85	9.89	12.26	18900.00	2400.00	2977.33
Mukundapur	60.02	34.85	5.13	16694.44	9694.44	1427.78
Rahania	60.77	9.42	29.82	18319.35	2838.71	8989.03
Chudamani	75.58	7.43	17	24415.00	2400.00	5490.40
All villages	67.07	14.17	18.76	19526.19	4125.00	5462.24
SCs	70.18	14.12	15.7	17392.50	3500.00	3890.50
STs	74.03	18.3	7.67	23333.33	5766.67	2416.67
OBCs	72.12	15.1	12.78	22925.00	4800.00	4063.50
OTH	39.34	6.94	53.72	15111.11	2666.67	20632.00
ALL	67.07	14.17	18.76	19526.19	4125.00	5462.24

Sources: Field Survey, 2016. Note: Non-agricultural labour work + migration work + others = 100 per cent. Average income is measured by Rs. **Non-agriculture labour work include:** income from commuting migration, non-farm work, income from other family on casual non-agriculture work; **Migration labour work include:** income from migrating other than commuting work; **Other work includes:** income from non-farm NREGS work, permanent labour, lord & unload, business, own account enterprise, construction work, house rent, old age pension, etc., For village & social groups wise, see **Appendix 4.18 & 4.19.**

4.5.3 Casual Non-agriculture Labour's Income from Farming and Non-farming: Like the income of agricultural labour from farm sector and non-farm sector, casual non-agriculture labour also works in farm and non-farm although their main occupation as casual non-agricultural work. Average and proportion of farm income of casual non-agricultural labour village and social group wise put in **Table 4.21**. First village wise composition of income shows that half of the income comes from cultivation and 45.77 per cent income agriculture labour work. In Mukundapur 68.43 per cent of the income of casual non-agriculture labour comes from cultivation, which is highest among the villages. The second and third position on income from cultivation came in the village at Rahania and Chudamani. In Kanikapada, only 20.59 per cent of income earned by casual non-agricultural labour from cultivation. The income from agricultural labour work of casual non-agricultural labour highest in village Kanikapada, followed by Chudamani village. In Mukundapur and Rahania 30.87 per cent and 38.72 per cent of income come from agriculture labour work respectively. Among the social groups of casual non-agricultural labour, around 60 per cent of income comes from the cultivation of OBCs and OTH, whereas for scheduled caste and scheduled tribes 48.18 per cent and 23.04 per cent respectively. The income from agriculture labour work, scheduled tribes casual non-agriculture labour earn 73.88 per cent, which is highest among the social groups.

Table 4.21 Proportion and average income of casual non-agricultural labour (CNAL) from cultivation, agriculture labour work and other work

Name of villages & Social groups	Proportion income of CNAL (%)			The average income of CNAL (Rs)		
	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
Kanikapada	20.59	66.84	12.56	2795.59	9075.00	1705.88
Mukundapur	68.43	30.87	0.7	12485.71	5632.14	128.57
Rahania	58.15	38.72	3.13	12082.00	8045.00	650.00
Chudamani	46.5	50.91	2.59	10492.78	11487.5	583.33
All villages	50.17	45.77	4.06	9424.07	8596.85	762.96
SCs	48.18	46.88	4.94	9943.46	9675.00	1019.23
STs	23.04	73.88	3.08	4480.57	14370.00	600.00
OBCs	59.13	38.28	2.59	9704.89	6281.91	425.53
OTH	62.88	31.56	5.56	11927.03	5986.49	1054.05
ALL	50.17	45.77	4.06	9424.07	8596.85	762.96

Sources: Field Survey, 2016. Note: Cultivation + agriculture labour work + others = 100 per cent. Average income is measured by Rs. **Cultivation includes:** income from own land, sharecropping, leasing-in land and leased-out land; **Agriculture labour work include:** income from casual labour, another family casual labour income, and permanent agriculture labour work; **Other work includes:** income from animal husbandry, machinery, fisheries etc. Note: for village & social groups wise see **Appendix 4.20 & 4.21.**

The lowest income earns by OTH and OBC from the agriculture labour work shown in **Table 4.21**. In the average income of casual non-agricultural labour in total for cultivation Rs. 9,424, for agricultural labour work Rs. 8,596 and for other Rs. 762. Among the village income from cultivation more or less as equal in Mukundapur and Rahania and for Chudamani it is Rs. 10,492 and in bottom placed by Kanikapada village. In agriculture labour work, highest income earned by casual non-agricultural labour from Chudamani Rs. 11,487, followed by village Kanikapada (Rs. 9,075), Rahania (Rs. 8,045) and Mukundapur (Rs. 5,632). Among the social group's average income from cultivation OTH caste Rs. 11,927, for scheduled caste Rs. 9,943, for other backward caste Rs. 9,704 and for scheduled tribes Rs. 4,480. Income from the agriculture labour work is Rs. 14,370 for scheduled tribes, Rs. 9,675, for scheduled caste, Rs. 6,281 for other backward caste and Rs.5,986 for OTH.

The proportion of income across the activities and average income from each of the sub-categories of non-farm work of casual non-agricultural labour explain in **Table 4.22**. In the village wise casual non-agriculture labour income from non-agriculture labour work higher than the income from migration and other. Around 53 per cent of income comes from non-agriculture work in taking all village on the account. Except for Kanikapada, all village more than half of the income of casual non-agricultural labour come from non-agriculture

labour work like construction work, load & unload, work as a helper in the tractor, another daily wage non-agricultural work. In Mukundapur and Kanikapada more than 30 per cent of income comes from a whole year and seasonal migration labour work. Among the social groups, except OTH caste all three castes more than half of the income come from non-agriculture labour work. Scheduled tribes casual non-agricultural labour earn 68.03 per cent of income from non-agriculture work nearby villages. In the migration work, OTH caste earns around 33 per cent in total non-farm income of casual non-agriculture labour. Because higher caste people want to work as in factories or company rather than work in the village as casual labour. So the labour belongs to other backward caste and OTH work more in migration than other two castes. The average income of the casual non-agriculture labour in village wise we find that in non-agriculture labour average income Rs. 35,537, and for migrating it is Rs. 15,518 and for other work Rs. 15,987. In the village wise average income from non-agriculture labour work highest by Chudamani (Rs. 44,351) and then more or less as equal Rs. 34,000 at Rahania and Mukundapur. The income from migrating work by casual non-agricultural labour highest in Mukundapur followed village Kanikapada, Rahania and Chudamani.

Table 4.22 Proportion and average income of casual non agricultural labour (CNAL) from non-agriculture labour work, migration and other work

Village & Social groups	Proportion income of CNAL (%)			The average income of CNAL (Rs)		
	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
Kanikapada	38.49	30.18	31.32	28001.18	21955.88	22786.76
Mukundapur	50.45	37.67	11.88	34423.57	25707.14	8106.57
Rahania	56.09	16.75	27.16	34802.33	10393.33	16854.67
Chudamani	68.59	5.89	25.53	44351.39	3805.56	16506.78
All villages	53.01	23.15	23.85	35537.67	15518.89	15987.88
SCs	56.43	22.25	21.32	30745.96	12125.00	11613.46
STs	68.03	19.24	12.72	31767.14	8985.71	5941.43
OBCs	51.93	21.7	26.37	46289.79	19346.81	23508.51
OTH	38.59	32.87	28.54	25256.76	21513.51	18680.49
ALL	53.01	23.15	23.85	35537.67	15518.89	15987.88

Sources: Field Survey, 2016. Note: Non-agricultural labour work + migration work + others = 100 per cent. Average income is measured by Rs. **Non-agriculture labour work include:** income from commuting migration, non-farm work, income from other family on casual non-agriculture work; **Migration labour work include:** income from migrating other than commuting work; **Other work includes:** income from non-farm NREGS work, permanent labour, load & unload, business, own account enterprise, construction work, house rent, old age pension, etc., For village & social groups wise, see **Appendix 4.22 & 4.23.**

Among the social groups, average income from non-agriculture labour work is highest in other backward caste, which is more than Rs. 46,000. The scheduled caste and scheduled

tribes more or less more than Rs. 30,000 income earned per year from work nearby village non-agriculture labour work. On the migrating work OTH caste income more than the other three social group.

4.6 Debt of households/farmers: In rural areas majority of households taking a loan from the other on the period of emergency. So that the participation of loan among the rural farmers more. The informal side of credit supply continues to dominance for rural total credit supply. As per as the farm size the sources of loan changes, if the size of land more farmer is taking a loan from formal sources than informal. Like the landless and marginal farmers receive loan more from money lenders and shopkeepers than other informal sources. So the sources of borrowing change as per as the land ownership in Odisha (Mishra, 2004). The backward region of farmers used the loan for the purpose of consumption instead of used in productive purpose like used in production. In the study of 408 households of the coastal belt of Odisha, we find that more than 85 per cent of households borrowing from any sources like formal and informal sources. Only 59 households not borrowing any loan from the formal or informal sources. Among them 25 belongs to SCs, 18 belong to STs, 12 belong to OBCs and only four households are OTH caste not borrowing any land neither from formal nor from informal. If we analysis the village wise 20 HHs from Kanikapada, 19 from Rahania and 10 of each in Mukundapur and Chudamani not borrowed any loan for the current period. On the other hand, who are borrowing loan describes in **Table 4.23**.

Table 4.23 Percentage of households borrowing loan across social groups

Name of Villages	Borrowing loan within the Social Groups					Borrowing across the Social Groups			
	SCs	ST	OBCs	OTH	ALL	SCs	ST	OBCs	OTH
Kanikapada	73.33	72.41	86.21	100	80.00	27.50	26.25	31.25	15.00
Mukundapur	90.91	70.59	97.37	93.75	90.38	31.91	12.77	39.36	15.96
Rahania	84.78	37.50	88.89	75.00	81.37	46.99	3.61	38.55	10.84
Chudamani	84.44	-	92.50	100	90.20	41.30	0.00	40.22	18.48
All villages	83.77	66.67	91.61	92.98	85.54	36.96	10.32	37.54	15.19

Sources: Field Survey, 2016. Note: Borrowing across the social groups summation is hundreds. For the number of households borrowing and not borrowing village wise and social groups basis put in Appendix 4.24.

Percentage of borrowing households within the social groups other backward caste (OBCs) other caste (OTH) are more indebted than scheduled caste and scheduled tribes. Among the social groups, around 93 per cent of households are indebted, followed by OBCs (91.61 per cent), SCs (83.77 per cent) and STs (66.67 per cent). Among the village out of 100 households in Kanikapada, 80 per cent are borrowing loan or indebted. In Mukundapur and Chudamani more than 90 per cent of households are indebted.

If we analysis the proportion of indebted households across the social groups on each of the villages, we find that in total more or less as equal around 37 per cent of other backward caste and scheduled caste households are indebted, followed by OTH and scheduled tribes 15.19 and 10.32 per cent respectively. On the discussion of each social groups, we find that in Rahania and Chudamani large per cent of scheduled caste households are indebted than the Kanikapada and Mukundapur village. In scheduled tribes at Kanikapada, more households are indebted. On the other backward caste compared to all village around 40 per cent of households are indebted except in village Kanikapada where only 31.25 per cent of households are indebted. In Chudamani, OTH caste proportionately more indebted than compared to other village but across each village OTH caste not much indebted than the other social groups. In overall we find that scheduled caste and other backward caste more indebted than scheduled tribes and OTH caste.

4.6.1 Access of Formal and Informal sources Credit/Loan:

Out of 408 households 349 households have borrowed a loan or debt from the village or nearby village. In total 349 households take loan formal or informal sources for as per as their family requirements. First,we analysis in total formal sources loan receives households, we find that out of 349 households, 186 households receive a loan from formal sources and rest (163 hrs) not receives any type of formal sources. On the other hand total, informal sources loan borrowers households are 303 households and 46 households response that they are not taking any loan from informal sources. If we analysis in the aggregate figure of taking all villages and all social groups the proportion households who receive only formal sources, or only informal sources or both receives households reveals in **Table 4.24**.

We find that only 46 households who are only borrowed loan from formal sources out of total formal sources borrowed households. That means out of total indebted households (349 hrs) only 46 households borrowed loan from only formal sources, 163 households borrowed only from informal sources and 140 households who borrowed from both formal and informal sources loan. We can say out of total indebted or loan borrowers only 13.18 per cent of households borrow from only formal sources, 46.70 per cent households borrow from only informal sources and 40.11 per cent of households borrowed from both formal and informal sources.

Table 4.24 Social groups wise formal and informal sources indebted households

Loan type	Type of Loan receives HHs	SC	ST	OBC	OTH	ALL
Formal	Total formal sources loan taking	60	7	76	43	186
	HHs out of total indebted HHs	[32.26]	[3.76]	[40.86]	[23.12]	[100]
	Only formal sources loan receives HHs out of 186	13	3	26	4	46
		[28.26]	[6.52]	[56.52]	[8.70]	[100]
Informal	Total informal sources loan taking	116	33	105	49	303
	HHs out of 359 indebted HHs	[38.28]	[10.89]	[34.65]	[16.17]	[100]
	Only informal sources loan receives HHs out of 303	69	29	55	10	163
		[42.33]	[17.79]	[33.74]	[6.13]	[100]
Total	Total formal & informal indebted HHs	129	36	131	53	349
		[36.96]	[10.32]	[37.54]	[15.19]	[100]
	From both sources, loan receives HHs out of 349	47	4	50	39	140
		[33.57]	[2.86]	[37.51]	[27.86]	[100]

Sources: Field Survey, 2016. Note: parenthesis indicates the row total.

The details have been explaining in **Table 4.24**. It reveals that around 86.82 per cent of households who do not receive formal sources of loan like from Banks, Co-operatives, regional rural banks, government or other formal sources i.e., 13.18 per cent households taking a loan from the above formal loan supplies. On the other hand, for easy to access loan from informal sources like a money lender, private companies, chit fund, rich farmer, friends & relatives and other informal sources, a large number of landless and marginal farmer prefer to borrow from this. So we can say the large section of rural areas households borrowing more loan from the informal sources than formal sources. We found that there is a high degree of loan participation rate among the households on borrowed from informal sources in the study village.

In **Table 4.25**, calculation based on the 349 households who are borrowed from both formal and informal as well as from both. In total formal sources borrowed households in the study village are 186 households and for informal sources 303 households. In contrary, 46.70 per cent of households not borrowed any loan from formal sources out of total indebted households and 13.18 per cent households not borrowed from any informal sources. The village wise proportion of households borrowing from formal and informal sources explain in **Table 4.25**. In total, more than 70 per cent of borrowing comes from informal sources in taking all village for consideration. From this, we say that in the rural areas maximum people depend on the access of loan from the informal sector. In the four village study around 186 households receives a loan from different formal sources, only 36 households say they are taking a loan from the nationalized commercial bank. Only seven households say they have

an account in state bank of India, (called India's largest public sector banks). Across the village in all villages more than 65 per cent of loan borrowing from the informal sector. In social groups wise the share of loan borrowing from informal sector high in scheduled tribes. It is for scheduled tribes 84.91 per cent followed by scheduled caste 82.4 per cent, other backward caste 64.16 per cent and OTH caste 62.62 per cent. We find that scheduled caste and scheduled tribes borrowing loan more from informal sector than formal sector in compared to other backward caste and OTH. The higher case can easily find a loan from formal sector like from co-operatives and banks or any financial institution and provide these loan to schedule caste at a high rate of interest.

Table 4.25 The proportion of formal and informal loan social groups wise each of villages

Social Groups	Kanikapada		Mukundapur		Rahania		Chudamani	
	Formal	Informal	Formal	Informal	Formal	Informal	Formal	Informal
SCs	38.42	61.58	10.9	89.1	13.65	86.35	26.21	73.79
STs	25.89	74.11	2.36	97.64	0	100	NA	NA
OBCs	24.2	75.8	28.19	71.81	45.57	54.43	42.29	57.71
OTH	53.46	46.54	34.12	65.88	33.59	66.41	34.33	65.67
ALL	31.28	68.72	24.13	75.87	32.33	67.67	33.9	66.1

Sources: Field Survey, 2016. Note: Adding formal and informal loan is 100 per cent.

In the village wise analysis of loan borrowing from formal sources higher found in Chudamani (33.9 per cent), followed by village Rahania (32.33 per cent), Kanikapada (31.28 per cent) and Mukundapur (24.13 per cent). In the socialgroup's wise analysis, in Mukundapur only 10.9 per cent of a borrower taking a loan from formal sources, followed by the village in Rahania it is only 13.65 per cent, in Chudamani 26.21 per cent and in Kanikapada 38.42 per cent. In the scheduled tribe's cases at Rahania out of eight total scheduled tribe families no one takes a loan from any formal sources in last year rather than they are taking a loan from village *Mahajan* or Landlord. In Mukundapur only 2.36 per cent and in Kanikapada 25.89 per cent of indebted scheduled tribe households taking a loan from formal sources. On the other backward caste cases at Rahania 45.57 per cent of households borrowed from formal sources, followed by the village Chudamani 42.29 per cent, Mukundapur 28.19 per cent and Kanikapada 24.2 per cent households. In the higher caste cases at Kanikapada more than half of the indebted households taking a loan from formal sector like co-operative for the purpose of crop cultivation in Kharif. All of these households more or less have some owned land so they can easily get a loan from commercial banks or from co-operative. In other three villages OTH caste around more than 32 per cent of loan

borrowing from formal sources which are larger than the scheduled caste and scheduled tribes.

4.6.2 Average loan or debt per household: The average loan borrowed by the indebted households is given in **Table 4.26**. It is mentioned that the average loan per households separately for formal sources, informal sources and total. First, we discuss the total average loan of different villages. In average total borrowing per households is around Rs. 50,000, and it is for formal Rs. 14,958 and for informal Rs. 35,104. In Rahania average total loan is Rs. 64,699 followed by the village higher in Mukundapur is Rs. 59,541, in Chudamani Rs. 41,271 and for Kanikapada Rs. 33,850. In the formal loan average cases same sequence higher loan per households as in Rahania, Mukundapur, Chudamani, and Kanikapada. But in the informal loan average Mukundapur indebted households borrowing more loan than the village of Rahania, Kanikapada, and Chudamani. In Second, among the social group total average loan taking by other backward caste is Rs. 64,309, followed by the social group OTH Rs. 60,161, scheduled caste Rs. 38,741 and scheduled tribes Rs. 23,925. In the formal sources cases, it is highest in other backward caste Rs. 23,045, followed by in OTH Rs. 22,490, scheduled caste Rs. 6,817 and scheduled tribes Rs. 3,611. In the informal loan cases, average loan by social groups is highest in other backward caste, OTH, scheduled caste and scheduled tribes. The average informal loan among the social group although higher in other backward caste but it is more also in schedules caste and scheduled tribes in compared to formal sources borrowing.

Table 4.26 Average loan borrowed by households from formal, informal and from both (in Rs)

Village & SGs	Name of Village & Social Groups	Formal sources	Informal sources	Total (Both formal & Informal)
Village wise	Kanikapada	10587.50	23262.50	33850.00
	Mukundapur	14367.02	45174.47	59541.49
	Rahania	20915.42	43784.34	64699.76
	Chudamani	13989.13	27282.61	41271.74
	All villages	14958.40	35104.58	50062.98
Social Groups wise	SCs	6817.83	31923.26	38741.09
	STs	3611.11	20313.89	23925.00
	OBCs	23045.80	41263.36	64309.16
	OTH	22490.19	37671.70	60161.89
	All social groups	14958.40	35104.58	50062.98

Sources: Field Survey, 2016. Note: Each of the villages among social groups kept in **Appendix 4.25**

The average loan from informal sector more in all social groups in compare to formal sector borrowing in all village also. The village wise formal, informal and total average loan per

indebted households put in **Appendix 4.25**. So we conclude that average loan from informal sector loan across the village and social groups more in a lower caste than the higher caste. The higher caste can get a loan from formal sector easily than the lower social group.

4.6.3 Sub-categories wise formal sources borrowing: The subcategories of formal sector borrowing proportionately has been explaining in **Table 4.27**. The different type of formal sector sub-categories borrowing loan is like commercial banks, co-operative banks, regional rural banks, government and other formal sources. Out of total households, only 349 households have borrowed a loan and among them, only 186 households borrowed from formal sources and rest 163 households not receives any loan from the formal sector. So around 46.70 per cent of indebted households borrowed from formal sources loans like from banks, co-operatives, and different financial institutions. So the calculation of formal sector borrowing based on only 186 households rather than total indebted households of the study villages.

Table 4.27 The composition of formal sources loans across the sub-categories

Among the village & SGs	Village & Social Groups	Commercial Banks	Co-operative Banks	Regional Rural Banks	Others	Total
Village wise	Kanikapada	14.52	56.67	0	28.81	100
	Mukundapur	34.47	53.61	0	11.92	100
	Rahania	44.18	41.59	9.45	4.78	100
	Chudamani	13.21	35.12	2.49	49.18	100
	All villages	29.22	45.55	3.75	21.47	100
Social groups wise	SCs	15.97	42.18	0	41.84	100
	STs	30.77	63.08	0	6.15	100
	OBCs	39.05	38.09	6	16.86	100
	OTH	13.93	65.02	1.26	19.8	100
	All Caste	29.22	45.55	3.75	21.47	100

Sources: Field Survey, 2016. Note for the village and social group wise see Appendix 4.26.

It indicates that those are taking a loan from the formal sources their sub-section where the households receive a loan. From this, we can say the how the indebted farmer households receive a loan from different formal categories. First of all, taking all village, 29.22 per cent of loan comes from commercial banks which arenationalized by the government, 45.55 per cent come from co-operative banks, 3.75 from regional rural banks and 21.47 per cent from other formal sources which is not included in the above categories. So in the rural areas, a large section of a loan from the formal categories come from co-operative banks. Because in the rural areas financial transaction between the people operates through the process of

cultivation of crops. Co-operatives provide a loan to the farmer as per as the land ownership, so the landless labouris not able to take a loan from the co-operatives. The second largest share of formal sources loans come from commercial banks which are around 29.22 per cent, followed by 21.47 per cent by others and 3.75 per cent through regional rural banks.

In Kanikapada around 57 per cent and in Mukundapur 54 per cent loan come from co-operatives which are higher than other villages as well as higher than the other sources of each village. In Rahania 44.18 per cent of formal sources, the loan comes from commercial banks which are highest among the villages. In Chudamani around half of the formal sources, loan comes from other i.e., outside of commercial banks, co-operative banks, and regional banks. In Kanikapada and Mukundapur no one receives the loan from regional rural banks. In Rahania more than 85 per cent of formal sources loan come from commercial banks and co-operative banks.

On the social groups, wise analysis of formal sources loan share of all village has been put in **Table 4.27**. In scheduled caste 42.18 per cent of loan receives from co-operative banks and 41.84 per cent from other formal sources which is not included in the above sub-categories of formal sources. More than 63 per cent of formal sources loan come from co-operative banks of scheduled tribes. The other backward caste more than 39 per cent of loan receives from commercial banks and 38.09 per cent from co-operative banks. Across the villages, OBCs receives large per cent of a loan from commercial banks. On the other hand, OTH groups receive 65.02 per cent of a loan from co-operative banks which are highest among the villages for formal sources. Scheduled caste and scheduled tribes no one taking a loan from regional rural banks. We can conclude that on the formal loan share across the village and social groups large section of share come from co-operative banks followed by commercial banks and others formal sources.

4.6.4 Average loan and rate of interest of sub-categories of the formal sector: The total formal sources loan receives households out of total indebted households is 186 households. Out of 186 households only 36 households who responded that they receive a loan from commercial banks. We can says out of 408 sample only 35 households who have received a loan from nationalized commercial banks. From that, we can imagine how much success of financial inclusion of Jan Dhan Yojana (JDY). In **Table 4.28** describe the average loan amount and the average rate of interest per year for the loan. The average rate of interest is annually calculated here. Like the commercial banks, in co-operative banks 112 households

taking a loan, from the regional rural bank only 5 households taking a loan and from other formal sources 74 households receive a loan. In a rural areas comparatively large number of households taking a loan from co-operative banks, followed by other formal sources loan and commercial banks. First, we discuss village wise average loan and interest rate of different formal sources of the loan. Taking all village on an average, Rs. 42,375 loan receives by households from commercial banks, Rs. 21,232 rupees loan from co-operative banks, Rs. 39,200 from regional rural bank and Rs. 15,149 rupees from other formal sources. The average loan per households from commercial banks is highest than other three sources of the loan. The rate of interest bear by the household for the loan from commercial banks is Rs. 14.16, from co-operative banks Rs. 18.12, from regional rural banks Rs. 21.6 and from other it is Rs. 24.36. The average rate of interest is measured for hundreds of rupees per year. The lowest interest rate charged by commercial banks, followed by co-operatives, RRBs, and others formal sources. Among the village in Kanikapada, an average loan from commercial banks Rs. 17,571, from co-operative banks Rs. 25,263, and from other Rs. 12,200. The rate of interest for loan bear by villagers of Kanikapada to commercial banks Re. 10.68, for co-operatives Re. 11.28 and for other Rs. 28.8. In Kanikapada no one receives the loan from RRBs. The lowest rate of interest rate charged by commercial banks and highest charges by other formal sources. The second village in Mukundapur, an average loan from commercial banks Rs. 38,791, from co-operatives Rs. 21,294, among others Rs. 23,000. The average loan from commercial banks is highest than other three sources. The rate of interest rate for these loan per months for hundred is Re. 11.28 by commercial banks, Rs. 19.44 rupees by co-operatives and Rs. 22.32 by other formal sources. In the third village Rahania, an average loan from commercial banks Rs. 63,916 per household, which is highest among the villages. From the co-operatives, average loan receives by villages of Rahania is Rs. 22,562, from regional rural banks Rs. 82,000 and from others it is Rs. 13,833. In Rahania, among the different formal sources loan, RRBs average loan amount is highest among the villages as well as all different categories of formal sources. The rate of interest bear by Rahania households for commercial banks Rs. 16.08, for co-operatives Rs. 24.24, for RRBs Rs. 18.0 and for other formal sources Rs. 32.88. The highest rate of interest charges by other formal sources, followed by RRBs, co-operative banks, and commercial banks. The fourth village at Chudamani, an average loan from commercial banks Rs. 42,375, from co-operative banks Rs. 21,232, from RRBs Rs. 10,667 and from others Rs. 15,439. In this village average loan for households highest from commercial banks, followed by co-operatives, other formal sources, and RRBs. The rate of interest for commercial banks Rs. 21.6, for co-operatives Rs. 14.16,

for RRBs Rs. 24.0 and for other formal sources Rs. 21.36. The highest loan charges by others formal sources than commercial banks, co-operatives, and RRBs. For overall we can say the average loan from commercial banks is highest, followed by RRBs, co-operative and others. Like the average loan, the average rate of interest charges by other formal sources is highest followed by RRBs, co-operative banks, and commercial banks.

The average loan and rate of interest of informal sources on the basis of social groups has been put in **Table 4.28**. The average loan from commercial banks is Rs. 17,562 per households which is higher than other three sources of the formal loan. The scheduled caste paid the higher interest rate for other formal sources than commercial and co-operative banks i.e., Rs. 30.24 for other formal sources, Rs. 20.4 for commercial banks and Rs. 18.72 for co-operative banks. The average loan receives by scheduled caste from co-operative banks is Rs. 12,793 on the average rate of interest Rs. 18.72. Although the average loan from other formal sources less than commercial banks and co-operative banks but the rate of interest charges by other formal sources higher than the commercial banks and co-operative banks. In the scheduled tribe cases average loan from commercial banks Rs. 20,000, followed by taking from co-operative banks Rs. 20,500 and from other formal sources Rs. 4,000. But the scheduled tribes bear less rate of interest for commercial banks than the scheduled caste.

Table 4.28 Average loan and annual rate of interest(in Rs) of different categories of formal sector loan

Among the village & SGs	Village & Social Groups	Commercial Banks		Co-operative Banks		Regional Rural Banks		Other Formal Sources	
		Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest
Village wise	Kanikapada	17571	10.68	25263	11.28	-	-	12200	28.8
	Mukundapur	38791	11.28	21294	19.44	-	-	23000	22.32
	Rahania	63916	16.08	22562	24.24	82000	18	13833	32.88
	Chudamani	34000	21.6	16741	14.16	10667	24	15439	21.36
	All villages	42375	14.16	21232	18.12	39200	21.6	15149	24.36
Social groups wise	SCs	17562	20.4	12793	18.72	-	-	12267	30.24
	STs	20000	9.96	20500	13.2	-	-	4000	24
	OBCs	65500	13.44	23958	18.6	45250	18	18179	22.2
	GEN	20750	10.68	24999	17.64	15000	36	16857	16.32
	All Caste	42375	14.16	21232	18.12	39200	21.6	15149	24.36

Sources: Field Survey, 2016. Note: The average loan borrowed calculate from a respective household like for **Commercial banks** only 36 HHs borrowed, so average based on only 36 HHs instead of 186 HHs. Like for **Co-operative Banks** based on 112 HHs, for **RRBs** based on 5 HHs and for **others** based on 74 HHs The rate of interest is not measure annually. It is asked for one month per hundreds rupees rate of interest. Average loan and rate of Interest measure in Rupees (Rs). Note for each village and social group wise see **Appendix 4.27**.

Scheduled tribes bear average loan for commercial banks is Re. 9.96, for co-operative banks Rs. 13.2 and for other formal sources Rs. 24.0. Like the scheduled caste scheduled tribes also paid the higher interest rate for the other formal sources loan than commercial banks and co-operative banks. The other backward caste cases average loan from commercial banks Rs. 65,500 which is highest among the village as well as all other different categories of formal sector loan. The average rate of interest for commercial banks is Rs. 13.44 followed by co-operative banks Rs. 18.6 and for other formal sources Rs. 22.2 per hundreds of rupees for per year.

The scheduled caste and tribes do not receive a loan from regional banks but other backward caste and OTH receives a loan from this. The average loan of other backward caste after higher the commercial banks, from regional rural banks Rs. 45,250, co-operative banks Rs. 23,958 and Rs. 18,179 from other formal sources. The average loan by OTH from co-operative banks is Rs. 24,999 which is highest from the different formal sources loan. The second highest average loan receives by OTH from commercial banks is Rs. 20,750, and followed by regional rural banks and other formal sources. The interest rate for the other (OTH) caste from the commercial banks is only Rs. 10.08, for co-operative banks Rs. 17.64 rupees and for other formal sources Rs. 16.32. The rate of interest bear by other (OTH) caste less than the other three social groups from the various formal sources loan.

4.6.5 Sub-categories wise Informal sources borrowing: Informal sector provides the largest loan share of total credit of the society. In rural areas, people are bound to borrow loan from the *Mahajan* or *Sahukar* for their requirement of money when excess over income. So they take a loan from a nearby village on the commitment of high rate of interest. The main informal loan supplier in the rural areas are a landlord or dominance classes belong to a mainly higher caste. So they operate their business on used the money on high rate return from the poor people in rural areas. As per as the study mainly cover six type of informal sector loan suppliers of informal sector loan explains in **Table 4.29**. These informal sources of borrowing loan are like a money lender, a rich farmer, chit fund like in local SKS, Bandhan, Seashore, Sahara, Rose Vally, L&T, many chit fund companies, friends & relatives, village level input traders and others. Out of 349 indebted households, only 303 households borrowed loan from informal sector and rest 46 households not take any loan from informal sources. That means around 13.18 per cent of households does not receive any loan from informal sources like from money lender, rich farmers, chit fund companies,

friends and relatives, input traders and others sources. The study based on 303 households who receive a loan from the informal sector.

The structure of informal credit market is slightly different from the formal credit market as per as the security and rate of interest. In the early period, landlord was work like the today banking system. But the share of credit from them reduced slowly by the emerge of banking and financial improvement. So the informal credit or informal borrowing from different sources fall but it does not vanish. In rural areas people who have no land, work as casual labour in the home of a rich farmer or higher caste receives a loan from rich people for their family. This should be considered as informal credit or borrowing, where the poor farmer of labour bears a high rate of interest for this loan. The share of borrowing from different informal credit sources has been depicted in **Table 4.29**. In the overall study, we find that the role of money lender for credit distributing on the total informal credit borrowing is highest. Around 44.34 per cent of loan borrowing from money lender by the households who are indebted. So the giant share of the lending loan by money lender, followed by other informal sources which are not mention in the different informal sources. On the distribution of formal credit chit fund companies also spread their business on the time of emergency of the farmer. Poor farmer not understands the actual rate of interest for the informal credit rather than understand they can easily get the loan from them. Sometimes people are taking a loan from the relatives or friend which is 10.82 per cent out of total informal credit. If we analysis the village wise borrowing from informal sources loan find that in Kanikapada and Chudamani people are taking less loan from money lender or land lord. The share of informal borrowing in that village 32.21 and 32.35 per cent respectively. Whereas other two villages in Mukundapur it is 55.66 per cent and in Rahania it is 45.6 per cent. Among the village money lender, borrowing was higher in Mukundapur, followed by Rahania, Chudamani, and Kanikapada. In Kanikapada and Chudamani people are taking many loans from Bandhan Chit Fund, Pvt. company, L&T, and SKS. The loan from these informal sources will be paid by the household on the commitment of weekly or twice a week or monthly. Those are taking not much loan from the money lender like in villagers of Kanikapada and Chudamani, receives more loan from chit fund companies and friends and relatives. In Kanikapada, 32.57 per cent of borrowing from the like Chit Fund, Bandhan Banks, SKS, and L&T. The agents of these informal credit distribution institution provide a loan to anyone without security. They are planning to collect the loan amount from the beneficiaries on the weekly basis on supporting to the dividend as well as interest rate. The poor households use the loan for

education, medical, social ceremonies and house making. Like Kanikapada in village Chudamani, people are taking a loan from friends and relatives as per as the emergency period. The poor farmer also paid the interest rate for this loan to their friends and relatives. In this village, we find that people are working more non-agriculture where they prefer to take borrowing from the nearby neighbor for the small period of time and it is return within one month or fifteen days after getting wages from the contractor on which under the work. The share of lending by rich farmers and input traders less than the other categories of informal loan sources. If we analysis the village wise higher on the respective loan sources find that, lending from rich farmers higher in village Chudamani and Rahania than other two villages, lending form chit fund companies Kanikapada and Mukundapur higher than other two villages. In Chudamani more than 24 per cent of total informal loan come from friends and relatives which is highest in the village. In Rahania, a loan from other informal sources is 28.67 per cent which is highest from other three villages, and second place occuppies by village jointly Chudamani and Kanikapada.

Table 4.29 The composition of informal sources loans across the sub-categories

Among the village & SGs	Village & Social Groups	Money Lender	Rich Farmers	Chit Fund Companies	Friend & Relatives	Input Traders	Other	Total informal
Village wise	Kanikapada	32.21	2.74	32.67	10.16	4.22	18	100
	Mukundapur	55.66	1.11	18.27	8.01	2.59	14.37	100
	Rahania	45.6	5.53	7.02	4.94	8.24	28.67	100
	Chudamani	32.35	7.63	12.29	24.58	5.02	18.13	100
	All villages	44.34	4.0	15.9	10.82	5.01	19.93	100
Social groups wise	SCs	39.36	5.94	12.01	11.51	7.04	24.14	100
	STs	35.42	2.05	28.44	12.99	11.12	9.98	100
	OBCs	44.55	2.35	19.28	8.1	3.86	21.87	100
	OTH	57.3	5.21	10.17	15.96	1.7	9.67	100
	All Caste	44.34	4.0	15.9	10.82	5.01	19.93	100

Sources: Field Survey, 2016. Note: Chit Fund Companies include Seashore, Artha Tatwa, Saradha Groups, Rose Valley Groups, Shine India and Sahara Groups, Green Ray etc.

On the other hand if we analyze the social groups wise borrowing from different informal credit taking all village in total find that OTH caste more than 57 per cent loan borrowing from money lender which is highest among the villages, followed by OBCs 44.55 per cent, 39.36 per cent scheduled caste and 35.42 per cent by scheduled tribes. More than 20 per cent of loan taking by scheduled caste and other backward caste from other informal sources of the loan than scheduled tribes and OTH caste. Scheduled tribes share of chit fund companies loan 28.44 per cent which is much higher than the other social groups. The share

of borrowing from friend and relatives for OTH caste is 15.96 per cent followed by 12.99 per cent by STs, 11.51 per cent by SCs and 8.1 per cent by OBCs. The informal credit share on jointly of money lender or landlord and other formal sources was around 67 per cent by other backward caste and OTH, followed by 64 per cent by the scheduled caste and 45.4 per cent by scheduled tribes. So the overall share of these two sub-categories of informal lend suppliers provides more than 64 per cent to all social groups except scheduled tribes which are 45.4 per cent. Due to the scheduled tribes taking a loan from chit fund like SKS, Bandhan, Chit fund (i.e. chit fund), and L&T.

4.6.6 Average loan and per annum interest rate of sub-categories of Informal sector:

The average loan and average interest rate of the village and social groups wise on each of different informal credit market has been explaining in **Table 4.30**. First, we discuss village wise average loan amount from each of sub-categories of informal credit sources. The average loan from money lender is Rs. 30,178 which is highest among the other informal borrowing followed by chit fund Rs. 25,292, other informal sources Rs. 23,941, friends & relatives Rs. 20,713 and input traders Rs. 13,062. The rate of interest charges for the above loan is highest among in rich farmers i.e., Rs. 46.92 rupees per hundred per annum, followed by money lender Rs. 45.72 rupees, input traders Rs. 44.28 rupees, friends & relatives Rs. 38.76, other informal sources Rs. 20.88 and chit fund companies Rs. 14.64 rupees. Except for chit fund companies and other informal sources, all sub-categories of informal credit markets charge more than Rs. 36 rupees interest rate for one hundred rupees for per annum. The **Table 4.30** reveal that in Kanikapada, an average loan from other formal sources Rs. 27,917 which is highest among the other different informal credit sources. The second place occupies by the chit fund Rs. 24,320 followed by money lender Rs. 23,058, friends & relatives Rs. 12,600, rich farmers Rs. 10,200 and input traders Rs. 6,542. The highest rate of interest charges for these loan by jointly input traders and other formal sources is Rs. 55.92, followed by rich farmers Rs. 55.20, money lender Rs. 52.20, friends & relatives Rs. 41.16 and chit fund companies Rs. 13.50. Except for private chit fund companies, all other informal credit suppliers charge a high rate of interest in this village. In the second village at Mukundapur, average loan amount from money lender is Rs. 36,930 on the rate of interest of Rs. 3.38 per hundreds in a month. The second highest loan receives from chit fund Rs. 31,040, followed by friends & relatives Rs. 24,286, other informal sources Rs. 20,333, rich farmers Rs. 11,750 and input traders Rs. 8,454. The rate of interest burden for the villagers of Mukundapur is highest from input traders Rs. 46.20 rupees, followed by Rs. 40.56 money

lender, Rs. 39.00 rich farmers, Rs. 35.76 friends & relatives, Rs. 20.40 other informal sources and Rs. 15.48 chit fund companies. In the third village Rahania, an average loan from money lender is highest which is more than Rs. 30,000. In this village other than money lender, different informal loan supplies also distribute the loan among the poor and landless farmer. The second highest average loan lender to this village by other formal sources Rs. 24,233, followed by input traders Rs. 21,393, chit fund Rs. 18,214, friends & relatives Rs. 17,960 and lastly by rich farmers Rs. 15,462. The average rate of interest bear by the villagers to friend & relatives Rs. 55.20 per annum for hundred rupees. The second highest rate of interest is imposed by money lender followed by rich farmers, input traders, other information sources and last by chit fund i.e., Rs. 52.56 by rich farmers, Rs. 37.56 by input traders. Only two sources called other informal sources and private chit fund companies charge less rate of interest than other informal sources, i.e., Rs. 13.8 for annually per hundreds rupees.

Table 4.30 Average loan and rate of interest (annually) in different categories of informal sources among the villages

		Kanikapada	Mukundapur	Rahania	Chudamani	All
Money Lenders	Average Loan	23058	36930	30685	22556	30178
	Rate of interest	52.20	40.56	53.28	38.64	45.72
Rich farmers	Average Loan	10200	11750	15462	14731	14014
	Rate of interest	55.20	39.00	52.56	40.56	46.92
Chit Fund	Average Loan	24320	31040	18214	23731	25292
	Rate of interest	13.80	15.48	12.96	16.80	14.64
Friends & Relatives	Average Loan	12600	24286	17960	24680	20713
	Rate of interest	41.16	35.76	55.20	32.64	38.76
Input Traders	Average Loan	6542	8454	21393	15750	13062
	Rate of interest	56.04	46.2	37.56	35.16	44.28
Other	Average Loan	27917	20333	24233	26765	23941
	Rate of interest	55.92	20.40	13.8	14.76	20.88

Sources: Field Survey, 2016. Note: The average loan borrowed calculate from a respective household like for Money Lenders only 180 HHs borrowed, so average based on only 180 HHs instead of 303 HHs. Like for Rich Farmers based on 35 HHs, for Chit fund based on 77 HHs, Friends & Relatives: 64 HHs, Input Traders 47 HHs and for others based on 102 HHs The rate of interest is measure annually. It is asked for one months per hundreds rupees rate of interest, and converted to year by multiplying 12. Average loan and rate of Interest measure in Rupees (Rs) Note for each village and social group wise see Appendix 4.28.

Otherwise, all the different categories of informal loan suppliers charge an exorbitant rate of interest for the loan to Rahania villagers. Lastly in the village of Chudamani, the average loan supplies by other informal sources as Rs. 26,765 per households on an average on the rate of interest of Rs. 14.76. The average loan amount borrowed by the villagers from friends & relatives Rs. 24,680, followed by chit fund Rs. 23,731, input traders Rs. 15,750 and rich farmers Rs. 14,731. The rate of interest charged by the different loan suppliers for the debtors

is Rs. 40.56 by rich farmers, Rs. 38.64 by money lenders, Rs. 35.16 by input traders, Rs. 32.64 by friends & relatives, Rs. 16.80 by chit fund and Rs. 14.76 by other formal sources. In this village, although average loan borrowed by highest from other informal sources but the rate of interest charges for that lowest among the other different informal sources.

On the social groups wise analysis of the average loan and rate of interest of taking all village in aggregates, we find that the scheduled caste receives Rs. 24,194 loan from money lender on the rate of interest per annum on average Rs. 48.12 rupees per hundred. Which is highest among the other different informal credit sources both in the average loan as well as the average rate of interest explained in **Table 3.31**. The second highest average loan receives by scheduled caste from other informal sources Rs. 23,116, followed by chit fund Rs. 21,500, friends & relatives Rs. 18,960, rich farmers Rs. 11,643 and input traders Rs. 10,361. The rate of interest on an average for these above loan bear by per households is Rs. 48.12 to a money lender, Rs. 46.8 to rich farmers, Rs. 43.44 to input traders, Rs. 35.88 to friends & relatives, Rs. 19.2 to chit fund and Rs. 17.88 to other informal loan suppliers. In the scheduled tribe's cases, average loan receives from money lender or landlord. Scheduled tribes are attached with both agriculture and non-agriculture work in the village on the home of rich farmers or landlord. So they are easy to take a loan from this money lender or *Mahajan* for maintaining their family in an emergency. The second highest average loan borrowed by scheduled tribes from chit fund, followed by other informal sources, friends & relatives, input traders and rich farmers. The highest rate of interest paid to friends & relatives on an average Rs. 57.96 by indebted scheduled tribes households. The second highest rate of interest paid by the scheduled tribes to both rich farmers and to input traders Rs. 54.0, followed by to money lender Rs. 42.0, other informal sources Rs. 19.08 and chit fund Rs. 11.64. The third social groups called other backward caste average loan is highest from money lender Rs. 35,412 on the average rate of interest of Rs. 45.58. The second highest loan receives by other backward caste from chit fund Rs. 30,647, followed by more or less by jointly input traders and other formal sources around Rs. 26,000, friends & relatives Rs.20,857 and rich farmers Rs. 15,875. The average rate of interest for the above categories of loan is highest on rich farmers Rs. 46.56, followed by money lender Rs. 45.58, friends & relatives Rs. 41.76, input traders Rs. 39.0, other informal sources Rs. 22.56 and private chit fund companies Rs. 11.64. In other backward caste households average loan receives more from money lender but the rate of interest has to paid higher in rich farmers or landlord i.e., also called as *Mahajan* in the village. In lastly discuss the higher caste average loan amount from the different informal

sources on an all villages. They are also taking more loan on an average Rs. 34,667 from the money lender who provides the loan on Rs. 3.52 rate of interest. The second average loan receives from friends & relatives Rs. 26,550, followed by rich farmers Rs. 26,000, chit fund Rs. 20,300, other informal sources Rs. 17,545 and input traders Rs. 6,800. The rate interest for the loan on an average bear by indebted OTH caste on Rs. 45.6 by input traders which are highest among the different informal loan suppliers. The second highest rate of interest charges by rich farmers Rs. 45.0, followed by money lender Rs. 42.24, friends & relatives Rs. 30.0, other informal sources Rs. 25.8 and Rs. 13.68 by chit fund. On an average highest loan receives by OTH caste from money lender but a higher rate of interest paid to input traders.

Table 4.31 Average loan and rate of interest (annually) in different categories of informal sources among the social groups

Sources of informal loan	Average loan & Rate of interest	Scheduled Castes	Scheduled Tribes	Other Backward Castes	Others	All Caste
Money Lenders	Average Loan	24194	21583	35412	34667	30178
	Rate of interest	48.12	42	45.48	42.24	45.72
Rich farmers	Average Loan	11643	7500	15875	26000	14014
	Rate of interest	46.8	54	46.56	45	46.92
Chit Fund	Average Loan	21500	20800	30647	20300	25292
	Rate of interest	19.2	15.48	11.64	13.68	14.64
Friends & Relatives	Average Loan	18960	15833	20857	26550	20713
	Rate of interest	35.88	57.96	41.76	30	38.76
Input Traders	Average Loan	10361	13550	26063	6800	13062
	Rate of interest	43.44	54	39	45.6	44.28
Other	Average Loan	23116	18250	26864	17545	23941
	Rate of interest	17.88	19.8	22.56	25.8	20.88

Sources: Field Survey, 2016.. Note: The average loan borrowed calculate from a respective household like for Money Lenders only 180 HHs borrowed, so average based on only 180 HHs instead of 303 HHs. Like for Rich Farmers based on 35 HHs, for Chit fund based on 77 HHs, Friends & Relatives: 64 HHs, Input Traders 47 HHs and for others based on 102 HHs The rate of interest is measure annually. It is asked for one months per hundreds rupees rate of interest; and convert to year by multiplying by 12. Average loan and rate of Interest measure in Rupees (Rs).Note for the village and social group wise see Appendix 4.30.

4.6.7 Determinants of Access formal Credit: The binary logistic regression technique is use to measure the probability or chance of a households access or receive loan from formal sources. The description of the variables used in this binary logistic regression model put in **Box 4.1**. The regression result explain in the **Table 4.32**. It is describe the household level determination like household size, education, land ownership, assets, farm income, household type etc.

Box 4.1: Description of Variable for Formal Loan or Credit (Logistic Regression):

Variables	Description
<i>Dependent variables:</i> if FloanR = 1	If the household taking loan from formal sources = 1, otherwise 0.
<i>Independent variables:</i> Household size (hh_size)	Household size or number of family member.
Total Assets (tot_asset)	Total assets value of the households (in Rs)
Household Type (hh_type)	If the households treated as casual labour (work in both CAL as well as CNAL) household = 1 otherwise 0
General education (edu_attan)	It is taking dummy each of the education status. It is categories three types like Illiteracy (1), Up to primary (2+3+4), and Reference category is <i>More than primary (5+6+7+8+9+10)</i> .
Illiteracy (edu_attadmy1)	If the households head is illiterate then = 1 other wise 0
Up to primary (edu_attadmy2)	If the household head literate or study up to primary 1 other wise 0
Total land owned in acre (tot_landowned)	It is also taking as dummy, like if the household is a landless household =1, otherwise =0, Reference category <i>more than one acre land cultivate households (Medium)</i> .
Land owned half acre (lo_acredmy1)	If the household is owned less than half acre of land (marginal) =1, otherwise =0
Land owned up to one acre (lo_acredmy2)	If the household is owned up to one acre of land (small) =1, otherwise =0
(Caste1	If the individual belong to SC = 1 otherwise 0
Caste2	If the individual belong to ST = 1 otherwise 0
Caste3	If the individual belong to OBCC = 1 otherwise 0 , <i>OTH caste</i> Reference category
Farm income (farm_incom)	Farm income or revenues earn by the households in last one year (in Rs)

Note: Italic categories are used as reference category in the regression models.

The total sample of household who are taking formal loan only 186 out of 400 households of the total villages. To investigate whether the households taking loan from formal sources or not and what are the indicator for influence to the receiving the loan. We use a binary logistic model to estimate the dependence on as household receiving formal credit or not. The results for binary logistic regression depicted in **Table 4.32**. The logistic regression result describe that the probability of a households received formal credit from the various sources like commercial banks, regional rural bank, cooperatives, govt and other formal sources. The access of formal credit influence by the different variables mentioned in the above box.

First we discuss about the determinant of household size, it is not affect to the loan of the households. If the households belong to landless, or marginal or small, there are lesser chance to taking loan from the formal sources than the more than one acre land owned households. It is support to the existing literature if the households are landless or marginal land holding, they are not able to find the loan form formal sources like banks, cooperatives

etc. Because the formal sources credit supplier need security for granting the loan to individual. So the poor agriculture labour or casual workers not access formal credit in the rural Odisha (Sarap, 1986). Like the scheduled caste and scheduled tribe are less likely to receives formal credit than other caste.

Table 4.32 Determinants of Access to Credit from formal sources

Description of Variables	Odd Ratio	SE
Household size	0.920	0.066
Total assets	1.000	0.000
Work as Casual Labour	0.707	0.345
Illiterate	0.725	0.255
Literate up to Primary	1.299	0.340
Landless household	0.138***	0.104
Marginal household (<0.5 acre)	0.143***	0.072
Small household (<1.0 acre)	0.192***	0.103
SCs	0.277***	0.110
STs	0.051***	0.031
OBCs	0.445**	0.175
Total Farm Income	1.000***	0.000
Constant	10.416	8.333
N	400	
Log Likelihood	-220.680	
Pseudo R2	0.2004	

Sources: Sources: Primary Survey, 2016 Note: Statistically significance level: *** indicate 1 percent level, ** indicate 5 percent level and * 10 percent level. Here dependent variable as household receiving formal sources loan equal to 1 other wise zero.

The result shows that if the households belongs to scheduled caste or scheduled tribes there are less chance to get loan from formal sources as compared to the higher castes. Farm income of the households has significant relationship with the access of formal loan in the rural villages of Odisha. Except the variable of caste OBCs, all variable of the model which are highly significant to influence the access of loan from formal credit in the villages.

4.7 Inequality of Assets Holding: The inequality of assets calculated by the Gini Coefficient. The poor households of the rural areas composite some assets like home based necessary items, livestock, farm assets used for the agriculture. Among the social groups normally scheduled caste and scheduled tribes are poor in economics condition than the higher caste. The main assets of lower caste as like livestock and domestic animal. Average total assets value (in Rs) of the households in the study village describe in **Table 4.33**.

The Gini Coefficient of total assets holding by the households across the villages and social groups mentioned in **Table 4.34**. Among the villages inequality comparatively more in

Kanikapada. The Gini value for the Kanikapada village is 0.1969, followed by the village Rahania (0.1269), Mukundapur (0.1146) and Chudamani (0.0427). In the Chudamani villages on assets holding not seen much inequality. In this villages on an average assets value is Rs. 21,811. The social groups wise inequality also measure on the assets holding of the study village explain that among the other caste inequality much more than the other caste. It is explain that the total assets is among the higher caste concentrated in the some households and other have very less. So the inequality value shows 0.7954. In the other backward caste inequality is very low as compared to scheduled tribe and higher caste. Among the scheduled caste households assets inequality also less than the scheduled tribes. On an average total assets value in the current date as Rs. 20,073, among the social groups it is for the scheduled caste 17,116, scheduled tribes Rs. 22,516, other backward caste 21,564 and higher caste Rs. 22,009. In the village wise at Rahania average households assets holding Rs. 29,906 which is highest among the villages as followed by the villages Chudamani (Rs. 21,811), Kanikapada (Rs. 14,392), Mukundapur (Rs. 14,188). The Composition of total assets of the household from the three sources describe in **Appendix 4.29**.

Table 4.33 Current average value of assets (in Rs) holding by the households

Name of villages	Scheduled Caste	Scheduled Tribes	Other Backward Castes	Others	All Caste
Kanikapada	14778	9693	18424	15039	14392
Mukundapur	8648	11682	17978	19272	14188
Rahania	19497	92034	27103	36804	29906
Chudamani	22449	-	22261	19062	21811
All villages	17116	22518	21564	22009	20073

Sources: Field Survey, 2016. Note: Total assets is the summation of home based necessary assets, livestock and poultry assets and agriculture equipments.

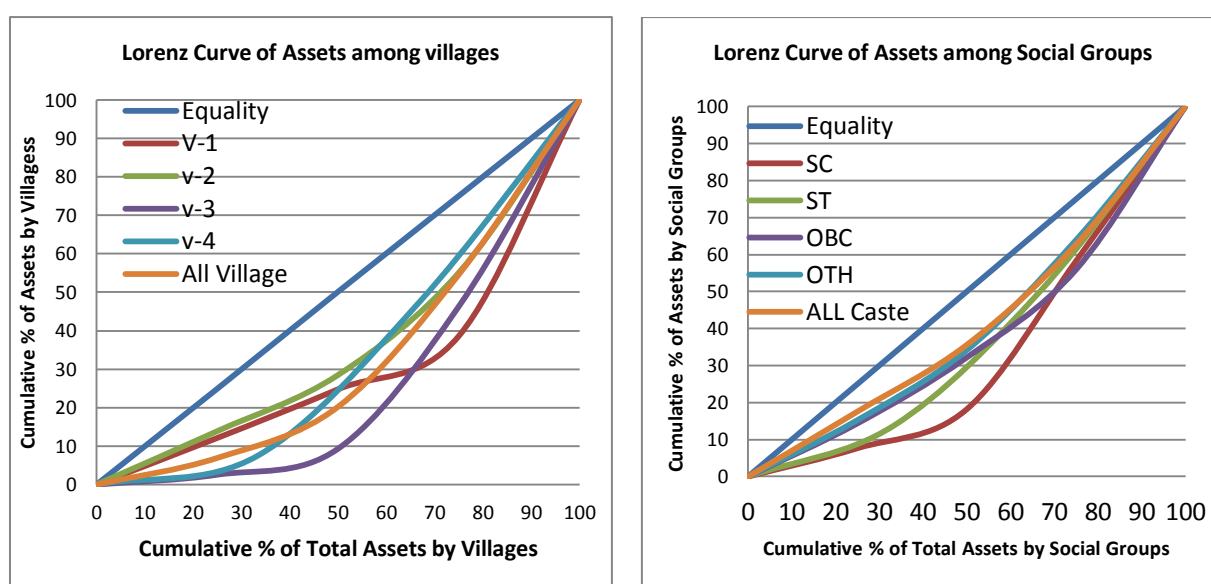
The large percentage of assets composed to total assets counted from necessary items which is needed in the daily uses. In the village of Mukundapur we find that composition of assets in scheduled caste and scheduled tribes percentage of livestock like cows, goat, buffalo, sheep, pig, poultry etc share to total assets around fifty percent and forty per cent from the necessary items. However, in the higher caste like OBCs and OTH, around eighty per cent of total assets come from the necessary items. The graphical representation of the assets holdings in the villages wise and social groups by the Lorenz curve shown in **Fig.4.3**. Among the village inequality shown in figure more than the social groups inequality.

Table 4.34 Village and Social group wise Gini coefficient (GC) of assets holding

Name of Village	Gini Coefficient among the villages	Name of Social Groups	Gini Coefficient among the social groups
Kanikapada	0.1969	SCs	0.1218
Mukundapur	0.1146	STs	0.4102
Rahania	0.1269	OBCs	0.0705
Chudamani	0.0427	OTH	0.7954

Sources: Field Survey, 2016

By this curve we can able to says the concentration of assets in the among village located in one village than other. Like among the social groups except other backward caste and scheduled caste, other social groups are dearer to the line of equality.

Fig. 4.3: Lorenz curve of total assets holding among the villages and social groups

Sources: Field Survey, 2016.

4.18 Cost or Expenditure of farming/cultivation: The farmer income from cultivation has been discussed in the above and the expenditure will be discussed in **Table 4.35** and **4.36**. Out of total sample households, 271 households are cultivated the crops in last season and rest are not cultivate any crops. Among the village number of operating households was highest in Rahania and Mukundapur. In Kanikapada only 39 households out of total 100 sample of this village were cultivated paddy crops. The average area of land cultivates per

households taking all villages in aggregates 1.33 acre. The average highest land possessed per household at Mukundapur is 1.42 acre, followed by the villages of Chudamani 1.39 acre, Rahania 1.36 acre and Kanikapada 1.03 acre. In an average number of labour used by villagers per acre of land cultivate is 40 and in the village wise it is highest in Rahania (46), Chudamani (37), Mukundapur (35) and Kanikapada (37). But on the other hand, due to each of village farmer are cultivate more than one acre of land the unit of labour used more than the average. However, the present study based on the calculation of per acre agriculture land. So as per as land cultivate labour used by farmer households 40 per acre. The study also find that the average number of labour hire for cultivation by the farmer in Kharif season is 12 and from home supply or family support labour 27. The village wise labour hire by farmer mentioned that in Rahania 15labour, in Kanikapada 14 labour, Mukundapur 11 and Chudamani 10. The average number of labour supply from family is highest in village Rahania, followed by the village Chudamani, Mukundapur, and Kanikapada. The average labour cost (excluding family labour cost) from sowing to harvesting of cultivation of crops is Rs. 2,531. On the village wise it highest in village Rahania Rs. 2,838 and second highest village at Kanikapada Rs. 2,773, and lowest in Mukundapur Rs. 2,089. Apart of labour cost, other cost for cultivation like ploughing cost for cultivation on an average cost per acre is Rs. 2,152. The higher ploughing cost bear by the farmer in village Rahania and followed by the village Chudamani, Mukundapur, and Kanikapada. In Kanikapada ploughing cost is less than Rs. 1500 which is less than half of ploughing cost of village Rahania (Rs. 2,597) and Chudamani (Rs. 2,223). The average cost of fertilizer in the cultivation of one acre land as per as village operating land during Kharif on an average Rs. 2,036. The fertiliser include Urea, DAP (Phosphate), Potash, Ammonia etc., The fertilizer caste more in village Rahania (Rs. 2,426), then village Mukundapur (Rs. 2,055), Kanikapada (Rs. 1,969) and Chudamani (Rs. 1,552). Like the fertiliser, cost of pesticides spend by farmers more in village Rahania, followed by Mukundapur, Chudamani and Kanikapada. Most of the farmers uses their own seeds instead of purchase from Block or cooperatives. Because they are not supply in the proper time. Due to people are not much spend on irrigation, manure and other miscellaneous cost, so it will be jointly calculate in the other cost.

The total average cost of cultivation per households spend from sowing to harvesting excluding family labour cost in Kharif season is Rs.8,728. This is the cost of cultivation for one acre of land in the calculation of taking all village. The village wise total cost for farming was highest in village Rahania Rs. 13,337 and Chudamani and Mukundapur more or less as

equal to Rs. 9,943 and the lowest cost incurred by village Mukundapur only Rs. 7,826. The marginal or small farmer households, not interested to cultivate the crop like paddy due to the cost of cultivation increase year by year. Most of the landless and marginal farmer are leasing-in land and bound to cultivate the land for the supply of food to their family only. They say we are not interested to cultivate the crops in coming period because of the cost of cultivation more than output. So instead of cultivation we can buy the paddy for our family consumption. So that around 137 households or 34 per cent of households do not cultivate any crops in the current period.

Table 4.35 Price paid (per acre) for agriculture inputs in last Kharif season village wise

Indicators	Kanikapada	Mukundapur	Rahania	Chudamani	All villages
Number of households cultivate in last Kharif (number)	39	81	81	70	271
Average area of land cultivate per HHs(in acre)	1.03	1.42	1.36	1.39	1.33
Average total labour needed (number)	37	35	46	37	40
Average number of labour hire (number)	14	11	15	10	12
Average labour supply from home (number)	23	25	31	27	27
Average labour cost for cultivation (Rs)*	2773	2089	2838	2523	2531
Average ploughing cost (Rs)	1451	1870	2597	2223	2152
Average Fertilizer cost (Rs)	1969	2055	2426	1552	2036
Average Pesticides cost (Rs)	215	300	487	274	342
Average seeds cost (Rs)	333	40	127	87	112
Average Carrying cost (Rs)@	1339	1244	1128	1128	1195
Other (miscellaneous)#	799	370	118	23	249
Average total cost (Rs)	8843	7826	9943	8173	8728

Sources: Field Survey, 2016. Note: * excluding family labour used in cultivation; @ it include Tractor as well as carrying by shoulder called Bharua cost; # indicate the summation of cost manure, irrigation and other all cost paid for cultivation

In the **Table 4.36**, social groups wise total farming households of the respective village higher in scheduled caste, followed by other backward caste, OTH caste and scheduled tribes. Although the farmer belongs to scheduled caste more land possessed but the average land possessed by scheduled caste less than the other backward caste and OTH. On average, only 1.27 acre of land cultivated by scheduled caste in Kharif season and for the scheduled tribe, it is 1.25 acre but for the OBCs and OTH, it is 1.42 acre and 1.40 acre land respectively. Total

number of labor used for the cultivation of one acre land by social groups wise more or less around 40. The hiring labour per acre among the all social group around 12 number, except scheduled tribes farmer (8 labour). It is varies due to family labour more support in the rural areas than the hiring. Average labour cost per acre bear by farmer (excluding own family labour cost) of all social groups as Rs. 2,531. Labour cost per acre in OTH caste much more than the lower caste like SC/ST. Because lower caste farmers work more days in farming due to their main occupation as casual labour.

Table 4.36 Price paid (per acre) for agriculture inputs in last Kharif season Social groups wise

Indicators	Scheduled Caste	Scheduled tribes	Other backward caste	Others	All villages
Number of households cultivate in last Kharif (number)	117	28	88	38	271
Average area of land cultivate per HHS(in acre)	1.27	1.25	1.42	1.40	1.33
Average total labour needed (number)	39	38	39	41	40
Average number of labour hire (number)	12	8	13	12	12
Average labour supply from home (number)	27	30	26	29	27
Average labour cost for cultivation (Rs)*	2260	1492	2809	3160	2531
Average ploughing cost (Rs)	1954	1934	2225	2626	2152
Average Fertilizer cost (Rs)	1966	2229	2102	1896	2036
Average Pesticides cost (Rs)	335	301	373	307	342
Average seeds cost (Rs)	120	66	139	57	112
Average Carrying cost (Rs)@	1143	1501	1153	1210	1195
Other (miscellaneous)#	238	89	166	577	249
Average total cost (Rs)	8140	7378	9229	9867	8728

Sources: Field Survey, 2016. Note: * excluding family labour used in cultivation; @ it include Tractor as well as carrying by shoulder called Bharua cost; # indicate the summation of cost manure, irrigation and other all cost paid for cultivation

The ploughing cost bear by OTH and OBC caste was more than the scheduled caste and scheduled tribe. Because the scheduled caste and scheduled tribes plough their land by the traditional way used by bullock and wooden in a village called *hall-langalo*. So the ploughing cost of scheduled caste and scheduled tribes around Rs 1,950. whereas for OTH caste it is Rs. 2,626 and OBCs Rs. 2,225. The average fertilizer cost including the cost of Urea, DAP,

Potash and Ammonia (i.e., *anusaro*) etc on an average Rs. 2,036. Among the social groups highest cost bear by scheduled tribe (Rs. 2,229), other backward caste (Rs. 2,102), scheduled caste (Rs. 1,966) and others (Rs. 1,866). Social groups wise cost for the pesticides and seeds are not much than the other cost. On an average, per acre cost bear by farmers (paid out cost which paid by the farmers excluding family labour cost) among the social groups was higher in OTH caste and other backward caste (OBCs). Scheduled tribe spend per acre for cultivation on Rs. 7,378 as compared to scheduled caste Rs. 8,140. The other caste (OTH) spend Rs. 9,867 for one acre land cultivation in the last Kharif season as compared to other backward caste Rs. 9,229.

4.9 Summary of Chapter:

This section of the study focus on the various inter related indicator which can be affect to the labour markets The overall picture of the analysis of labour market and study on various angle on the relationship with labour markets. On the first section how land ownership attached to the occupation of rural landless and agricultural labour are discuss. The inequality of land ownership among the social groups describe that Other caste (OTH) more unequal on land distribution than scheduled caste and other backward caste. Lower caste ownership holding over all households around same but among the higher caste land distribution are unequal. The socially backward caste like scheduled caste and scheduled tribes have no land or marginal land holding, they operates tiny plot of land or leasing-in land from the landlord on specially share cropping. The tenancy structure of rural Odisha among the social groups describe that more than 44 per cent of scheduled caste cultivate the land by leasing-in process as compared to 33 per cent by OBC and 12 per cent of STs. More than 32 per cent of farmers in the study village are pure tenants, who are only leasing -in land cultivate as compared to mix tenants around 40 per cent. Therefore, they are work as casual labour in whole year. The income from the farm from the cultivation of crops is only supported by the family for consumption. On the sharecropping, they are cultivated because they are not hiring the labour for cultivation due to it is supplied by family labour. because labour cost is the major cost of farming. The income of casual agriculture labour more from farm than nonfarm and the non agriculture labour earn more income from nonfarm than farm. The proportion of income from both casual agriculture labour as well as casual non agriculture labour come from the daily wage labour than the other activity. The subsection of farm and non-farm income sources explain in the second phase of the study of interlinked transition. In the section third debt of the farmer households explain, which cover the formal

and informal sources of debt in last one years. More than 82 per cent of households taking loan from the informal sources loan as compared to from loan. The dominant sources of loan support by the informal sources like money lender, landlord or rich person, input traders. Scheduled caste and scheduled tribes are receives proportionately more loan from informal than formal sources. The average loan amount from informal sources is around Rs. 35,000, whereas across the social groups OBCs are indebted more than the other social groups. They are prefer to take loan from informal sources due to it is easily find and paid as per as the income.

EMPLOYMENT AND WAGE DISCRIMINATION IN RURAL ODISHA: AN ANALYSIS OF SECONDARY DATA

5.1 Introduction:

Social exclusion and caste discrimination continues to be a major problem in India. The Indian economy has grappled with the legacy of caste-based discrimination and social exclusion. Despite social and legal interventions by the policy makers and the government, caste discrimination has still not been eradicated from the society. The access to free and restriction less labour relation in the employment process and their relation to the global supply and demand of labour, as well as the country-specific condition has become a serious problem in India (Lerche, 2007). The way in which the bonded and forced labour of the country faces distress in both, access to work and wage, is described in empirical studies of India. The neo-liberal globalisation process is not free and labour is concentrated with the labour relation in general on the country-specific conditions. The employment structure of Indian economy has changed with the changes in occupational concentration. The massive change of structure in labour market from agriculture to non-agriculture on the employment basis has been slowly diversifying from the early 1990s. These change from farm to non-farm accounted the wage inequality especially in the organised sector of the economy (Srivastava and Manchanda 2016). They also explain how the labour market faces problems in the process of development and how the inequality will rise in the economy simultaneously with the progress of the country.

The inequality in the labour market on the basis of wage is not a new phenomena. It has been a great problem in the history. Labour class have been repeatedly exploited by the bourgeoisie class. Karl Marx explains the details about the exploitation of labour like an animal in his book "*Das Kapital*" (1867). The proletariat groups find the remuneration of only the sale of labour power despite their productivity. So the rich become richer and poor become poorer in the society. This system is not only limited within the capitalist society but has also spread to the socialist societies. So, the inequality in the society becomes larger. The underdeveloped and developing countries face the problem of inequality of asset holdings and society based problems. There are two problems in the inclusive progress of a country. First, some people are not ready to participate the progress of the country. They think about self-progress and deny to participate in the progress of the society or the progress of neighbour. Second, people tried to participate in the mainstream process of progress of the

country, but are denied to participate in the process. So, with respect to both the views, rural areas are more affected than the urban areas because the rural economy is controlled by the village community. The rural economy is community-based and it follows the hierarchy that exists in the society. Indian economy is socially regulated in which some of the elite people take the decision. The divisions and discrimination on the basis of caste, religion and gender perform new 'regulatory functions'. Most of the people from scheduled castes and scheduled tribes work in the informal economy. The informal economy is not regulated by the government or the state, but it is socially regulated. In this social regulation caste and caste-based organisations play an important role. These old identities do not go away with economic progress. They perform new functions in the economy (Barbara Harriss-White, 2003).

In this chapter we will attempt to examine the extent of discrimination in rural labour market in Odisha by examining the secondary data. It basically explains the wage gap of casual labour and the gap among the social groups. The causes of wage discrimination has been measured by the decomposition methods, which enables us to know the level of discrimination concentrated on the different determinants. So it will help us to know how the wage gap will be reduced and how it can reduce the discrimination in rural labour markets specially casual labour or daily wage labour market.

5.2 Nature of wage inequality Persisting to Rural India:

The income of farmer varies from one farmer to the other on the basis of the structure of farm land holding and assets. In some states of the country, a section of a farmer and rich peasants called *Zamindars* or landlords, because of the huge land holdings, receive significantly large income from their cultivation apart from the non-farm income. These household uses advanced technology as well as modern farm equipments in the production process. So the income from farming is more profitable and they are still dependent on agriculture as a main source of income. The poor household are exploited in this region and are engaged in farming as a casual labours in this cultivation process. The actual profit goes into the pocket of the landlords. The poor household are unable to diversify the occupation from agriculture to non-agriculture in the specific period of time because the poor farmers are unskilled and semi-skilled labourers. This is one of the major reason for the wage inequality in the rural areas despite the fact that the agricultural and non-agricultural wages are determined by the demand and supply of the total labour force of the region.

The region wise inequality in wages as an economic factor is not the biggest obstacle for the society and its progress. But if there is a difference in wage due to caste, gender and community, It becomes the prime problem in the progress of the society. The difference of wage on the basis of caste both in rural and urban labour market has been explained by many researchers. Madheswaran and Attelwell (2007) explain about the wage disparity between rural and urban, between social groups and gender. The scheduled caste and scheduled tribes are getting lesser wage for the same work despite having same skill and profession. They also identified that SC/ST are getting 15 percent lesser wages than the others in the same profession (Madheswaran and Attewell, 2007). The discrimination is not limited to the wages but also it is spread at the door of those providing employment. The private sector discriminates the schedule caste candidates more than any other caste while giving them jobs. So, discrimination in the labour market still exists in employment as well as in the wage gap, both in rural and urban labour market. The private sector company prefer to provide a job to the higher caste than to the lower caste (ed. Thorat, Newman, 2010:16)

Discrimination exists not only because of the lack of equal chance of benefit but also due to the "lack of economic incentives" (Akerlof, 1976). Due to income distribution skewed along with the caste line, the division of labour are unequal. The Marxian approach towards institutions shift the focus from the efficiency aspects. Both classical and Marxian theories are based on two dialectical relationships: (a) Forces of production (means of production and technology); and (b) Relation of production (role of the institution in an economy).

5.3 Extent and Level of wage Inequality: The unorganised sector continues to account for major share of the workers in India, but the share of it to national GDP or national income fell from 64 per cent to 57 per cent from 2004-05 to 2011-12. It happened due to significantly diminishing share of income earnings of the majority of workers¹. The above figure shows the declining share of wages in net value when added and compared to the share of profit is same within the organised factory sector, specifically after the 2001-02 year. One of the major cause of wage inequality between the organised and unorganised sector is due to the wage difference in rural and urban, formal worker and informal worker. The workers who are working as a casual labour have their income changed from time to time and person to person. So, the income of the informal labour changes with the change in the demand and supply of workers. The wage gap prevails not only in the formal and informal labour cases,

¹ See details for the link to Sona Mitra: Dimension of wage inequality in India. <http://www.cbgaindia.org/wp-content/uploads/2016/06/Dimensions-of-Wage-Inequality-in-India-1.pdf>

but also it changes on the basis of rural and urban, male and female, caste basis, and community basis. Wages for casual workers as a percentage of regular wage workers increased from 37 percent in the early 1990s to 40 percent in 2011-12. The discrepancy between regular and casual work is also evident in rural and urban areas. According to the latest available data, the wages for casual work in urban areas is 1.2 times higher than casual work in rural areas and wages for regular jobs is around 1.7 times higher in urban areas, compared to rural areas (Mitra, 2016).

Apart from reduced share of wages in national income, the above wage differences across regions, contract of employment and across gender play a major role in determining the extent of wage inequality in India. There also exists a sectoral wage differences, primarily across the agricultural and non-agricultural occupations as well as between the private formal and informal sectors. Given, the gaps in wages across these several dimensions, it is evident that closing these gaps by increasing real wages would go a long way towards improving wage inequality in India. It would also lead to an increase in the share of wages, which would then work towards reducing the overall inequality, both wage and consumption, by meeting out a better redistribution of national income. However, it is also equally important to improve the rate of growth of wages, adjusted for inflation, over the next few years, in order to take care of these discrepancies.

India, became a country with high economic growth during this period with an average economic growth rate higher than 8% during the period. The growth of the country was shared by the three major sector's income. By looking at the different changes in the incomes of rural households, the type of economic growth and the impact of income growth on the distribution of society we get to know about the gap between rich and poor. Among the different income sources, income from agriculture, agricultural labour, business and salaries holders registered a lower growth rate. The average household's income from agricultural labour registered the lowest when compared to the other sources of income. We also find that more households did not earn incomes from agricultural labour in 2011-12 as compared to 2004-05. It could be the reason for the slow growth of agricultural labour income despite the rural wages registering a positive growth during the period (Ranganathan, Tripathy and Rajoria, 2016)

5.4 Caste basis wage disparity: The caste based wage differential is more in the rural areas than the urban. disparity of wage gap emerge in the form of worker skill and qualification. But in the informal sector, it is determined the type of work. That indicates that the average wage for all worker is same for the specified period of work. But the gap between wage of worker varies on the basis of social division like caste, gender, religion and group basis. Although the difference is lesser in urban areas as compared to the rural but the wage difference is still found in many informal sector works. In urban areas, the wage for construction worker varies according to the gender basis. The wage difference will be found, when the type of work is different, but even if the work is same, wages vary from person to person, it is the problem of the humiliation of one person over other.

The rural areas are more affected than the urban areas in the payment of wage to the labour. Due to this people in rural areas are more unemployed and this discrimination does not have much impact on the working groups. People of rural areas think of working and maintained their family against hunger. Even today, peoples are fighting against deprivation and hunger. In some village of my area of study in Odisha, it found that people are forced to migrate for work to nearby town for the upliftment of their family from poverty. They prefer to take their family as the gross income of the family will be more than that of a particular person income. Some people work in the brick industries, where the parents work in brick making, their children help the parents in carrying the brick from one place to another. As they work together, they get around five hundred rupees per day, otherwise, if one man works, he will get only 250 rupees. The wages in this type of informal work, the wage gap does not vary much among the social groups, but on the gender basis.

5.5 Disparity of wage on the basis of Class and Gender: The income of the poor people is determined on the basis of their employment s. more than 50 percent of workers are engaged in the unorganised sector, the employment and income from that is not fixed. The disparity of the wage on the total income count will be different in two ways: First, on the basis of caste and gender and on where the labour is employed and how much labour employed. The research question is to find out the percentage of how many trained labour work in different sectors from the caste wise and gender wise perspective. If the chance of getting a job or employment in the specific sector is discriminatory, on getting the job the income of these people will be different. We take an example, with the same qualification and same skill two people apply for a job, one is from a higher caste and another from scheduled caste, the employer prefers to provide the job to higher caste giving the excuse of bad performance of

the person from the lower caste in the interview. So the scheduled caste candidate does not enter the job, so how can we say that the income of the household has become same in the society? Here we can say on the basis of employment, the wage or income varies according to the social position that comes from which caste, gender and community. Secondly, we explain that due to he is a lower caste, he will get low-level work than his deserves with respect to his qualification and skills. Then he automatically gets low wages. In this, we cannot say about the discrimination in wages for scheduled caste and higher caste because it differs according to the level of the job. Which is the research point for the access to a job by scheduled caste and higher caste rather than the income and wages.

5.6 Major factor for Wage inequality in Rural India: The rural areas are not regulated by the constitutional law and rule. Because after 69 years of Independence, untouchability, caste-atrocities, discrimination on the basis of caste is still found in the Indian society. People do not choose their occupation by themselves, it is determined by the dominant caste person in the region. We can say that even today the system like slavery exists for the lower caste people. Some lower caste people during the study of villages in Bhadrak district responded that that, as they belong to lower caste-like *Dhaba* and *Barika*, they have to work only in their caste based occupation. They cannot open any shop except salons, and laundry. So, due to their caste in the village they cannot shift one occupation to other but when they change the place of work like outside the village where their identity is unknown they can do it. They are still working as a bonded labourers for higher caste people in return of some paddy or money on an yearly basis. The poor people express that, we are very poor, due to our caste also. We cannot teach our children as the higher caste educated people deny teaching our children. No doubt, some of our caste are doing a good job, but they change their residence from our village to another place where they will not be treated like an outcaste and will not face discrimination like in village. In the rural areas, situation are very sorrowful with respect to caste based discrimination. They cannot demand higher wages, lower caste cannot demand higher wages for the specific work. The caste wise discrimination on the basis of employment and wage earning is different in my village of study because some villagers said that the type of discrimination depends on the type of work and the location of work. So on the basis of this wage and employment varies across the social groups. This type of discrimination will not change suddenly in the societal point of view. Because rural areas are regulated by the village law, in most of the cases the higher caste decides, what will be done or what shall be done for the village people. The majority of people's views will only be

counted when the majority of people belong to a higher caste. Otherwise, all decision taken by the lower castes are denied by the higher castes. In these cases, higher caste plays a trick, if someone of the lower castes agitate about the issues, the higher caste people provide that person with some extra benefit so the fight against any issues will slowly vanish. This way the higher caste people control the all aspects of the village level activities and passes on this process from one generation to the other generation in rural areas. The discrimination of wages among the social groups and how there is this much gap in wages among the workers as casual agriculture as well non agricultural work describe in the next subsection of this chapter.

5.7 Social groups wise different wages of workers: First we analyze the average nominal wages of workers in 68th NSSO (2011-12) period given in **table 5.1**. Among the social groups average nominal wages of casual labour is Rs. 118 per days which is higher than the casual agriculture labour in 2011-12 in Odisha. However, caste wise wage inequality existed in both casual labour as well as casual agriculture labour. Among the social groups scheduled tribe's average wages were Rs. 107 for casual labour and Rs. 92 for casual agriculture labour in rural areas. On the other hand OBC labourers get marginally less wages than the scheduled caste in rural Odisha. Among the social groups others caste's (known as higher caste) average per days wages much higher than the other three social groups. On the national figure average wages Rs. 138 for casual labour and Rs. 122 for casual agriculture labour. In comparison to these social groups, STs casual labour average wages per day Rs. 114, for SCs it is Rs. 127, for OBCs it is Rs. 143 and for OTH Rs.141. Among them, the average wages of OBCs is higher than all other social groups. However, working in the agriculture labour average wages per day for STs Rs. 101, SCs is Rs. 127, OBCs is Rs. 125 and OTHs Rs. 124.

Table 5.1 Average nominal wages (Rs) of workers in rural Odisha and India

Social Groups	2011-12 (68th)						2004-05 (61th)					
	Odisha			India			Odisha			India		
	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL
STs	107	92	118	114	101	138	34	32	38	42	37	51
SCs	123	112	133	139	127	155	40	39	50	49	44	57
OBCs	120	110	152	143	125	173	39	35	61	51	43	66
OTH	133	119	195	141	124	225	46	43	82	51	44	94
ALL	118	105	145	138	122	173	39	36	54	49	43	67

Sources: Unit level calculation from 68th and 61st NSSO. Note: CL-casual Labour, CAL-casual agriculture labour, ALL-all casual worker/labour. It is average nominal wages per days in Rs. For descriptive statistics see the Appendix 5.1.

Among them scheduled caste's casual agriculture average wages are higher than the all social groups as the schedule caste people work more in the agriculture field than other field. In 2011-12, rural Odisha average wages of both casual labour and casual agriculture labour across the social groups was lower than the national average wages of each workers as well as social groups.

Secondly in the analysis of 2004-05 period, average wages was within two digit. In Odisha, both casual labour and casual agriculture labour wages were less than Rs. 50 per days for all social groups. Casual labour's average wages was Rs. 39 for all , and for the casual agriculture labour it was Rs. 36. Among the social groups STs got less wages in compare to other all social groups. In the national figure average wages of casual labour and casual agriculture labour were Rs. 49 and Rs. 43 per days. Generally, labourer who work in casual labour sector get higher wages than the agriculture work. Because in the agriculture season supply of labour increase for the short period of time and for that the wages of casual labour gets lesser than the casual non-agriculture labour. In rural Odisha, small and marginal farmer cultivate the crops on their own with their families family rather than buy the labour. So the demand for labour is less than the supply of labour for this period.

The study of descriptive statistics on 2011-12 in rural Odisha, describe that minimum average wages for casual labour Rs. 21 and maximum is Rs. 357 (see **appendix 5.1**). The minimum wages among the social groups of casual labour is Rs. 30, Rs. 21, Rs. 40 and Rs. 50 for the STs, SCs, OBC and Other caste respectively. On the other hand maximum wages of casual labour is Rs. 240, Rs. 357, Rs. 250, Rs. 246 for the STs, SCs, OBCs and Other caste respectively. In the analysis of casual agriculture labour average nominal wages range from minimum Rs. 23 to maximum Rs. 220. Among the social groups the minimum wages for SCs, STs, OBCs and other is Rs. 30, Rs. 23, Rs. 45 and Rs. 50 respectively. On the other hand the maximum average wages among social groups is Rs. 170, Rs. 211, Rs. 220, Rs. 190 respectively to same manner as above. The caste wise discrimination in the minimum average nominal wages for scheduled caste working in both casual labour as well as in agriculture it is much less than the other social groups. this may be due to the fact that scheduled caste people are forced to work at lower wages for the sustenance of their families.

The region wise average wages of casual labour and casual agriculture labour in rural Odisha is put in **Table 5.2**. Among the three region of Odisha, coastal belt is better off to some extent than other two region in terms of both infrastructure as well as economic condition. The

average wages of casual labour in coastal region is Rs. 143 per days as compared to Rs. 106 in southern and Rs. 109 in northern region. In the casual agriculture labour average wages for coastal Rs. 135, for southern Rs. 88 and for northern Rs. 94. Among the social groups, in scheduled tribes average wages of casual labour in coastal region Rs. 143, for southern Rs. 94 and northern Rs. 109, and in the casual agriculture labour it is Rs. 137 for coastal, Rs. 76 for southern and Rs. 95 for northern. In scheduled caste, average wages of casual labour Rs. 142 in coastal region, Rs. 111 for southern and Rs. 99 for northern region, in casual agriculture labour per day average wages for coastal region Rs. 135, for southern Rs. 98 and for northern Rs. 77. However, among the higher caste average wages of casual labour is much higher than the lower caste in each of the region of the state. The other backward caste's average wages is even higher than the other caste as they usually work in non-agricultural work like skilled and trend labour sectors.. The average wages of OBCs for casual labour Rs. 144 for coastal, Rs. 111 for southern and Rs. 115 for northern, on the other hand for the casual agriculture labour of OBCs it is Rs. 141, Rs. 97 and Rs. 106 respectively to region. Among the other caste average wages for coastal region of casual labour is Rs. 141, Rs. 108 for southern region and Rs. 117 for northern region. The other caste who are work as agriculture labour average wages of coastal region Rs. 129, southern Rs. 65 and Rs. 96 for northern region.

Table 5.2 Per days average nominal wages (Rs) of workers region wise in rural Odisha in 2011-12 and 2004-05

Social Groups	Coastal Region			Southern Region			Northern Region		
	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL
	2011-12								
STs	143	137	164	94	76	112	109	95	116
SCs	142	135	152	111	98	120	99	77	112
OBC	144	141	176	111	97	131	115	106	165
OTH	141	129	189	108	65	252	117	96	171
ALL	143	135	171	106	88	132	109	94	132
	2004-05								
STs	46	44	57	34	33	36	33	29	36
SCs	49	47	58	34	33	39	34	33	45
OBC	50	46	71	32	30	42	30	28	58
OTH	49	49	78	42	31	98	36	28	85
ALL	49	47	67	34	32	42	33	30	48

Sources: Unit level calculation from 68th and 61st NSSO. Note: CL-casual Labour, CAL-casual agriculture labour, ALL-all casual labour. It is the average nominal wages of casual workers in rural areas.

The district wise average wages of casual labour and casual agriculture labour in coastal region of 2011-12 has been explained in **Table 5.3**. In the coastal belt districts scheduled tribe population are not available except the some districts like Balasore, Jajpur, Nayagarh and Khurdha. But the social groups like scheduled caste and other backward caste's proportion to districts population is higher when compared to other castes. First we analyze the scheduled caste worker's per days average wages in 2011-12. Among the coastal districts scheduled caste casual labour's average wages was much higher in district like Cuttack, Bhadrak, Jagatsinghpur, which was more than Rs. 160 per days. In the districts like Jajpur and Balasore average wages is Rs. 116 and Rs. 125 per days which is lower out of the nine coastal districts of Odisha. On the other hand average wages of casual agriculture labour of scheduled caste Rs. 112. The districts wise highest average agriculture labour wages was in districts like Puri and Jagatsinghpur, where the average wages is Rs. 180 per days each of the districts. If the average wages for the scheduled caste agriculture labour was low in Puri that may be due to the fact that the proportion of population of the total districts population was much less than the other caste population. Secondly for the other backward caste average wages of casual labour in districts like Bhadrak, Cuttack and Kendrapada was much higher than the other coastal districts. In Balasore and Jagatsinghpur casual labour average wages is Rs. 132 and Rs. 134 respectively which was lowest among the other districts.

Table 5.3 Per days average nominal wages (Rs) of workers coastal districts of rural Odisha in 2011-12

Name of Dist.	Scheduled Tribes			Scheduled Castes			Other Backward Caste			Others			All Social Groups		
	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL
Balasore	130	130	138	125	123	127	132	131	177	120	113	148	125	122	142
Bhadrak	.	.	.	164	156	181	181	150	262	172	155	236	171	155	226
Kendrapada	.	.	.	156	.	174	160	.	189	167	.	208	160	.	189
Jagatsinghpur	.	.	.	160	180	167	134	136	200	157	154	239	156	165	194
Cuttack	.	.	.	171	.	181	129	170	153	135	150	160	146	159	164
Jajpur	130	.	130	116	115	142	166	127	191	148	120	253	132	116	186
Nayagarh	141	138	137	153	144	152	167	160	187	165	150	188	155	145	161
Khurdha	163	160	157	138	120	209	138	143	129	159	150	212	152	144	179
Puri	.	.	346	150	180	146	150	149	160	139	134	165	146	148	174
Odisha	107	92	118	123	112	133	120	110	152	133	119	195	118	105	145

Sources: Unit level calculation from 68th and 61st NSSO. Note: CL-casual Labour, CAL-casual agriculture labour, ALL-all casual labour. It is the average nominal wages of casual workers in rural areas.

On the other hand casual agriculture labour average wages much lower than the non agriculture labour wages. In Jajpur and Balasore average wages per labour was Rs. 127 and Rs. 131 respectively. Lastly, the other caste who mainly work more in casual non agriculture labour the average wages in Rs. 133 and for agriculture labour Rs. 119. The average wages for the workers of casual labour in other caste is more in the districts like Bhadrak (Rs. 172), Kendrapada (Rs. 167) and Nayagarh (Rs. 165). The lower average wages per casual labour districts like Balasore, Cuttack and Puri. However, in the casual agriculture labour average wages per higher caste workers five districts more than Rs 150 per days out of nine coastal districts. The lowest wages paid to the workers of districts like Balasore and Jajpur respectively Rs. 113 and Rs. 120.

Table 5.4 Region wise Male and Female per days average nominal wages of Rural Odisha in 2011-12

Social Groups	Male			Female			Male			Female		
	Coastal Region						Southern Region					
	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL	CL	CAL	ALL
STs	144	137	162	130	.	178	99	80	116	78	65	99
SCs	144	136	154	128	128	129	116	102	127	92	85	92
OBC	151	146	188	81	95	90	118	107	146	95	78	99
OTH	142	129	187	109	190	224	120	80	228	77	60	314
ALL	145	136	173	111	122	140	111	94	137	89	74	115
	Northern Region						Odisha					
STs	114	98	118	96	88	107	111	96	121	90	80	107
SCs	113	87	125	76	68	78	130	120	140	93	89	94
OBC	121	112	176	79	82	99	128	120	167	91	81	98
OTH	131	106	184	86	86	117	138	125	192	86	81	223
ALL	116	100	141	88	82	99	125	112	152	91	83	113

Sources: Unit level calculation from 68th and 61st NSSO. Note: CL-casual Labour, CAL-casual agriculture labour, ALL-all casual labour. It is the average nominal wages of casual workers in rural areas.

The gender wise average wage inequality of casual labour and agriculture labour explain in **Table 5.4**. It is also explain the region wise variation of average wages among the social groups. First we analyze the coastal region male and female average wages. In coastal belt, the average nominal male wages of casual labour is Rs. 145 in compare to female which is Rs. 111. Which indicate the gender based wage inequality that prevails in the coastal districts among the casual labour. Among the social groups casual labour male and female wage gap is much more in OBCs than other castes. The agriculture labour average wages per days for the rural areas respectively Rs. 136 and Rs. 122 for male and female. Among the social

groups, scheduled caste male and female wage gap is not much when compared to the other two social groups like OBC and OTH. The large wage gap found between male and female in the OBCs caste. However, in the higher caste female get more wages than the male like Rs. 190 and Rs. 129 respectively.

Secondly in the southern region average wages of male and female is much lower than the coastal belt of rural Odisha. In this region, casual labour wages of male is Rs. 111, as compared to female get only Rs. 94 per days. Casual agriculture labour wages in southern region less than Rs. 100 per days. Among the social groups, scheduled tribes male and female wages of casual labour is Rs. 99 and Rs. 78, which is lower than other three social groups comparison of wages. Although per days wages of casual labour for male is more than Rs. 100, but female casual labour wages is less than male in all social groups. Among them SCs and OBCs female casual labour comparatively find more wages than STs and OTH castes. Thirdly, in the northern region of the state, male and female average wages is much better than southern region.

5.8 Wage Discrimination among the workers: The discrimination wages in this section, both casual agriculture and non agriculture labour in rural Odisha, will be measured through the Blinder Oaxaca decomposition methods. This section is based only on the unit level study of secondary sources and the next section is based on primary survey data. Wage inequality is found in both developed and underdeveloped states in India as well as abroad. The difference or gap of wages emerges from the two angles i.e., due to endowment factor that means human capital like education, skill, work experience and knowledge etc and another is unexplained factor also called social factor like due to caste wages are difference on the high or low and due to gender, like male are getting more wages than female for the same work, which is attached with the community or region belonging to certain groups or person. The details of the variables explain in **Box 5.1**. The unexplained factor like caste or gender causes wage differences and creates the inequality of wages among the different caste or groups for the same work. So, in recent scenario labour market inequality widening on the basis of coefficient factor or unexplained factor where social factor are more responsible for the determination of wages for the specific work. Madheswaran and Attewell (2007) observes that in the urban labour markets wage gap among the higher caste and lower caste is widening and both in public as well as private sector employment, lower caste are discriminate and they get 15 per cent lower wages as compared to higher caste at the same occupation or job (Madheswaran and Attewell, 2007). The present study focuses more on the

rural areas of Odisha based both secondary as well primary sources of data. As per as the methodological components of labour market analysis, the study focuses on the discrimination and endowment factor on wage determination of rural areas. The rural labour market is controlled by elite people or dominant people for the wage in the specific work rather than the supply and demand of labour availability of the areas. So the wage difference arises among the different occupation as well as varies person to person for the same occupation. That is presented on the name of explained factor and another is unexplained factor. The explained factor like due to the skill, work experience, educational level etc., are responsible for the different wages among the individual to individual. The unexplained factor where caste or gender difference is matter for the wages of specific work. So in these cases caste matters for how much remuneration will be yours for the given work.

The caste based labour market discrimination of the workers in rural Odisha is explained through the method of decomposition by grouping the social groups. We can find greater degree of average wages is determined by the identity to which the individual belongs to rather than his work experience, education, household size etc. The discrimination of wages due to caste matters more in scheduled caste in compare to the higher caste. It includes two pair of workers in the 2011-12 period of time. The study talks about three categories of workers i.e., casual labour, casual agriculture labour and all workers. The description of variables which is used in the decomposition methods explain in the **Box 5.1**.

Box 5.1: Description of variables for Decomposition Methods:

Variables	Description
Dependent variables: log per days wages (log_wageperdy)	It is per day average wages of per individual workers from current usual weekly activity status (CWS). I convert wages to log wages for reduce variation. So take log wages of workers instead of per days wages
Independent variables: Age (age)	Age is in years [Taking on the range of 15 to 64 years on the working age period of individual]
Age square (age2)	It is the square of current age of individual (in years)
Household size (hh_size)	It is the total number of family member of the households.
General education (gen_edu)	It is taking dummy each of the education status. It is categories seven types like Illiteracy (1), <i>Up to primary</i> (2+3+4+5+6), More than primary (7+8+10+11+12+13).
Illiteracy (gen_edudmy1)	If the individual illiterate then = 1 other wise 0
More than primary (gen_edudmy3)	If the individual literate up to primary then = 1 other wise 0
Land owned (land_own)	Land owned by households in (hectares) it is a continuous variables

Note: Italic categories are used as reference category in the regression models.

The study analysis focus in rural Odisha of the labour market. It is categories two type of workers like casual labour (all type of casual or daily wage labour) and casual agriculture

labour². The discrimination components compare among the four pair of sub categories of social groups. First compares among the scheduled caste and others (SC-OTH), secondly scheduled tribe and other (ST-OTH), thirdly scheduled caste and higher caste (SC-HC), and finally comparison of lower caste and higher caste (LC-HC). The whole casual workers are divided two section, those who work as daily wage labour called as casual labour and another who work as only casual agriculture labour. So, the study first focuses on casual labour and then casual agriculture and lastly taking all labour. It measure the discrimination among the four pairs of social groups in rural Odisha. First analysis of the rural Odisha's wage discrimination and then three region of Odisha are explained. So, each of the four pairs of social category and

5.8.1 Casual labour market discrimination in rural Odisha: The state is divided into the three region i.e., coastal (region-1), southern (region-2) and northern (region-3). Out of a total of thirty districts in Odisha, twelve districts come under southern region and nine districts come under each of the other two regions i.e. coastal and northern region. The inequality of wages can be easily observed and we can see that the scheduled caste /scheduled tribes find less wages in the given works. The pair of comparisons of mean/average wages of casual labour is explained in **Table 5.5**.

In this methodological calculation we use the log instead of nominal average wage of casual labour. It reduces the average variation among the casual labour workers wages. So we uses log average wages of casual labour in rural Odisha. However, If we analyze without log average, wages of casual labour (see **appendix 5.2**) the for scheduled caste mean wages is Rs. 121.71, for scheduled tribes is Rs. 104.43, and for others Rs. 132.51, for higher caste is (jointly taking both OBC and OTH) Rs. 124.54 and lower caste (jointly taking SCs and STs) Rs. 112.60. So the gap between the two pairs of wages like SC-OTH is Rs. 10.79, ST-OTH is Rs. 28.09, SC-HC is Rs. 2.82 and among the LC-HC is Rs. 11.95.

On the average, wage comparisons among the pairs of social groups³ suggests that forward caste or higher caste average wages are higher than the backward caste or lower caste. The

² As per as NSSO definition casual labour are taking from the current weekly activity (CWA) summation the code of 41+42+51 and casual agriculture labour are taking from only 51 from that and current weekly activity (CWA) and simultaneously taking current weekly status (CWS) of NIC 2008 code less than 03229 (who are treated as agriculture and forestry working labour)

³ The sample size of casual labour (CL) in rural Odisha in person as like scheduled caste (284 workers), scheduled tribe (326 workers), other caste 123 workers, higher caste (HC) 438 workers and lower caste 610 workers. So in the total sample size of the casual labour 1048 workers.

gap of mean wages is much more among the scheduled tribes (STs) and other caste (OTH) which is around Rs. 28 rupees. In the scheduled caste and higher caste wage difference is very less as compared to other pairs of casual labour i.e., Rs 2.82 rupees (more details see **appendix 5.2**)

In the analysis of Blinder Oaxaca decomposition⁴ result of casual labour market discrimination is explained in the **Table 5.5**. Over the study of all the pairs of average mean, wages differ due to caste matter much more than the endowment factor like education, skill or land ownership. Among the SC-OTH pairs, 19.13 percent of wages of casual labour is determined by the endowment factor which also called as explained factor. So the rest of the around 80 per cent wage different arises due to caste matter. So, for the casual labour working on a daily basis wages, scheduled caste get less wages due to the caste he/she belongs to i.e. scheduled caste. In the second pairs of ST-OTH, the average wage gap is much more than the previous or scheduled caste and other category.

Around 22 per cent describe that the wages are less due to their education, skill, household size, etc for the scheduled tribe than the higher caste, and rest of the 78 percent describe that it is due to them belonging to tribes and therefore they get less wages. So here around 78 percent face discrimination that arises from the wages difference among the ST-OTH. In the third pairs SC-HC, although the difference of average wages is less but here endowment factor values is -33.48, which indicates that just the reverse result of previous explanation. This indicates that although marginally wages of higher caste casual labour is more than scheduled caste but around 67 percent causes of different wages is explained by endowment factor. In the final pairs (LC-HC) of wage discrimination between the lower caste and higher caste, it is seen that only 1.06 percent explained the endowment factor for the

⁴ A positive number indicate the advantage to second name (basically higher caste or other caste) of the pairs of discrimination measurement and negative indicate that advantage to the first name (basically lower caste like SCs, STs) of the pairs. Let SC-OTH pairs if the mean average wage difference come positive then we can say SCs get less wages than OTH caste and if negative come SCs wages more than OTH. The result of decomposition taken from the original formulas of Blinder (1973) on the explanation of E, C, U and D. The endowment (E) component of decomposition is the sum of coefficient vector of the high wages group and low wages group. The coefficient (C) components of the decomposition is the sum of group mean of the low wage group and high wage group. The unexplained portion of the differential (U) is the difference in constant between the high wages and low wages group. The portion of the differential due to discrimination is C+U. The raw total difference is the sum of E+C+U. The unexplained component is the different in the shift coefficient (or constant) between the two wage group equation. The Blinder Oaxaca decomposition components explained that in tow angel (a) The mean difference of wages between the two groups as basically evaluated the high wages groups wage equation which is called or it emerge due to *attribute to the endowments* and (b) the difference between how the high wage equation would values the characteristics of low wage groups called as *attribute to the coefficient*, it should be emerge due to reflecting discrimination (See more Blinder (1973) and Madheswaran and Attewell 2007)

wage difference among them. On the other hand, around 99 per cent due to caste or caste matter for the discrimination of wages on the casual labour work in rural areas of Odisha

Table 5.5 Blinder Oaxaca Decomposition Result in Rural Odisha casual labour (CL) in 2011-12

Components of Decomposition	SC-OTH	ST-OTH	SC-HC	LC-HC
Total Difference (TD)	0.11	0.27	0.03	0.12
Endowments (E)	0.02	0.06	-0.01	0
Coefficient (C)	0.09	0.26	0.03	0.11
Interaction (U)	-0.01	-0.06	0.01	0
Raw Differential (R=E+C+U)	0.11	0.27	0.03	0.12
Adjusted Differential (D=C+U)	0.09	0.21	0.04	0.12
Endowment as % (E/R)	19.13	21.79	-33.48	1.06
Discrimination as % (D/R)	80.87	78.21	133.48	98.94

Sources: Unit level data from 68th NSSO 2011-12. Note: SC-scheduled caste, ST-scheduled tribe, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number in endowment (E/R) indicate advantage to forward caste and a negative number indicate advantage to lower caste.

5.8.2 Region wise Casual labour market discrimination: The average wages of casual labour among the groups of scheduled caste and others in the three region of the state shown that in coastal belt OTH caste gets Rs. 140.97 per day as wage whereas SCs get Rs. 140.56 (see **appendix 5.2**). On the other hand in southern region scheduled caste get more wages than the other caste i.e., Rs. 112.44 and Rs. 104.71 respectively, and in northern region it is Rs 118.45 for OTH caste and Rs. 96.90 for SCs. So in the three region among the scheduled caste and other, northern region wage gap is much more than the other two regions. In the second pair of social groups ST-OTH, wages respectively to region of scheduled tribes Rs. 146.26, Rs. 91.32, and Rs. 109.64, as compared to other caste average wages of coastal belt Rs. 140.97, southern region Rs. 104.71 and for northern region it is Rs. 118.45. In coastal region scheduled tribes get more wages than the other castes, where as in the other two regions other caste's wages are higher than scheduled tribes. In the third pairs of the social groups average wages is measured among the SC-HC. In this caste groups scheduled caste and higher caste wages more or less as equal to that the coastal and southern region. However, in northern region mean wage gap among the social groups is around Rs. 21 rupees. The scheduled caste average wages per days is around Rs. 97 rupees, whereas for the higher caste it is Rs. 118.10. In the last pairs of analysis, the average wages of casual labour in rural Odisha in the three regions, among the lower caste and higher caste it is shown that the lower caste marginally finds more wages when compared to higher caste in coastal region

but in the southern and northern region higher caste's wages are higher than the lower caste. The region wise average wages of casual labour of lower caste is Rs. 141.22 for coastal, Rs. 100.30 for southern and for northern region it is Rs. 106.27. On the other hand among the higher caste it is Rs. 140.57 Rs. 112.13 and Rs. 118.10 on the coastal, southern and northern region respectively. The details of the average wages of casual labour among the social groups see **appendix 5.2**.

The region wise caste based labour market discrimination in casual workers is explained in **Table 5.6**. Due to labour market diversification and engagement with timely availability of different occupation the workers in the rural areas of Odisha, wages also vary from place to place or region to region. So the region wise wages of casual labour among the social groups in rural areas can be studied in the **Table 5.6**, where it measures the causes of wage difference among them through the two components, either from endowment factor more or coefficient factor more.

Table 5.6 Region wise Blinder Oaxaca decomposition result in Rural Odisha casual labour (CL) in 2011-12

Components of Decomposition	Coastal	Southern	Northern	Coastal	Southern	Northern
	SC-OTH			ST-OTH		
Total Difference (TD)	0.01	-0.1	0.27	-0.06	0.14	0.11
Endowments (E)	0.01	-0.03	0.07	-0.08	0.1	0.07
Coefficient (C)	-0.01	-0.12	0.26	-0.1	0.04	-0.09
Interaction (U)	0	0.04	-0.05	0.13	0.01	0.13
Raw Differential (R=E+C+U)	0.01	-0.1	0.27	-0.06	0.14	0.11
Adjusted Differential (D=C+U)	0	-0.07	0.2	0.02	0.04	0.04
Endowment as % (E/R)	147.62	26.38	25.52	135.2	69.17	61.25
Discrimination as % (D/R)	-47.62	73.62	74.48	-35.2	30.83	38.75
	SC-HC			LC-HC		
Total Difference (TD)	-0.01	-0.02	0.26	-0.01	0.11	0.14
Endowments (E)	0.01	-0.01	0	0	-0.02	-0.01
Coefficient (C)	-0.03	-0.02	0.19	-0.04	0.11	0.12
Interaction (U)	0.01	0.01	0.07	0.03	0.02	0.03
Raw Differential (R=E+C+U)	-0.01	-0.02	0.26	-0.01	0.11	0.14
Adjusted Differential (D=C+U)	-0.02	-0.01	0.26	-0.02	0.13	0.15
Endowment as % (E/R)	-277	44.04	-0.42	-23.2	-13.98	-9.4
Discrimination as % (D/R)	376.6	55.96	100.4	123.2	113.98	109.4

Sources: Unit level data from 68th NSSO 2011-12. Note: Region-1(Coastal), Region-2 (Southern), Region-3 (Northern)

First in the study casual labour wages region wise on the comparison of SC-OTH, (scheduled caste and other). In coastal region, although marginally OTH caste gets higher than SCs, but the gap among them on the average wages is less when compared to other regions in the same pair of social groups. In the coastal region around 47 per cent explain wage difference arises due to endowment factor. However, in the southern region 26.38 percent believe in the effect on the wages of scheduled caste casual labour as endowment factor and rest 73.62 percent believe that it is due to the caste that they get less wages than the higher caste. So among the scheduled caste and other caste average wages explained by more than 74 percent is due to caste and rest explained it due their education, age, land ownership etc. Like the southern region, northern region situation happened more or less same among the scheduled caste and other. Secondly analysis the pair of ST-OTH, average wages of casual labour in the coastal region for minus 35.2 due to discrimination, which ultimately say that 35 percent wages explained by the endowment factor for the casual labour of scheduled tribes and rest by the discrimination factor. In the southern region discrimination factor's proportion is less than the northern region in the wages of scheduled tribes i.e., 30.83 explained by unexplained factor like caste in southern and 38.75 per cent in northern region. In the third pairs of the study of discrimination among the SC-HC, casual labour find that in the region of coast, higher caste get less wages than the scheduled caste and the proportionate share of unexplained factor is less than endowment factor. In the southern region scheduled caste get less wages for the causes of 55.96 per cent due to caste matters and rest due to their lack of education, skill, age factor. In the northern region, due to caste matter wages are different among the scheduled caste and higher caste. Lastly the study in the pairs of social groups LC-HC, in the coastal region lower caste get higher wages than the higher caste and the average wage gap proportion explained by the caste matter 23.2 per cent. That means that the higher caste people get lower wage in the coastal belt as they belong to higher caste. In the southern region although higher caste get more wages than the lower caste but due the caste matter on the wage determination 13.98 per cent and rest of due to endowment factor. The same situation prevails in the northern region where around 10 per cent believe that it is due to caste matters and rest of wage gap explained by explained factor.

5.8.3 Gender wise Casual labour market discrimination: The gender wise average wages among the different pairs of social groups is explained in **Table 5.7**. In this table wages are calculated on the log wages instead of absolute wages of casual labour per days in rural areas. The absolute wages per days among the social groups as well as the pairs calculated from the

decomposition technique is put in **Appendix 5.3**. In the male and female wage difference, comparison among the different pairs of social groups explain that, in pairs of SC-OTH, scheduled caste male get Rs. 128.20 and other caste male get Rs. 137.82 per days work in casual labour in rural Odisha. However, in the female casual labour, average wages of scheduled caste is more than the other caste female labour i.e., only Rs. 79.16 for higher caste female casual labour and Rs. 92.26 for scheduled caste female labour. In the second pair's study, in male's cases, higher caste male casual labour get more wages than the scheduled tribe's male labour and in the female cases just opposite scheduled tribes female workers get more wages than the other caste female labour. In the third pairs of social groups ,average wages of casual labour scheduled caste male labour got Rs. 128 rupees per as compared to higher caste Rs. 131. In the female cases average wages for both male and female casual labour in rural areas is almost the same. Lastly, in the LC-HC comparison of wages higher caste males as well as female get more wages than the lower caste male and female. The details of absolute figure of wages of both male and female put in **Appendix 5.3**.

Table 5.7 Gender wise Blinder Oaxaca Decomposition result in Rural Odisha of Casual labour (CL) in 2011-12.

Components of Decomposition	SC-OTH		ST-OTH		SC-HC		LC-HC	
	Male	Female	Male	Female	Male	Female	Male	Female
Total Difference (TD)	0.09	-0.13	0.28	-0.1	0.04	0	0.14	0.01
Endowments (E)	0	0.02	0.02	0.13	-0.02	-0.11	0	-0.01
Coefficient (C)	0.09	-0.11	0.29	0.01	0.04	-0.1	0.13	0
Interaction (U)	0.01	-0.04	-0.03	-0.25	0.02	0.21	0.01	0.02
Raw Differential (R=E+C+U)	0.09	-0.13	0.28	-0.1	0.04	0	0.14	0.01
Adjust Differential (D=C+U)	0.1	-0.14	0.26	-0.24	0.06	0.11	0.14	0.02
Endowment as % (E/R)	-5.07	-13.29	8.36	-130.3	-50.5	0	-2.75	-86.45
Discrimination as % (D/R)	105.07	113.29	91.64	230.3	150.5	0	102.8	186.45

Sources: Unit level data from 68th NSSO 2011-12 Note: Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs.

In the **Table 5.7**, social groups pairs of SC-OTH, other caste male casual labour gets higher wages than male of scheduled caste workers, but in female casual labour cases, higher caste female get less wages than the scheduled caste female which is known by the sign of the value of total difference i.e., (-0.13). However, the scheduled caste get lower wages due to endowment more than the discrimination factor. Like the male female cases causes of endowment factor responsible for 87 per cent for the difference of wages among the scheduled caste and other female casual labour. In the social groups pairs ST-OTH, male casual labour get low wages due to 8.36 per cent for the endowment components and 91.94

per cent due to their caste that they get less wages than the other labour. On the female labour cases scheduled tribes get more wages than other caste. Like in the other two pairs analysis the average wage difference arises among the lower caste and higher caste but caste matter are not as responsible for it as the endowment factors. So, in conclusion we can say that although the wage difference exists among the genders within the social groups but caste matters more in the male cases than the female labour cases for wage determination.

5.9 Agricultural labour market discrimination in rural Odisha: It can be stated that like the casual labour market's wages discrimination, nominal differences in wages of daily agriculture labour arises from the social groups. Although the average agriculture nominal wages in rural Odisha increases from Rs. 36 to Rs. 105 from 2004-05 to 2011-12 time period but the wage gap among the social groups is enlarging over the period. The average wage difference among the social groups (without log) reflects that other castes (OTH) got more wages from the agriculture work in rural Odisha than the other social groups. That means OTH got per days wages of Rs. 118.09, as compared to scheduled caste Rs. 110.64, scheduled tribe Rs. 87.07. In the comparison of higher caste (jointly taking both other backward castes and others) and lower caste (jointly scheduled tribe and scheduled caste) agriculture labour wages respectively were Rs. 115.12 and Rs. 97.81. For more details without log absolute average nominal wages of agriculture labour see **Appendix 5.4**.

Table 5.8 Blinder Oaxaca Decomposition Result in Rural Odisha casual agriculture labour (CAL) in 2011-12

Components of Decomposition	SC-OTH	ST-OTH	SC-HC	LC-HC
Total Difference (TD)	0.11	0.32	0.07	0.19
Endowments (E)	-0.06	0.03	-0.07	-0.02
Coefficient (C)	0.12	0.31	0.07	0.19
Interaction (U)	0.05	-0.02	0.07	0.01
Raw Differential (R=E+C+U)	0.11	0.32	0.07	0.19
Adjust Differential (D=C+U)	0.17	0.3	0.14	0.2
Endowment as % (E/R)	-54.78	8.48	-99	-8.24
Discrimination as % (D/R)	154.78	91.52	199	108.2

Sources: Unit level data from 68th NSSO 2011-12 Note: SC-scheduled caste, ST-scheduled tribe, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number indicate advantage to advantage to forward caste and a negative number indicate advantage to lower caste.

In the **table 5.8**, decomposition result enables that in rural Odisha agriculture labour in the pair of SC-OTH, around 46 per cent wage difference arises due to endowment and rest for the caste matter for the wage determination components. In the pairs of ST-OTH, caste explained

around 91.52 percent what is the wages of scheduled tribe and other. So here caste is a significant factor on the casual agriculture work.

5.9.1 Region wise wage discrimination of agriculture labour: The region wise average wages of casual agriculture labour explain in the **Table 5.9**. This is the log wage difference among the four pairs of social group like scheduled caste and other, scheduled tribe and other, scheduled caste and higher caste and lower caste with higher caste. The nominal wages of agriculture labour (see **appendix 5.4**), region wise in rural Odisha perceived that agriculture labour average wages varies region to region. this analysis cannot be applied to all the regions of Odisha on the given social group pair as some people in the region are not into agricultural work or re not available for labour. So among the pairs of SC-OTH, in coastal region average wages of scheduled caste Rs. 134.61 as compared to other caste Rs. 127.24. In this region we find that due to in the coastal belt scheduled caste workers do more work in agriculture and their average wages also higher than the other caste. However, in the northern region average wages of scheduled caste and other respectively Rs. 72.50 and Rs. 95.96. In northern region scheduled tribes agriculture labour's average wage is around Rs. 91, which is lower than the other social groups of the other region. The higher caste (jointly taking both OBC and OTH case) agriculture labour's average wages in coastal and southern region is marginally less than the scheduled caste but in the northern region they get much higher wages than the scheduled caste labour i.e., Rs. 106.94 and Rs. 72.50 respectively. In the comparison of lower caste and higher caste average wages except coastal belt in other two region agriculture labour wages for higher caste labour more than the lower caste. The details of the average wages of agriculture labour see **Appendix 5.4**.

The discrimination component analysis has been described in the **Table 5.9**. In the pair, discrimination is measured among the SC-OTH, in coastal region scheduled caste get marginally more wages than the scheduled caste. The higher caste get less wages than scheduled caste, this is due to the fact that higher castes occasionally work in agriculture or are not regular agriculture labour for the whole agriculture period. In this cases higher castes getting less wages is explained by 76.97 percent stating caste to be the reason and 23.03 percent explained that it was due to the endowment factor they are got less wages. In the southern region other caste get more wages than scheduled caste and here scheduled get lower wages as they belong to lower caste, as explained by fifty percent and rest fifty percent due to endowment factor. In the scheduled tribes and other caste comparison, only northern region data is put in the table. Here although the higher caste get more wages than scheduled

tribe but due to caste matter which the 12.87 percent explains and rest due to endowment factor. In the third pairs of study among the SC-HC, in coastal belt higher caste get less wages than the scheduled caste and here caste matters for the higher caste as explained by 16 per cent and rest due to endowment factor they are get less wages as compared to others. In the southern region although higher caste get less wages than the scheduled caste but the caste matter explains around fifty percent share and rest fifty percent due to exogenous factor like education, age, land ownership. The caste matters for the wages of agriculture labour for more than 70 percent and rest 30 percent due to their lack of education, skill, or age or land owned etc in the northern region of the state. In the last pairs of study LC-HC, in coastal region higher caste get lower wages than the lower caste and the low wages are explained by around fifty percent due to caste matters and rest fifty per cent by endowment factor. In the southern region lower caste get less wages, 15.18 explained by discrimination factor and rest endowment factor and in the northern region around 10 percent for discrimination factor or unexplained factor and 90 per cent due to endowment factor.

Table 5.9 Region wise Blinder Oaxaca decomposition result in Rural Odisha casual agriculture labour (CAL) in 2011-12

Components of Decomposition	SC-OTH		ST-OTH	SC-HC			LC-HC		
	Coastal	Northern	Northern	Coastal	Southern	Northern	Coastal	Southern	Northern
Total Difference (TD)	-0.04	0.36	0.08	-0.01	-0.04	0.46	-0.03	0.14	0.25
Endowments (E)	-0.01	0.18	-0.01	-0.03	-0.02	0.14	-0.04	-0.02	-0.03
Coefficient (C)	-0.09	-0.18	0.04	-0.03	-0.07	0.5	-0.04	0.16	0.19
Interaction (U)	0.06	0.36	0.05	0.04	0.05	-0.18	0.06	0.01	0.09
Raw Differential (R=E+C+U)	-0.04	0.36	0.08	-0.01	-0.04	0.46	-0.03	0.14	0.25
Adjust Differential (D=C+U)	-0.03	0.18	0.08	0.01	-0.02	0.32	0.01	0.16	0.28
Endowment as % (E/R)	23.03	50.67	-12.87	184.4	51.28	29.97	148.9	-15.18	-10.53
Discrimination as % (D/R)	76.97	49.33	112.9	-84.3	48.72	70.03	-48.9	115.18	110.53

Sources: Unit level data from 68th NSSO 2011-12 Region-1(coastal) Region-2 (Southern), Region-3(Northern). Due to non availability of data of agriculture labour in southern in pairs of SC-OTH and coastal & southern in the pair of ST-OTH, so I skip these region.

5.9.2 Gender wise discrimination of casual agriculture labour wages: The gender wise nominal average wages of casual agriculture labour in rural Odisha describes that among the only male labour gap of wages among scheduled caste and other caste is Rs. 6.44 i.e., scheduled caste get Rs. 118.54 and other get Rs. 124.98 per days. The scheduled tribe average wages is only Rs. 90.15 for the working of one days in the agriculture field. On the other hand when we compare the wages of male of higher caste and lower caste it is Rs.

123.87 and 102.79 respectively. In the female agriculture labour cases higher caste and lower caste average agriculture wages are Rs. 78.50 and Rs. 82.68 respectively. The scheduled caste female get Rs. 88.68 per days for the agriculture work in rural Odisha.

The discrimination components in the measure of wage gap among social groups within the male workers and within the female agriculture labour is explained in **Table 5.10**. The study finds out that not much wage difference arises among the scheduled caste and other caste male workers. In fact, the causes of endowment factor reduces wages of scheduled caste as explained by 45 percent when compared to scheduled tribes which says it is 99 percent due to endowment and only one per cent due to caste factor. In the pairs of SC-HC, agriculture male workers belonging to higher caste gets more wage than the scheduled caste but due to around 30 percent of unexplained factors like caste matter and rest for the endowment factor. So here the discrimination does not play vital role rather the endowment factor explains the larger portions in the wage gaps.

Table 5.10 Gender wise Blinder Oaxaca Decomposition result in Rural Odisha of Casual agriculture labour (CAL) in 2011-12

Components of Decomposition	SC-OTH	ST-OTH	SC-HC		LC-HC	
	Male only	Male only	Male	Female	Male	Female
Total Difference (TD)	0.1	0.36	0.08	-0.07	0.23	-0.03
Endowments (E)	-0.06	0	-0.05	-0.1	-0.03	0.02
Coefficient (C)	0.09	0.35	0.07	-0.01	0.22	0
Interaction (U)	0.06	0.02	0.06	0.04	0.04	-0.04
Raw Differential (R=E+C+U)	0.1	0.36	0.08	-0.07	0.23	-0.03
Adjust Differential (D=C+U)	0.16	0.37	0.13	0.03	0.26	-0.05
Endowment as % (E/R)	-55.71	-1.01	-69.5	142.62	-15.29	-71.4
Discrimination as % (D/R)	155.7	101	169.5	-42.62	115.29	171.4

Sources: Unit level data from 68th NSSO 2011-12 Note: Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs

In the rural areas of Odisha female labourers are not much at work in the non agriculture activities rather they sometimes work in agriculture in the villages. In coastal belt female labourers get less wages than the male for the same work. The low wage rate for female workers is also a low level of female work participation in rural Odisha. The rural female labourers are unskilled, illiterate and lack work experience and receive reduced the wages for the same work as compared to male. Although caste is a part of wages determination but endowment factor explains more about the wages for female as compared to the discrimination factor.

5.10 Conclusion:

This section of the study describe about the rural Odisha's caste based discrimination which is calculated from secondary dada. The level of wage inequality among the social groups is caused due to discrimination components more than the endowment. The average nominal wages among the social groups in rural casual labour is less in scheduled caste and scheduled tribe than the higher castes. The average wage gap due to caste is explained by more than 90 percent. In the pairs of discrimination measure, on average wages scheduled caste get less wages than the other caste due caste factor. The average wage difference among them is explained by 80 percent as being caste matter and rest 20 percent for the endowment. This also varies for the daily wage labour of agriculture and non agriculture. The region wise caste discrimination was also explained in this section, which enables that among the scheduled caste and other caste in coastal belt discrimination causes is explained by 76.97 percent as compared to 46.53 per cent in the northern region of the state. So it is proved that caste based discrimination in rural labour markets (both in agriculture as well as in non agriculture) exist in the 21st century also.

WAGE DISCRIMINATION IN RURAL LABOUR MARKETS: ANALYSIS BASED ON PRIMARY DATA

6.1 Introduction:

The regional disparities in rural Odisha is a vital problem in the development of the state. The most underdeveloped districts are located in the southern region of the state. It does not mean that the northern and coastal belt districts are developed. Because in the coastal district of Balasore (Nilgiri sub division), Kendrapada and Bhadrak districts also remain underdeveloped districts of the state. The tribal population dominant districts like Mayurbhanj and Keonjhor are also extremely underdeveloped . So, due to the regional imbalance in the development of different part of the state people are suffer from poverty, health, education, land ownership, asset holding etc. The proportion of population under the BPL more in the southern region than northern and coastal and among the social groups scheduled caste and scheduled tribe a huge portion of population comes under the poverty line (Pati and Panda, 2010).

The labour relation in the some of the industrial or mining sector of the Odisha explain that labour fragmentation within the region are handled over by the socially and politically dominant classes. So the political and social power controls the private mining project through exploitation of scheduled caste and scheduled tribes, where the depressed groups like tribal and Dalits have their main occupation in forest land or agriculture land. Their livelihood does not changes over the period with the progress industrialisation of the region. So, due to the labour fragmentation through the privatisation process, large section of workers lived under deprivation (Adduci, 2017)

The discrimination in the rural labour market in the wages in the different section of workers and sub categories of the sector creates the inequality among the society. So, the regional imbalance and disparities of the state also pulls down the progress of the state. Caste is a factor in the rural areas for the employment as well as the wages of the workers where higher caste controls the market structure. The discrimination of labour markets passes through the wages or length of working hours of the workers. The higher caste are comparatively in a better economic condition than the lower caste and by the dominance in the society lower caste comes under the order. Wage discrimination in the casual labour markets in rural areas higher than the urban because in the urban labour markets caste does

not impact the wage rate much. Still discrimination exist in urban markets also (Madheswaran and Attwell, 2017, Thorat 2010, Deshpande, 2011). The rural labour market is operated by the some elite people rather than the equal representatives from the all section and all groups. By the dominance of one section over the other section, one caste or groups is deprived and lags behind in the society when compared to the progress of the other. The inequality of the distribution of wealth, land, assets, income etc. emerge in two angels by the intrinsic and functional form. Due to in the rural society's lack of immobility of labour from one place to another wage difference arises. Because people in rural do not prefer to go outside the village for work rather they work in village despite getting less wages than the market wage rate. On the other hand in the functional distribution leans on the progress of the individual workers by earning income (Ray, 2012:192).

In this chapter we will discuss about the discrimination in rural labour markets based on the field survey information from rural Odisha. It focuses on the wage rate, length of working hours, either the casual labour take advance for the given work or not, whether the wage of casual labour has increased in the current date when compared to last year etc. The descriptive statistic of each of the indicator in the labour markets would be describe in this chapter. The chapter covers more about the social groups in two labour markets, wage discrimination and its relative contribution to the discrimination components of the wage rate. This has been measured through the Blinder and Oaxaca decomposition methods. It is also describes how to reduce the discrimination against the social group's dogma or evil in rural areas. In the next section it describes the determinant of wage rate of casual labour through the measure of ordinary linear regression model by the explanatory variables like age, sex, education, assets, land etc.

6.1.1 Distribution of workers: It is describes the composition of total workers as per their number of days working in the different activities in the last six months. So the village wise and social groups wise sample of total workers out of 2128 total population of the four villages. It is indicates the relative composition of workers from the different social groups, by which it can observe the proportion of composition of casual labour or workers among the lower caste and higher caste. The **Table 6.1** explain the distribution of total 669 individual workers who are actively attached to the economic activities. The majority of workers engaged with the casual labour are non agricultural rather than being agricultural. The distribution of workers across the social groups indicate that around 36 per cent of workers belong to scheduled caste, 14 per cent scheduled tribe, 37 per cent are other backward castes

and less than 14 per cent are other castes. As per as their information major days of attached with different occupation put in **Table 6.1**.

Tab 6.1 Distribution of total workers across the villages and social groups in study areas.

	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
SCs	56 (23.2) [33.7]	50 (20.7) [27.0]	72 (29.9) [45.3]	63 (26.1) [39.6]	241 (100.0) [36.0]
STs	42 (45.7) [25.3]	34 (37.0) [18.4]	16 (17.4) [10.1]	NA	92 (100.0) [13.8]
OBCs	54 (22.0) [32.5]	68 (27.8) [36.8]	52 (21.2) [32.7]	71 (29.0) [44.7]	245 (100.0) [36.6]
OTH	14 (15.4) [8.4]	33 (36.3) [17.8]	19 (20.9) [11.9]	25 (27.5) [15.7]	91 (100.0) [13.6]
ALL	166 (24.8) [100.0]	185 (27.7) [100.0]	159 (23.8) [100.0]	159 (23.8) [100.0]	669 (100.0) [100.0]

Sources: Field Survey, 2016 Note: round bracket indicate row total and square bracket column total.

The distribution is more or less in equal proportion with respect to the higher caste and lower caste i.e., fifty percent of sample from higher caste and rest fifty per cent from the lower caste. The social group's proportion of scheduled tribes and other caste is less as compared to the other two groups. However, in the four villages total casual workers across the village is around 25 percent of casual workers as per the information collected from each of villages. So out of the total 408 sample households 669 workers were actively working in the last season as a workers.

The distribution of workers across different subcategories of work or activities among the social groups as per as the number of days employed describe in **Table 6.2**. The village and social and group-wise main occupation reported by the individual of four villages describe that a large percentage of workers work as casual non-agriculture labour than agriculture. A large number of workers out of 669 workers in the study villages engaged with major days in non-agriculture labour work followed by agriculture labour and seasonal migration labour. After some period spends in the villages work in the villages and nearby villages as non-agriculture work they are migrated to the neighbouring state.

Table 6.2 Distribution of workers across the main occupation (measured by number of days employed or work) within the social groups and villages

Main Occupation	Scheduled Caste	Scheduled Tribes	Other Backward Castes	Others	All Caste
Self Employed in Agri	1.7	NA	3.3	9.9	3.1
Self Employed in Non Agri	2.1	NA	11	7.7	5.8
Casual Agri Labour	25.3	31.5	9.4	11	18.4
Casual Non Agri Labour	37.7	44.6	33.1	27.5	35.6
Migrant labour	27.8	9.7	33.4	34.1	28.2
Business	2.9	7.6	6.1	3.3	4.8
Service or Regular Salaries	2.5	6.5	3.7	6.6	4
Total	100	100	100	100	100
	Kanikapada	Mukundapur	Rahania	Chudamani	ALL
Self Employed in Agri	NA	4.9	3.1	4.4	3.1
Self Employed in Non Agri	15.7	5.4	1.9	NA	5.8
Casual Agri Labour	16.9	16.2	24.5	16.4	18.4
Casual Non Agri Labour	35.5	36.2	28.3	42.1	35.6
Migrant Labour	22.9	28.6	34.6	27	28.2
Business	4.2	6.5	4.4	3.8	4.8
Service or Regular Salaries	4.8	2.2	3.1	6.3	4
Total	100	100	100	100	100

Sources: Field Survey, 2016

Although they reported that their main occupation is in the nine subcategories, as per as a large number of days attached with different activities the present study more focus on the casual labour both agriculture as well as non-agriculture work. So we are taking the number of days working in agriculture labour and non-agriculture over the period of time instead of their main occupation. So that the number of days working in agriculture work in the four villages 382 individual, those is working in the range of days 10 to 50 days in the last agriculture season or in last six months. Like the agriculture labour, worker work as casual non-agriculture is 393 and the number of days works in last six months on the range of 10 to 150 days. The average number of days work in farming or cultivation by agriculture are around 25 days, whereas in agriculture labour work in the non-farming work around 40 days out of last six months. In this descriptive analysis, we can observe that maximum time casual labour are unemployed. The next section describes the operation of casual labour markets descriptive analysis.

6.2 Descriptive analysis of Casual Agriculture Labour market Discrimination (CAL): In this section we are going to analyze the casual agriculture labourer's average number of days work in agriculture in village and outside village, average working hour in village and outside village, average wage rate for the agriculture work in villages and outside villages, do they get meal or not, do they take any kind of advance from the employers, whether the wage rate of the agriculture work was more than last year or less etc. It is based on the last six months activities of casual agriculture labourer. The total number of agriculture labourer as per as the working in agriculture as casual labour in four villages out of total workers is 382 individuals. The details of casual agriculture labour like number of days work in last six months, working hours, wage rate etc describe in the sub section of this part.

6.2.1 Principal number of days work in agriculture: It is based on the 382 individual agriculture labours who were working in different type of agriculture activities like sowing, planting, cutting of crops and harvesting in the last six months. The social group wise analysis includes average number of days they worked in agriculture in each of the village explained in **Appendix 6.1**. Among the social groups in scheduled caste casual agriculture labour work more in agriculture than the other social groups. The average number of days scheduled caste work as casual agriculture labour is 28 days, respectively STs 27 days, OBCs 20 days and OTH 23 days. In the village wise analysis, among the social groups casual agriculture labour at Kanikapada scheduled caste work in 29 days, STs 25 days, OBCs 15 days and OTH 18 days. In the second village of the Jajpur district average number of days work in agriculture by SCs 28 days followed by STs 26 days, OTH 19 days and OBCs 17 days. In the Rahania village, average number of days work in agriculture highest in STs among the social groups. In the fourth village, SCs and STs average wages around 27 days and it is in the higher caste less than 23 days. The inequality among the social groups working in the agriculture or farm work by the casual labour shows that scheduled caste labourer work more in agriculture than the other caste. The average number of days they work outside village work in agriculture (as like as commuting labour) in the agriculture social groups wise explain in the same **appendix 6.1**. In all villages subsumed we find that agriculture labour not go to the outside for agriculture work, it is less than five days for all section of the people.

6.2.2 Average working hours in agriculture: The average working hour of the agriculture labour work in agriculture in the village and outside village explain in appendix 6.2. The average working hour within villages of agricultural labour in Kanikapada and Rahania six

hours, as compared to Mukundapur and Chudamani seven and nine hours respectively. The social group's analysis, in scheduled caste except for Chudamani village in all other three villages average working hours six hours a day. In the scheduled tribe in Mukundapur around seven hours work in a typical day for agriculture work which is more than other villages. In OBCs, except Chudamani where average eight hours spend by them in agriculture work in a day in comparison to other villages where only six hours they work. Like in the OTH, average working hours less in the Rahania villages as compared to other villages in a typical working day. An overall study of the working hours of casual agriculture labour within villages for the farming, in Chudamani village of Bhadrak district, working hour three more for scheduled caste than the other social groups in this village. Due to discrimination the scheduled caste in the villages they have to work more hours for the same wages as per the villager's information. In this village we also find those female agriculture workers get fewer wages than male workers for the same type of work. Among the social groups taking all villages of working hour within the villages average seven hours work in atypical days except scheduled tribe who are work six hours. Among the villages in taking all caste, in Chudamani average working hours nine hours as compared to Mukundapur seven hour and six hours for village Rahania and Chudamani. On the other hand working, hours outside the village of agriculture work explain in the same appendix 6.2. Among the social groups except OBCs casual agriculture labour working in outside village work six hours. The OBCs agriculture workers work seven hours for the farming outside the village. Among the villages, all villages six hours work for the typical days except the village of Chudamani where eight hours have to work for the same wages.

6.2.3 Average wage rate of casual agriculture labour: After discussion of working days, working hour of casual agriculture labour within the village and outside village we find that scheduled caste is more work in labour and their working hours more than other caste working hour for the same wage rate. So now in Table 6.3, the average wage rate for agriculture work within the village and outside the village described. Within village work taking all village together, it is found that for typical days (means working in eight hours in a day) scheduled caste get Rs. 242 wages as compared to scheduled tribe Rs. 225, other backward caste Rs. 270 and other Rs. 268. It is shown that for the same time of work spend by both higher caste and lower caste in farming, scheduled caste or lower caste get fewer wages than higher caste. So the caste-wise discrimination may bear the role for the difference of wages among the social groups. All village average wages taking all social groups found

that average wages more than Rs. 250, except the village of Mukundapur where wages of casual agriculture labour Rs. 191 for days. The analysis of each village of scheduled caste agriculture labour explains that the range of minimum and maximum wages of agriculture labour come under Rs. 171 and Rs. 667. Whereas in the scheduled tribes the range of wages found that Rs. 171 as minimum and Rs. 400. The other backward caste agriculture labour average wage rate Rs. 270 and varies in the range of minimum Rs. 120 and maximum Rs. 400. It is less compare to SCs and STs, for higher caste or OBCs agriculture labour not much work in agriculture and they are attached with more in non-agriculture labour over the period. The minimum wages for OTH caste agriculture labour found Rs. 150 and maximum wages of that caste as Rs. 333 for the work in agriculture or farm.

In outside village the wages rate of casual agriculture labour much higher than the villages for the eight hours work in the agriculture field, In table 6.3, describe the average wages of casual labour in the village around Rs. 249 and outside village it is Rs. 257. Taking all village analysis in outside of the village, average wages of scheduled caste (Rs.256), scheduled tribe (Rs. 253), other backward castes (Rs.289) and other (Rs200) much less than the wages of village among the social groups. Each of the social group's analysis in outside village average wages for the casual agriculture work much more than the villages wages. This describes that although the village level wage gap arises due to caste matter outside village the gap among the social groups it is reduced. It is emerging due to in outside village caste does not much explanation about the wages of a casual labour rather than it is focused on only work. We find that the gap between average wages of agriculture labour income with the village and outside village that, in scheduled caste Rs. 14, scheduled tribe Rs. 28, other backward caste Rs. 19. However, the higher caste (OTH caste) wages in the village more than the outside village i.e., in village Rs. 268 and outside village Rs. 200. The range of wages also higher in outside village than compared to village wages. In scheduled caste, range (minimum and maximum) of wages found that Rs. 171 to Rs. 400 as compared to scheduled tribe Rs. 200 to Rs. 333, other backward caste Rs. 200 to Rs. 343 and for other only Rs. 200 for each. So from the analysis of Table 6.7, we find that the average wage rate of agriculture labour outside the village higher than the village and among the social group's wages compared within village and So outside village higher in STs followed by OBCs and SCs. The wage rate inequality among the casual agriculture labour in the four village describes that scheduled caste are get less wages for the same type work than the higher caste.

Table 6.3 Average wages rate (Rs) of agriculture labour within and outside village

Name of Villages	Average wage rate of CAL within Villages														
	SCs			STs			OBCs			OTH			ALL Caste		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Kanikapada	171	667	272	240	400	279	229	333	298	267	400	333	171	667	284
Mukundapur	171	200	187	171	200	172	149	333	212	150	320	227	149	333	191
Rahania	183	320	247	171	240	199	213	320	270	240	400	293	171	400	250
Chudamani	178	300	261	.	.	.	120	400	277	160	400	262	120	400	269
All Villages	171	667	242	171	400	225	120	400	270	150	400	268	120	667	249
Average wage rate of CAL outside Villages															
Kanikapada	267	300	269	267	333	289	267	333	278
Mukundapur	171	229	210	227	267	253	200	200	200	200	200	200	171	267	221
Rahania	200	400	289	200	240	218	293	293	293	.	.	.	200	400	255
Chudamani	300	300	300	.	.	.	267	343	317	.	.	.	267	343	313
All Villages	171	400	256	200	333	253	200	343	289	200	200	200	171	400	257

Sources: Field Survey, 2016 Note: Wage Rate calculate by Average wages/Average working hours*8 hours

6.2.4 Employer's facilities to agriculture labour in workplace: It describes about the how the labour get meal, interval of wages etc. The agriculture labour who work in the other farm or agriculture work, 382 labour responded about the work side treatment by the employers. This is described in the **appendix 6.3**. This the distribution of labour about the meal in the working period in villages and outside villages for agriculture work. Among the villages within village, more than 73 per cent of labour said they get some food like biscuit or cake as breakfast in between their work. Only 2.1 per cent of labour said they are get both breakfast as well as lunch for agriculture work in villages and rest 24.2 percent say the employer not provide any thing in the working period. The village wise study, in Kanikapada around 99 per cent labour says they are get breakfast as compared to Chudamani 96.5 per cent and Rahania 72.9 per cent. But in Mukundapur only 24 per cent agriculture labour said they are get meal like breakfast in the working period and rest 71.9 per cent said not find any type of meal for agriculture. In outside village agriculture labour of four villages, majority of labour were get meal like Tiffin and both lunch & breakfast respectively 79.3 percent and 8.6 per cent respectively. In village of Chudamani half of the casual labour said get only breakfast and half said get both lunch meal and breakfast.

Among the social groups within village large percentage of agriculture, labour belongs to OBCs, OTH and SCs receive a breakfast type meal in the middle of the working period. Among the scheduled tribes 52 per cent of agriculture labour only get breakfast and 46.7 per cent said not getting any type of meal in the working period. On the other hand, outside village among the social group's a large percentage of OBCs and OTHs caste does not take

any type of meal from the agriculture type work. They are also said that due to in outside village employers caste not known so that not want to take any type of meal from the employers in the middle of the working period. Whereas among the scheduled caste and scheduled tribe around 82.8 and 87 per cent are getting a breakfast type meal from the employers for the agriculture work.

6.2.5 Trend of wage rate in agriculture work: It is a response by the agriculture labour about the wages of different type of agriculture work trends in comparison to the last agriculture season in the villages as well as outside of villages. First of all analysis in all village of two districts found that within the village 76.6 per cent of agriculture labour said the wage rate of agriculture in the village currently same as last year wage rate. Around 19.2 per cent of agriculture, labour says wage rate increase and 4.2 per cent say the same as compared to last year. The proportion of labour respondent for the same wages in outside village around 55.2 per cent as compared to 76.6 per cent in the village. Around 31 per cent of agriculture say outside village agriculture labour wages more than the village and it is rise as compared to last year. However, around 13.8 per cent of agriculture labour said outside wage rate decrease as compared to a previous year for the agriculture work and it is for the village Chudamani 50 per cent of labour given the same opinion for same wages as compared to last year. The details of the analysis see **appendix 6.4.**

Among the social group's analysis of response about the wage rate increase or decrease, more than 75 per cent labour from each of every caste groups said their wage rate same current period as compared to last years and it is not rising at all in the village. However, 20 per cent of STs, 19.9 per cent of SCs, 18.9 per cent of OTH and 17.8 per cent of OBCs labour said in village wage rate increase slowly for the agriculture work and it is increasing as compared to last year also. In outside village average wage rate same as compared to last year, all agriculture labour of OTH caste group agriculture labour responses as compared 69 per cent for SCs and around 40 per cent by STs and OBCs. Around 43 per cent of the scheduled tribe, casual agriculture labour said outside village agriculture labour wages increases as compared to last year (describe in the same appendix).

Among the social groups within village large percentage of agriculture, labour belongs to OBCs, OTH and SCs receive a breakfast type meal in the middle of the working period. Among the scheduled tribes 52 per cent of agriculture labour only get breakfast and 46.7 per cent said not getting any type of meal in the working period. On the other hand, outside

village among the social group's a large percentage of OBCs and OTHs caste does not take any type of meal from the agriculture type work. They are also said that due to in outside village employers caste not known so that not want to take any type of meal from the employers in the middle of the working period. Whereas among the scheduled caste and scheduled tribe around 82.8 and 87 per cent are getting a breakfast type meal from the employers for the agriculture work.

6.2.6 Credit Labour Interlinked in agriculture: It is describes the percentage of agriculture labour taking advance for the agriculture work within villages. This helps the landlords or large farmers for binding the labour to their work. So that the higher caste can get easily labour in the cultivation period and not face the problem like price hike in the lean period. The majority of agriculture labour respond that they are not taking advance wages for the agriculture work in village. But does not happened in all the agriculture labourer's cases. The analysis of outside village advances about the commitment for the work in agriculture in four village is not so much, therefore, I skipped the analysis of outside village advance description. The present **Table 6.4**, describes the caste wise distribution in each of the village's agriculture labour taking advances from their employer for the work of agriculture or farming activities. Taking village and social groups in the agriculture labour 16.84 per cent labourers said that they were taking advance for the agriculture work in the village from landlords or rich farmers. As compare the village analysis, in Mukundapur 19.15 per cent, in Kanikapada 18.58 per cent, Chudamani 14.94 per cent and Rahania 13.95 per cent casual agriculture labour taking advance for the agriculture work from the rich farmer.

Table 6.4 Percentage of agriculture labour taking advance for doing agriculture work in upcoming season

Name of Villages	Scheduled Castes	Scheduled Tribes	Other Backward Castes	Others	All Social Groups
Kanikapada	39.13	8.82	0.00	0.00	18.58
Mukundapur	42.11	3.57	0.00	10.00	19.15
Rahania	13.95	16.67	12.50	14.29	13.95
Chudamani	15.15	-	15.38	13.33	14.94
All Villages	28.13	8.11	8.26	10.81	16.84

Sources: Field Survey, 2016.

Among the social groups, more than 28 per cent receives advance for the agriculture work from the rich farmer to support their family expenditure as compared to OTH caste 10.81 percent, OBCs 8.26 per cent and 8.11 percent of STs. SO we conclude that scheduled caste agriculture labour in the rural areas are taking advance for the agriculture work before the

agriculture season. They also said that due to them taking advance, the wages of agriculture labour was less than the current wage rate for the agriculture work. Half of the agriculture labour said the gap of wages agriculture labour among the advance wages and current wages ranges from Rs. to Rs. 50.

6.3 Descriptive analysis of Non Agriculture Labour market Discrimination (CNAL):

The casual non agriculture work or nonfarm employment in rural labour market plays a major role in the employment. However, major section of workers depend on agriculture as their main sources of income is generate through the cultivation of crops but after that they work in different nonfarm works like construction work, driving, cooking, house making, carpenter, wood cutting etc. So, the details of four villages casual non agriculture labour activities in rural areas description explain in some section of this part. The main point of the casual non agriculture labour over the last six months activities is described in this section. It is a part of the worker's working condition and how they are discrimination on the basis of caste in rural areas. The caste is a factor in the market discrimination in all aspects of labour activities from workings days to working hours and wages.

6.3.1 Average number of days work in non-agriculture: It is based on the 393 casual non agriculture labourers who were engaged in nonfarm work more in the last six months. In **table 6.5**, the average number of days they work in the nonfarm sector is basically more than the agriculture work. However, the study focuses more on casual labour in both agriculture as well as non agriculture labour but on the ground or the study captures more about non agriculture labour than agriculture labour. The average number of days they work in nonfarm activities of non agriculture labours is 41 days out of the 180 days. In the village wise study of average number of days they work in the non farm sector in Chudamani is 47 days which is higher than the other three villages. It is located near the Bay of Bengal and maximum people are work in catching fish or work in the loading and unloading the fish. They also work in the prawn factories daily wage labour (the place called as Jetty or Falcon Marine Export Private Limited).

Table 6.5 Descriptive statistics of non agriculture labour number of days working in nonfarm in villages (in last six months)

Name of Villages	SCs			STs			OBCs			OTH			All Caste		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Kanikapada	10	80	35	10	70	42	10	120	51	20	100	50	10	120	42
Mukundapur	15	60	34	15	60	31	20	80	37	10	60	38	10	80	34
Rahania	10	100	39	10	60	36	15	100	39	20	60	40	10	100	38
Chudamani	10	150	54	.	.	.	15	90	41	30	70	44	10	150	47
All Villages	10	150	41	10	70	36	10	120	43	10	100	42	10	150	41

Sources: Field Survey, 2016 Note: Mean indicate average number of days work in nonfarm or as non-agriculture labour, Min and Max indicate minimum and maximum number of days work in non-agriculture.

The village wise among the social groups, working in nonfarm sector by the non agriculture labour in Kanikapada village is 35 days work by SCs, 42 days by STs, 51 days by OBCs and 50 days by OTH. Due to this pattern in the village most of the scheduled worker migrate to Hyderabad and Chennai for the ply board work, so average number of days of work in the non agricultural work is less in comparison to other castes. In the second village also OBCs and OTH caste labourers work more in non agriculture work than the scheduled caste and scheduled tribes. In the third village Rahania, an average of 40 days work is in non agriculture work by the casual non agriculture labour by all caste except scheduled tribes i.e., 36 days work in non agriculture. In Chudamani village large number of scheduled caste are daily wages labourers working in the fishing factories for the daily basis wages.

6.3.2 Working hours in non agriculture: The average working hour of casual non agriculture labour in the rural areas is explained in **Table 6.6**. It is observed that the casual non agriculture labour works more in terms of time than the agriculture work. So, the wage of non agriculture labour more than the agriculture labour. It describes the amount of time spent for the respective wages of the given work by scheduled caste, scheduled tribes, other backward caste and others described in below. The average working hours is around seven hours for non farm work on taking all villages and social groups into consideration. The village wise comparison, in Chudamani, the nonfarm length of working period is more than the other villages. Where as in Kanikapada and Mukundapur same working hours as seven hours have to be spend for the wages of Rs. 286 and Rs. 253 respectively. Although the time period is same but wage rates are different in the two villages. Among the social groups taking all villages into consideration the length of working hours is around seven.

Tab 6.6 Descriptive statistics of non agriculture labour average working hours in non agriculture

Name of Villages	SCs			STs			OBCs			OTH			ALL Caste		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Kanikapada	4	8	6	5	8	7	6	9	7	6	8	6	4	9	7
Mukundapur	6	9	7	6	8	7	5	8	7	5	8	7	5	9	7
Rahania	4	10	6	5	6	6	3	10	6	4	9	6	3	10	6
Chudamani	6	10	8	.	.	.	6	11	8	8	10	9	6	11	8
All Villages	4	10	7	5	8	7	3	11	7	4	10	7	3	11	7

Sources: Field Survey, 2016

In Kanikapada, average working hours for scheduled caste and others are seven for a fully days work, whereas, among the scheduled tribe and other backward caste seven hours have to be spend. In the village Mukundapur and Rahania, all the social group's length of working hours is the same. In village Chudamani, other caste work more hours in non-farm works than the scheduled caste and other backward caste of the villages.

6.3.3 Average wage rate of non agriculture work: The average wage rate of casual non agriculture labours among the social groups as per the village wise sample has been described **Table 6.7**. As compared to the wage rate of agriculture, non agriculture labourer's wages are higher for the given time of work. The wage rate of the both agriculture and non agriculture labour markets calculate for the eight hours working period in a typical days. The range of wage rate, taking all social groups and all villages is Rs. 114 to Rs. 800 per days. Whereas the average wage rates are Rs. 280 which is less than the agriculture wage rate which is Rs. 249 in villages and Rs. 257 in outside village. Among the social groups average wage rate is Rs. 257 for scheduled caste, Rs. 255 for scheduled tribes, Rs. 327 for other backward caste and Rs. 273 for others. The minimum wage rate of scheduled caste Rs. 114 as compared to STs and OBCs which is Rs. 150 respectively. The maximum wage rate of scheduled caste is Rs. 480 per days as compared to Rs 457 for ST, Rs. 800 for OBCs and Rs 467 for others. The other backward caste's wage rate is more as they work in wooden work or as carpenters.. It is observed that in the village like Kanikapada and Mukundapur some OBCs caste with the titles of *Ojha* and *Sutar* work on their own hereditary occupation.

In the above **Table 6.7**, describe that in village Kanikapada, average wage rate of scheduled caste and scheduled tribes around Rs. 261, where as the higher caste like other backward caste and others respectively Rs. 332 and Rs. 353. In this village higher caste engaged with the occupation like skilled work rather than the manual work. The lower caste

like sub caste of Pano, Domo and Majhi are worked in off season of agriculture as making the bamboo Jhudi (villagers called *Sira*) for the payment of daily basis wages by number of Jhudi making. If they are taking the material to home it is slightly more wages than the other place, due to their family labour like the female and children help to making the Jhudi.

Table 6.7 Average wages rate (Rs) of non agriculture labour within village

Name of Villages	Average wage rate of CNAL within Villages														
	SCs			STs			OBCs			OTH			ALL Caste		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Kanikapada	200	320	261	154	400	262	150	467	332	280	467	353	150	467	286
Mukundapur	150	286	218	150	457	257	160	667	311	183	400	246	150	667	253
Rahania	114	480	261	200	275	233	200	800	367	200	433	279	114	800	291
Chudamani	150	467	285	.	.	.	218	400	306	160	317	260	150	467	290
All Villages	114	480	257	150	457	255	150	800	327	160	467	273	114	800	280

Sources: Field Survey, 2016. It is calculate on eight hour work in days.

The second village where large section of scheduled caste and scheduled tribes goes to per days work to the construction sector in the village or some time goes to neighbour districts Keonjhor after cross the Baitarani rivers. The average wages of scheduled caste much lower than the other social groups. The average wage rate of scheduled tribes is Rs. 257, other caste Rs. 246 and other backward caste Rs. 311, where as for scheduled caste it is only Rs. 218. In the third village Rahania, average wages of casual non agriculture labour among the social groups respective for SCs 261, STs Rs. 233, OBCs Rs. 367 and OTH Rs. 279. In this village scheduled tribe wage rate lowest as compared to other three caste in the village. In the last village Chudamani, where scheduled tribe population not exist rather than in this village proportion of scheduled caste population more than the other caste. The average wage rate for the higher caste called OTH, are less than the other backward caste and it is even less than the scheduled caste labour. The average wage rate of others Rs. 260, as compared to scheduled caste Rs. 285 and OBC Rs. 306.

6.3.4 Employers facilities to non agriculture labour in work place: It is describe about the meal or breakfast facilities provided by the employers to their labour in the non agriculture work. This is support to work more hours for the given wage rate. This is describe the information provided by the 393 casual non agriculture labour work in the non farm sector in the village. Around 63.9 per cent of labour response that they are only getting breakfast type meal in the working period by the employer in the work place and taking less than half an hour for this as treated as rest. On the other hand 21.5 per cent response they are not get

anything in the work place, although work continuously more than seven hours. So they are taking the meal from the home for casual non agriculture labour work. Among the social groups, large proportion of scheduled caste and other back ward caste response that they are get breakfast like meal in the work place but for the meal like breakfast with lunch together OBCs caste response 21.6 per cent are find in compared to scheduled caste only 13.8 per cent.

Among the village in Kanikapada, all the workers response that they are getting either Tiffin or both at a time for the non farm work, rather than in the village of Mukundapur around 60 per cent said they are not find even Tiffin also. In this village caste based discrimination more than the other village. The lower caste also response that higher caste provide the meal for like to other backward caste or other backward caste gives to others but there are no chance to provide any type of meal to scheduled caste and scheduled tribe. Those are response that given breakfast they are work as whole years for the specific higher caste. In the village of Rahania, more than 84 per cent response that they are find meal type breakfast in the work place by the employers if the employers belong to own sub caste, other than they are provide some money to take from the nearby shop for the breakfast or biscuit.

Table 6.8 Percentage of casual non agriculture labour getting MEAL from nonfarm work

Caste	Type of Meal	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
SC	Breakfast	91.3	26.3	76.9	65.9	66.5
	Breakfast & Lunch	8.7	34.2	2.6	11.4	13.8
	Nothing else	0	39.5	20.5	22.7	19.8
ST	Breakfast	85.7	17.9	91.7	-	58.8
	Breakfast & Lunch	14.3	3.6	0	-	7.4
	Nothing else	0	78.6	8.3	-	33.8
OBC	Breakfast	44	40.9	92	79.5	66.7
	Breakfast & Lunch	56	4.5	8	17.9	21.6
	Nothing else	0	54.5	0	2.6	11.7
OTH	Breakfast	80	10	85.7	57.1	52.8
	Breakfast & Lunch	20	0	14.3	14.3	11.1
	Nothing else	0	90	0	28.6	36.1
ALL	Breakfast	77.9	25.5	84.3	70.1	63.9
	Breakfast & Lunch	22.1	15.3	4.8	14.4	14.7
	Nothing else	0	59.2	10.8	15.5	21.5

Sources: Primary Survey, 2016 Note: The percentage CAL getting meal like Breakfast or Tiffin (i.e., biscuit or cake), Breakfast & lunch and nothing is hundred percentage.

The caste is more important in the providing of meal in the work place due to social bondage of lower caste and higher caste. Those higher caste response that they are find breakfast or

both breakfast and meal in the work place, the employer must be own caste or higher than their caste otherwise no chance to take even breakfast or any type of food from the scheduled caste or scheduled tribe. The caste based discrimination in the providing meal in work place much important to the employers and employees belong to which caste or sub caste. Even among the caste if sub caste are differ some place like in Mukundapur the employer not providing any meal to employees.

6.3.5 Changes in wages rate of non agriculture work: As compared to the last year the wage rate in increase or decrease for the same type work asked by the 393 individual. This is asked to the casual labour because to know whether the wage rate in the village for the given work as increase or decrease or constant over the period. This is explain that the percentage of individual response about the change in wage rate of the casual nonfarm work like construction work, cooking in festival, work as driver on daily payment basis, carpenter work etc.

Table 6.9 Village and Social Groups wise percentage of non agriculture labour respondent about the query of wage rate increase or decrease for non agriculture work since last year

Caste	Wages change	Kanikapada	Mukundapur	Rahania	Chudamani	All Village
SCs	Same wages	41.30	97.37	60.00	42.86	59.04
	Less wages	4.35	0.00	30.00	4.76	9.64
	More than last year	54.35	2.63	10.00	52.38	31.33
STs	Same wages	53.85	100	91.67	-	80.30
	Less wages	0.00	0.00	8.33	-	1.52
	More than last year	46.15	0.00	0.00	-	18.18
OBCs	Same wages	45.45	90.91	65.38	82.05	70.00
	Less wages	12.12	0.00	7.69	0.00	5.00
	More than last year	42.42	9.09	26.92	17.95	25.00
OTH	Same wages	80.00	100	50.00	85.71	81.08
	Less wages	20.00	0.00	0.00	0.00	2.70
	More than last year	0.00	0.00	50.00	14.29	16.22
ALL	Same wages	47.27	96.94	65.12	65.26	68.12
	Less wages	6.36	0.00	17.44	2.11	6.17
	More than last year	46.36	3.06	17.44	32.63	25.71

Sources: Field Survey, 2016: Note: It is asked to those are work and it is compared the wages of last year.

It is compared with the wage rate of last year as in existing wage rate of the village. More than 68 per cent of non agriculture labour said the wage rate same as last year and 25.71 per cent says yes the wages rate some extent increases as compare to previous year. Among the village in Kanikapada, 47.27 per cent labour says wages are same and 46.36 per cent say yes

wage rate increases. In Mukundapur around 97 per cent says same wage in the villages as last year comparison. In Rahania, around 65 per cent of casual labour says wage rate same and 17.44 per cent labour says current wage rate decrease as compared to last year. This is due to the demand of labour less than the supply of labour in the village. In Chudamani 65.26 per cent of labour response that wage rate for nonfarm work same as compared to last years and rest 32.63 per cent says wage rate increases over the period time.

The social groups wise explanation from the given **Table 6.9**, describe that around 60 per cent of scheduled caste nonfarm labour response that wage rate same as compared to last year and 31.33 per cent say it is more than the last year, whereas only 9.64 per cent say the current wage rate less than the last year wage rate. In the scheduled tribes cases, more than 80 per cent says same wages we are receives as compared to last year, and 18.18 per cent say the wage rate rises over the period. In other backward caste 70 per cent say same wages and 25 per cent rises the wages or more wages for the non farm work. In the other caste 81.08 per cent response that the wage rate in village same as the last year and only 16.22 per cent say the wage rate increase. In the concluding remarks we can say the among the social groups scheduled caste daily wage labour average number of days much higher than the other caste and they are more work in the manual labour like wood cutting, home based work, work in brick industry etc. means any type work rather than the higher caste only work in the skilled or trend work like carpenter, home making, machinery work, cooking, driving etc.

6.3.6 Credit Labour Interlinked in Non Farm Work: The percentage of casual non agriculture labour taking advance for nonfarm work from villages has been describe in **Table 6.10**. In the rural areas most of the lower caste poor labour are taking the wages from the higher caste or employers or from the land lord on committing to work in the non farm sector. Some place of the study village we find that the non agriculture labour can easily get the advance wages for the given work due to the employers fixed the wage rate for this work. Because some time wage rate increase for some specific time period due to shortage of labour in the village. So the higher caste (taking OBCs also) provide the wage advance to the scheduled caste due to for the same work they are taking less wages than the current wage rate. In the village like Kanikapada and Chudamani, scheduled caste labour are taking loan for the sake of work over the whole period of time instead of sitting in home. So they are prefer to take advance wages from the employers. In the given **Table 6.10**, around 16.37 per cent of non agriculture labour say they are taking advance wages for upcoming work. Among the village in Chudamani large per cent of labour taking advance wages followed by the

village of Kanikapada, Rahania and Mukundapur i.e., 25.26 per cent in Chudamani, 16.07 per cent by Kanikapada, 15.12 per cent Rahania, 9.18 per cent Mukundapur.

Table 6.10 Percentage of casual non agricultural labour taking advance for non farm work in upcoming season

Name of Villages	Scheduled Castes	Scheduled Tribes	Other Backward Castes	Others	All Social Groups
Kanikapada	30.43	3.57	9.09	0.00	16.07
Mukundapur	23.68	0.00	0.00	0.00	9.18
Rahania	12.50	0.00	23.08	25.00	15.12
Chudamani	28.57	-	25.64	14.29	25.26
All Villages	24.10	1.47	15.83	10.81	16.37

Sources: Field Survey, 2016. Note: It is the respondent who say we are taking advance over the period of time

Among the social groups 24.10 per cent response that they are taking advance wages from the employers for non farm work as compared to 1.47 per cent says by scheduled tribes, 15.83 per cent other backward caste and 10.81 per cents others. From this analysis found that scheduled caste are poor as compared to higher caste even poor than scheduled tribes in the respective village, so they are bound to take advanced for non farm work. On the other hand we can say due to they are poor and they have to work for support to their family they are advance taking for continuously work or regular work in the village. So the poor scheduled caste worker take advanced. Although the wage rate varies as per as the supply and demand of labour in the given time but the advanced wage labour not find the rising wage rate on that period. Above all caste based discrimination play important role in rural labour wages as well as advance. If the lower caste want to take wage advance from the higher caste it is must less than the higher caste advance wage rate. In the village of Mukundapur, some workers response that the gap among the higher caste and lower caste wage must more than on the range of Rs. 50 to Rs. 100. Higher caste refused to giving the wages to all workers instead of some low caste labour who are work whole year of the home of employees.

6.4 Caste discrimination in villages of Odisha: This section of the study capture from the primary survey of the four villages of two coastal districts in rural Odisha. It is measure the discrimination against caste about the labour markets wages. The fundamental characteristics of caste system categories the society in sum section where the occupation of each sub section are fixed and it is transferred from one generation to other. This is called the social exclusion or forced exclusion to lower caste from the choice based occupation. SO the market based economic activity like labour market, other markets also scrutinize or restricted to

certain groups for open access (Thorat, Mahamallick and Sadana, 2010). In the rural labour markets such type of exclusion much more than the urban markets. First of all the labour market discrimination measured in employment and then secondly see the discrimination among the social groups. The lower caste wage difference attributes by the employment due to low caste people basically engaged with the manual type work rather than enter to the skilled work. Although in the recent period low caste people some place enter to the skilled work or change the occupation from the traditional or hereditary occupation but it is insignificant as compared to the higher caste. In rural Odisha some part of the study village we found people are still express like untouchables to lower caste rather than they are highly educated. So the caste is matter on the wage of labour determination in villages as well in rural part of Odisha.

Box 6.1 Description of variables for Decomposition Methods:

Variables	Description
Dependent variables: log wage rate (logwitVcal_WR)	This is the wage rate for the working of eight hours in days for an individual work in agriculture or non agriculture labour within villages. I convert wage rate to log wages for reduce variation. So take log wages of workers instead of per days wages
Independent variables: Age (age)	Age is taking on the range of 18 to 72 years. In rural areas they are work as labour instead rest in old ages. (years)
Age square (age2)	It is the square of current age of individual or labour (in years)
Sex (sexdmy1)	If the casual labour belong to Male 1 other wise 0 (<i>Female</i> Reference category)
Household size (hh_size)	Household size or member of family of casual agriculture labour. It is the total family member of casual labour.
General education (edu_attan)	It is taking dummy each of the education status. It is categories seven types like Illiteracy (1), Up to primary (2+3+4), Middle (5), Matriculation (6), <i>More than Matriculation</i> (7+8).
Illiteracy (edu_attadmy1)	If the individual or casual labour illiterate then = 1 other wise 0
Up to primary (edu_attadmy2)	If the individual or casual labour literate or study up to primary 1 other wise 0
Middle (edu_attadmy3)	If the individual or casual labour study M.E school (6 to 8 class) then = 1 other wise 0
Metric (edu_attadmy4)	If the individual or casual labour literate in high schooling (9 to10 class) then = 1 other wise 0
Agri. Land owned (agriland_owned)	Casual labour agriculture land owned in acre is a continuous variable.

Note: Italic categories are used as reference category in the regression models.

In the **Box 6.1**, describe about the indicator for measure the explained component and caste as itself as unexplained indicator. So the above following characteristics of workers or labour has been used to see the how wages of labour influences and its relative share to contribute the wage determination in rural areas. The discrimination measured through two or pairs of social groups in each of the labour markers in rural areas. First analysis the casual labour

markers, then casual non agriculture labour market and finally in taking all casual labour for the measure of discrimination. The discrimination measure by the Blinder and Oaxaca decomposition technique on the endowment (or explained effect) and treatment difference (or unexplained factor).

6.4.1 Decomposition result of Casual agriculture labour (CAL): The result of decomposition put in the **Table 6.11**. It is describe that for the casual agriculture labour discrimination against the wages of agriculture work in the village of Kharif season. It is divide on the four sub categories of social groups by which the discrimination measure in each of the pairs of groups. The average wages of casual agriculture labour in rural areas in the village describe in previous section of this chapter like for the scheduled caste average wages Rs. 240.83, other backward caste Rs. 271.02, others Rs. 268.25 for a typical days of work (working eight hours in a days). In the subsumed of SCs and STs as lower caste and OBC and OTH as higher caste also describe in the same table. The average wage rate of agriculture labour work in agriculture of lower caste Rs. 235.58 and higher caste Rs. 270.31. Among the pair of two social groups discrimination measured by proportion of coefficient and interaction jointly to total difference.

Table 6.11 Blinder Oaxaca Decomposition Result of Casual agriculture labour (CAL) from field survey in 2016-17

Components of Decomposition	SC-OBC	SC-OTH	SC-HC	LC-HC
Total Difference (TD)	0.120	0.102	0.116	0.141
Endowments (E)	0.003	-0.004	0.001	0.009
Coefficient (C)	0.112	0.059	0.104	0.128
Interaction (U)	0.006	0.047	0.011	0.004
Raw Differential (R=E+C+U)	0.120	0.102	0.116	0.141
Adjust Differential (D=C+U)	0.118	0.106	0.115	0.132
Endowment as % (E/R)	2.280	-4.400	0.782	6.154
Discrimination as % (D/R)	97.720	104.400	99.218	93.846

Sources: Field Survey, 2016. Note: SC-scheduled caste, OBC-other backward caste, OTH- others, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number in endowment (E/R) indicate advantage to forward caste and a negative number indicate advantage to lower caste.

In the first pairs of among scheduled caste and other backward caste (SC-OBC) decomposition result represent that due 97.72 per cent causes or explained to total wage difference arises due to caste. The scheduled caste get less wage than other backward caste due to caste matters explained by 97.72 per cent and rest due to endowment factor. More precisely says that among the SC-OBC pair wage differ due to caste matter more and only

little more than two per cent different explained by endowment factor like education, age, gender, land owned etc. So the discrimination component explains more than endowment component. In the second pair scheduled caste and other (SC-OTH), the sign negative come due to endowment factor reduce the wage of labour and it is less explained to the total difference. In the third pairs scheduled caste and higher caste (SC-HC) more than 99 per cent caste factor for the mean wage gap among the pairs. In the last pairs although the 93.84 per cents explained due to caste and 6.15 per cent describe by endowment factor for the wage gap among the higher caste and lower caste, but it is less than the earlier pairs of discrimination share. It is emerge due to in the village rural labour market caste as an important indicator for your wages or remuneration. The relative contribution share of endowment factor describe about to the wage of casual labour among the pairs, which is help to know the each of the indicator how much effect to endowments components.

Relative contribution of variables to CAL wage rate: It is describe (see in table 6.12) about the different variables how much contribution to the explained and unexplained factor on the wages of casual agriculture labour work farm or cultivation. The evidence provided by these explanatory variables to explanation for the relative share of total difference in the agriculture labour market discrimination. In the first pair SC-OBC, in explained (E) proxy of age square negative come means it is decrease instead of raise the wages, like household size, if the individual study high, land ownership of the individual households are negatively contribute to total difference. In the unexplained cases age and if the individual belong to male are negatively related.

In the total difference age negative come, that means in age scheduled caste are advantage than the other backward caste on the mean wage determination of casual agriculture labour market. Like in the sex male cases same scheduled caste benefit than the OBCs. In the second pairs in total (E+C+U) maximum component indicate negative figure, which indicate scheduled caste are advantage than OTH on the mean wage difference. That means in the explanation of wage difference (i.e., mean wage) caste does not more important rather the endowment factor more influence to wages. This is good for the society where endowment factor determine the causes of wage difference among the SC and OTH instead of caste. In the third pair SC-HC, more than 99 per cent arises due to caste and less than per cent due to endowment factor and the relative composition to mean wages. In the total difference, age, sex male and if individual study up to seven to eight class negative come, that is indicate it is advantage to scheduled caste than higher caste. In the fourth pairs of LC-HC,

age, sex male and education middle negative value come, that means it is benefit to the lower caste than higher caste on the difference of mean wage gap of casual agriculture labour in rural Odisha. It is describe that among the four pairs LC-HC, mean wage difference arises due to caste matter less than the other pairs.

Table 6.12 Relative contribution to Specific variables to the Decomposition of CAL

Variables Name	SC-OBC			SC-OTH		
	Explained (E)	Unexplained (C+U)	Total (E+C+U)	Explained (E)	Unexplained (C+U)	Total (E+C+U)
Age	0.011	-0.444	-0.434	0.010	-0.345	-0.336
Age square	-0.014	0.249	0.236	-0.011	0.479	0.468
Male	0.003	-0.020	-0.017	0.003	-0.428	-0.425
Household Size	-0.001	0.115	0.113	0.001	-0.054	-0.053
Illiterates	0.004	0.015	0.020	0.004	-0.006	-0.002
Literate up to Primary	0.009	0.025	0.034	0.009	-0.003	0.006
Middle	0.000	0.008	0.008	0.000	-0.039	-0.039
High School	-0.003	0.023	0.020	-0.002	-0.009	-0.010
Agriculture land owned	-0.006	0.034	0.028	-0.019	0.069	0.050
Constant	-	0.111	0.111	-	0.443	0.443
Sub Total	0.003	0.118	0.120	-0.004	0.106	0.102
Percentage of Sub Total	2.28	97.72	100.00	-4.40	104.40	100.00
	SC-HC			LC-HC		
Age	0.010	-0.567	-0.556	0.031	-0.750	-0.719
Age square	-0.013	0.369	0.356	-0.030	0.457	0.427
Male	0.003	-0.117	-0.114	-0.002	-0.012	-0.014
Household Size	-0.001	0.095	0.094	0.000	0.066	0.066
Illiterates	0.004	0.007	0.011	0.019	0.022	0.041
Literate up to Primary	0.009	0.020	0.029	0.012	0.033	0.045
Middle	0.000	-0.004	-0.004	-0.002	-0.001	-0.002
High School	-0.003	0.010	0.007	-0.001	0.003	0.002
Agriculture land owned	-0.009	0.042	0.033	-0.019	0.055	0.036
Constant	-	0.259	0.259	-	0.258	0.258
Sub Total	0.001	0.115	0.116	0.009	0.132	0.141
Percentage of Sub Total	0.78	99.22	100.00	6.15	93.85	100.00

Sources: Field Survey, 2016. Note: A positive number indicate advantage to higher caste and negative number indicate advantage to lower caste.

6.4.2 Decomposition result of Casual Non agriculture labour (CNAL): In the casual non agriculture labour market wage discrimination measured in the three pairs of social groups instead of four due to in pairs of SC-OTH, not individual work as non agriculture labour along with the other descriptive component in the model. So in the three pairs casual non agriculture labour market discrimination measure i.e., SC-OBC, SC-HC and LC-HC. In the first pairs SC-OBC, caste as important factor on the mean wage difference among the

scheduled caste and other backward caste. The mean wage of casual non agriculture labour in rural areas among the social groups or pairs describe that in atypical days scheduled caste get Rs. 256.03 as compared to other backward caste Rs. 327.25. The average wages of lower caste for non farm work Rs. 255.68 and higher caste it is Rs. 314.45. So observing the average wage difference among the pairs of social groups describe that caste or groups based wage gap much more among the lower caste and higher caste.

Due to caste matter, 93.20 per cent causes explained to total wage difference of scheduled caste getting low wages for the same type of work although the other indicator are same among them. Decomposition result shows that due to only 6.79 per cent causes of wage difference arises for endowment like education, age, sex, land ownership etc. In the second phase the result describe in the **Table 6.13**, among the SC-HC, although wage difference arises around 90 per cent due to caste matter but in this case endowment factor share more than the previous pairs of wage discrimination. It is indicate that among the scheduled caste and higher caste wage difference arises comparatively more by endowment than discrimination as compared to other two pairs.

Table 6.13 Blinder Oaxaca Decomposition Result of Casual non agriculture labour (CNAL) in 2016

Components of Decomposition	SC-OBC	SC-HC	LC-HC
Total Difference (TD)	0.227	0.188	0.192
Endowments (E)	0.015	0.019	0.013
Coefficient (C)	0.218	0.180	0.181
Interaction (U)	-0.006	-0.012	-0.002
Raw Differential (R=E+C+U)	0.227	0.188	0.192
Adjust Differential (D=C+U)	0.212	0.168	0.179
Endowment as % (E/R)	6.799	10.291	6.763
Discrimination as % (D/R)	93.201	89.709	93.237

Sources: Field Survey, 2016. Note: SC-scheduled caste, OBC-other backward caste, OTH- others, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number in endowment (E/R) indicate advantage to forward caste and a negative number indicate advantage to lower caste.

So in the rural Odisha casual non agriculture labour market wage among lower caste and higher caste or each of the sub categories of social group arises more due to caste rather than the explained factor. So in the in the rural village social awareness more required than the giving more importance to endowment like education level, skill, land ownership etc. So the given result from the labour market discrimination conclude that wages difference arises

not due to endowment or different of economic factor rather it is determine by social factor like caste feeling or social grading system.

Relative contribution of variables to wage rate of CNAL: It is describe about the different variables how much contribution to the explained and unexplained factor on the average wage difference of casual agriculture labour work nonfarm sector. Like the casual agriculture labour market explanation on the discrimination measurement it also describe same ways in **table 6.14**.

Table 6.14 Relative contribution to Specific variables to the Decomposition of CNAL

Variables Name	SC-OBC			SC-HC		
	Explained (E)	Unexplained (C+U)	Total (E+C+U)	Explained (E)	Unexplained (C+U)	Total (E+C+U)
Age	0.041	0.224	0.265	0.042	-0.207	-0.165
Age square	-0.039	-0.120	-0.159	-0.040	0.141	0.101
Male	0.007	-0.248	-0.241	0.010	-0.319	-0.309
Household Size	-0.001	0.133	0.132	0.000	0.152	0.152
Illiterates	0.009	0.007	0.016	0.008	-0.001	0.008
Literate up to Primary	0.005	0.027	0.032	0.005	0.013	0.018
Middle	-0.002	0.006	0.004	-0.002	-0.002	-0.004
High School	-0.004	0.014	0.010	-0.003	0.000	-0.003
Agriculture land owned	-0.001	0.008	0.007	-0.001	-0.006	-0.007
Constant	-	0.161	0.161	-	0.397	0.397
Sub Total	0.015	0.212	0.227	0.019	0.168	0.188
Percentage of Sub Total	6.799	93.201	100	10.291	89.709	100

Variables Name	LC-HC		
	Explained (E)	Unexplained (C+U)	Total (E+C+U)
Age	0.063	-0.330	-0.267
Age square	-0.062	0.239	0.176
Male	0.014	-0.317	-0.303
Household Size	0.000	0.122	0.122
Illiterates	0.013	0.002	0.015
Literate up to Primary	0.008	0.023	0.031
Middle	-0.002	-0.001	-0.003
High School	-0.006	0.008	0.002
Agriculture land owned	-0.014	0.020	0.006
Constant	-	0.413	0.413
Sub Total	0.013	0.179	0.192
Percentage of Sub Total	6.763	93.237	100

Sources: Field Survey, 2016. Note: A positive number indicate advantage to higher caste and negative number indicate advantage to lower caste.

In the pairs of SC-OBC, proxy of age and sex male are negative figure come, which is indicate advantage to scheduled caste as compared to OBCs. That indicate by these two variables mean wage difference, SCs wages determined by the endowment rather than the treatment component where caste plays a major role in the wages. In the second pairs SC-HC, more than 10 per cent explained by endowment factor where education, land ownership, sex, household size etc. play on the wage rate determination. On the other hand 89.70 per cent explain due to caste scheduled caste and higher caste wage difference arises. That is not a good indicator like in a democratic nation where more focus on economic factor rather than social factor. Although the endowment factor explained more than other two pairs of discrimination measurement but causes of caste bear the major role on the determination of wages in rural non agriculture markets in villages.

In the third pairs LC-HC, wage difference on the relative contribution share are age square and household size, nut the indicator like age and sex male proxy negatively contributed to the total wage difference. In the conclusion of non agriculture labour markets discrimination of wages due to caste much more than the endowment factor like in agriculture labour markets. Although the share of discrimination factor among the pairs of LC-HC are same in both casual labour in agriculture as well as in non agriculture but in the pairs of SC-HC, in agriculture labour markets around 99 per cent happened due to caste matter where as in non agriculture it is describe 89.70 per cent.

6.4.3 Decomposition result of all Casual labour (CL): It is describe on taking both casual agriculture as well as non agriculture labour together. It is describe that the difference of mean wages among the pairs of social groups arises due to causes of explained and unexplained factor.

Table 6.15 Blinder Oaxaca Decomposition Result of ALL labour (CL) in 2016

Components of Decomposition	SC-OBC	SC-HC	LC-HC
Total Difference (TD)	0.167	0.138	0.151
Endowments (E)	0.008	0.010	0.014
Coefficient (C)	0.184	0.151	0.168
Interaction (U)	-0.024	-0.024	-0.031
Raw Differential (R=E+C+U)	0.167	0.138	0.151
Adjust Differential (D=C+U)	0.159	0.128	0.137
Endowment as % (E/R)	4.551	7.501	9.496
Discrimination as % (D/R)	95.449	92.499	90.504

Sources: Field Survey, 2016. Note: SC-scheduled caste, OBC-other backward caste, OTH- others, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number in endowment (E/R) indicate advantage to forward caste and a negative number indicate advantage to lower caste.

The contribution share of total difference of wages measure by the decomposition technique represented in **Table 6.15**. The caste prejudice or feeling of untouchable in the rural areas bear the main role of employment or wage difference. Caste is a factor for the wages determination and the share of composition to mean difference explain a vital portion among the pair of discrimination.

The average wages in the absolute figure of the scheduled caste is Rs. 246.05, other backward caste Rs. 291.27, lower caste Rs. 243.05 and higher caste Rs. 283.49. So in the absolute difference of average wage among the pairs of social groups describe that lower caste are getting less wages than the higher caste for the same work although the other explanatory component are same. So due to caste matter the wage gap arises among the pairs of SC-OBC are Rs. 45.21, pairs of SC-HC Rs. 37.44 and LC-HC are Rs. 40.44. In taking the all casual labour together for the measure of discrimination of total mean wage difference in the first pairs SC-OBC, 95.44 per cent causes for discrimination and rest 4.55 per cent for endowment factor. In the second pairs discrimination share to mean difference slightly reduce and it is explain 92.49 per cent. In the last pairs LC-HC, caste is matter for the mean difference of wages 90.50 per cent and endowment share explain less than 10 per cent.

Relative contribution of variables to wage rate of ALL casual labour: It is describe about the different variables how much contribution to the explained and unexplained factor on the wages of all casual labour work in both farm and non-farm. The wage gap among the pairs of social groups describe that scheduled caste are discriminate and are get less wages as equally qualified to other. The relative contribution to the casual labour wage difference explain in **Table 6.16**.

Among the share of wage difference arises due to caste matter although absolutely difference more (i.e., Rs. 45.21) among the scheduled caste and other backward caste but in the decomposition result prove that although discrimination factor share causes of lower wages larger than endowment but as compared to scheduled caste and higher caste or lower caste and higher caste discrimination causes share more than the SC-OBC. It is explain that due to caste matter and its relative share to explain the endowment factor in total of the pairs of SC-OBC negative figure to age and sex dummy male.

Table 6.16 Relative contribution to Specific variables to the Decomposition of CL

Variables Name	SC-OBC			SC-HC		
	Explained (E)	Unexplained (C+U)	Total (E+C+U)	Explained (E)	Unexplained (C+U)	Total (E+C+U)
Age	0.023	-0.843	-0.819	0.027	-1.043	-1.015
Age square	-0.022	0.386	0.364	-0.025	0.557	0.532
Male	0.004	-0.025	-0.021	0.005	-0.072	-0.068
Household Size	-0.002	0.131	0.130	-0.001	0.134	0.133
Illiterates	0.005	0.021	0.027	0.005	0.010	0.016
Literate up to Primary	0.010	0.040	0.050	0.009	0.028	0.037
Middle	-0.004	0.014	0.010	-0.004	0.003	0.000
High School	-0.006	0.020	0.014	-0.004	0.004	0.000
Agriculture land owned	-0.001	-0.005	-0.006	-0.002	-0.011	-0.013
Constant	-	0.419	0.419	-	0.517	0.517
Sub Total	0.008	0.159	0.167	0.010	0.128	0.138
Percentage of Sub Total	4.551	95.449	100	7.500	92.500	100

Variables Name	LC-HC		
	Explained (E)	Unexplained (C+U)	Total (E+C+U)
Age	0.041	-1.085	-1.044
Age square	-0.038	0.595	0.557
Male	0.006	-0.048	-0.042
Household Size	-0.001	0.101	0.100
Illiterates	0.015	0.019	0.035
Literate up to Primary	0.012	0.040	0.051
Middle	-0.003	0.003	0.000
High School	-0.005	0.004	-0.001
Agriculture land owned	-0.013	0.010	-0.003
Constant	-	0.498	0.498
Sub Total	0.014	0.137	0.151
Percentage of Sub Total	9.496	90.504	100

Sources: Field Survey, 2016. Note: A positive number indicate advantage to higher caste and negative number indicate advantage to lower caste.

This is indicate that scheduled caste are advantage to the above two component for the wage determination where caste does not matter for much wage difference among them. In the second pairs of SC-HC, scheduled caste are advantage on the components of age, sex dummy of male and agriculture land owned. The relative share more explain in age square and household size in the total wage difference. In the third pairs of lower caste and higher caste relative share explain that endowment share increases as compare to previous pairs. In this section relative share contributed by the four indicator like age, sex dummy male, if the individual educate high school and agriculture land owned negative figure come, which indicate it is positively impact to the wages of lower caste on reducing the caste matter.

So we can say that caste matter for the average mean wage difference among lower caste and higher caste comparatively less than the previous pairs of wage difference. In the conclusion we can say that caste based discrimination on wage difference arises among the lower caste and higher caste due to less than 10 per cents share by endowment. The caste prejudice or biases bear the vital role in the difference of wages in rural labour markets. The decomposition result prove that in the casual non agriculture labour markets discrimination more exist than the agriculture labour markets in analysis of all the pairs of compression.

Thus we can observe that in Odisha labour market or casual daily wage market discrimination arises due to caste more than the endowment. We can see the treatment difference (caste matter) explain the vital role on the determination of wages of casual labour rather than the endowment factor. In the pairs of study scheduled caste and other backward caste in casual agriculture labour share of unexplained factor describe 97.72 per cent as compared to in non agriculture casual labour 93.20 per cent and in all casual labour 95.44 per cent to total wage difference. In the second pairs of scheduled caste and higher caste in agriculture labour markets caste difference arises explained by 99.22 as compared to non agriculture labour market 89.70 per cent and in all labour markets it is 92.49 per cent. In the comparison of lower caste and higher caste wage difference arises due to caste matter explained by 93.85 per cent in agriculture, 93.23 per cent in casual non agriculture labour market and in all labour markets 90.50 per cent to total difference. Thus, in rural Odisha labour market caste discrimination charter bear the major role of the wages not only among the lower caste and higher caste but also in the other sub caste groups in the society.

6.5 Determinants of Wage Rate: To estimate the wage determination components in the function of ordinal linear regression as well as logistic regression each of the category of workers from each of social groups are measure. It is based on the basically primary data but one regression is based on the 68th (2011-12) level analysis. The logarithm of per days wage of casual agriculture labour as well as in non agriculture labour are taken together as dependent variables and independent variables are age, household size, gender, education level, loan amount of household from formal and informal sources, agriculture land ownership, caste dummy and length of working hours etc. The definition of variables and the descriptive statistics of variables used in the ordinary linear regression model and logistic regression model describe in the **Appendix 6.5**. It is taking the all village total workers working as casual labour in the villages.

It would measure, how Caste is important to determine the wages of labour markets in rural Odisha. Thus ordinary linear regression (OLS) measures the explanatory variables influence to the wage rate of casual labour in rural villages. So, it is describes how the wage rate of casual labour influences by age of the individual, household size of the individual labour, if the individual belong to male, literacy level, loan amount from formal and informal sources, agriculture land owned of the individual family and caste dummy. In **Table 6.17**, explains about the OLS result from the four village of two districts in Odisha. It is described separately of casual agriculture labour (CAL), casual non agriculture labour (CNAL) and all labour (jointly taking both casual agriculture as well as non agriculture labour).

Table 6.17 OLS result of Casual Labour Wage Rate (i.e., CAL, CNAL and BOTH)

Variables	CAL		CNAL		BOTH	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Age	0.0049	0.87	0.0149**	2.4	0.0092*	1.72
Age square	-0.0001	-0.9	-0.0002***	-2.64	-0.0001*	-1.88
Household size	-0.0013	-0.23	0.0099*	1.74	-0.0005	-0.1
Male	-0.0298	-0.66	0.2818***	5.08	0.1468***	3.18
Illiterate	-0.0868	-1.73	-0.0708	-1.4	-0.0788*	-1.72
Up to primary	-0.0660	-1.43	-0.0507	-1.1	-0.0675	-1.59
Middle	-0.0171	-0.33	-0.0006	-0.01	-0.0255	-0.54
Matric	-0.0173	-0.37	-0.0466	-1.01	-0.0578	-1.35
Formal loan	0.0000	0.17	0.0000	1.39	0.0000	0.83
Informal loan	0.0000***	-3.35	0.0000***	-2.94	0.0000***	-3.09
Agri. Land own	0.0172	0.82	-0.0103	-0.33	-0.0297	-1.11
Caste SC	-0.1067***	-2.66	-0.0578	-1.34	-0.0667*	-1.8
Caste ST	-0.1946***	-4.23	-0.0823	-1.63	-0.1168***	-2.74
Caste OBC	0.0264	0.67	0.1522***	3.53	0.1086***	2.9
Working hour	-0.0440***	-4.94	-0.0749***	-7.25	-0.0446***	-4.58
Constant	5.8678	38.22	5.5692	32.75	5.6346	38.37
R-square	0.2067		0.3250		0.2634	
Adj. R square	0.1732		0.2972		0.2283	
F	6.17		11.71		7.51	
Number	317		381		331	

Sources: Field Survey, 2016. Note: Statistically significance level: *** indicate 1 percent level, ** indicate 5 percent level and * 10 percent level. Reference category: Female, More than Matric, Caste Others.

The given OLS result in the above table describes that wage rate of casual agriculture labour is influenced significantly by informal loan. If the informal loan of the household increases it positively increases the wages of casual agriculture labour. That indicates that if the labour has advanced loan from any formal sources he will be engaged to earning more wages from the agriculture labour in village. As the individual belong to scheduled caste, it influences the

wage rate more than other caste. The reference category of caste is others. So caste of SCs, STs are highly significant to determine the wage of work in agriculture. Working hours or length of working hours has had highly positive impact on the wage rate of casual labour in village. It indicates that if the working hours increases, wage rate will be increased accordingly to the work of agriculture.

In the casual non agriculture labour, ordinary regression result describe that wage rate are influence by the 5 level of significant. It is positively affect to the wage rate in working in village as casual labour. But the age square indicate highly negatively influence do the wage rate. So that if the age of workers increases the wage rate decrease in the non agriculture labour markets. In the gender male is highly one percent level of significance to the wage determination, that indicate that work in non agriculture by male as compared to female wage rate influences. The loan from informal sources also positively impact on the wage rate of non agriculture labour markets in rural Odisha. If the informal loan raise the individual wage rate or earning capacity rises. The caste of OBCs as compared to others influences highly to the wage rate and working hours are negatively related to wage rate of non agriculture labour markets. In taking the both casual agriculture and non agriculture labour together the ordinary regression result describe that gender male, loan from informal sector, caste dummy of STs, OBCs and working hours are highly influences or level of significance of these variables are one per cent. Among them caste STs and working hours are negatively related whereas sex male, informal loan, caste OBCs are positively impact on the wage rate. Other variables like age, age square, illiteracy, caste SCs are come under the 10 per cent level of significance. So in wage rate of casual labour highly explained by the different variables in the labour markets in rural Odisha.

On the other hand if we see caste wise, only casual agriculture labour wages of rural Odisha from the NSSO 68th round found that some factor like education, sex and region significantly affect the determination of wages in the labour markets. The details of the caste wise OLS result put in the **Table 6.18**. The dependent variables are taking as log wages per days and the independent variables are almost same type as the above tables. The descriptive statistics of each of the variables used in this model kept in **appendix 6.6**. The caste wise analysis of wage rate of casual agriculture labour taking in all caste describe that sex male and region coastal are highly influences the wage rate of the agriculture labour in rural areas. The variables like age, square of age and household type also affects the wage rate of labour by the level of significance 5 percent. However, the square of age negatively affect to the

wage rate. It is described that if the wages increases double the wage rate of agriculture labour reduces.

However, in the social group wise analysis, in scheduled tribe casual agriculture labour wages are determined more significantly by education level and regions basis. If the individual labour are more illiterate then he wage rate reduces and if education increases like up to primary, it positively influences the wage rate. That means if the level of education increases the wage rate of labour also increases. It is also varies as compared to northern and the coastal region, which positively affects the increase the wage rate. In the scheduled caste wage determination factor indicate that not much is explained by the model except the regional influences. The wage rate increases in the coastal and southern region as compared to northern region in rural areas of Odisha.

Table 6.18 Ordinary Least Square (OLS) result of Casual Agriculture Labour wage rate caste wise in 2011-12 in rural Odisha

Variables	ST		SC		OBC		OTH		ALL	
	Coeff.	t-value	Coeff.	t-value	Coeff.	t-value	Coeff.	t-value	Coeff.	t-value
Age	0.0189	1.58	0.0279	1.5	-0.0020	-0.17	0.0106	0.66	0.0164**	2.1
Age square	-0.0002	-1.59	-0.0004	-1.54	0.0001	0.41	-0.0001	-0.4	-0.0002**	-1.95
Household Size	-0.0068	-0.45	0.0178	0.92	0.0526**	2.17	-0.0060	-0.2	0.0203**	2.1
Male	-0.0421	-0.73	0.0342	0.38	0.3115***	4.66	0.2269	1.65	0.1283***	3.13
Illiterate	-0.198***	-3.00	-0.0168	-0.18	-0.0607	-0.66	-0.1996**	-2.18	-0.0582	-1.33
Up to Primary	0.1770***	2.64	0.0838	0.82	0.0107	0.12	-0.2079**	-2.3	0.1181	2.61
Land owned	0.0000	0.02	-0.0002	-1.06	0.0000	0.16	0.0000	-0.19	0.0000	-0.43
Coastal Reg.	0.6208***	5.44	0.6475***	5.7	0.1511**	1.93	0.1515	1.23	0.4051***	9.89
Southern Reg.	-0.1292**	-2.58	0.3366***	2.98	-0.0123	-0.19	-0.578***	-3	0.0127	0.33
If HH as SEA	0.5853	1.55	-0.1292	-0.23	-0.3969*	-1.71	0.4340	0.93	-0.1224	-0.64
If HH as SENA	0.6754*	1.74	-0.3401	-0.52	-0.3162	-1.52	0.1015	0.22	-0.0589	-0.3
If HH as CAL	0.5689	1.53	-0.0081	-0.02	-0.1151	-0.56	0.1412	0.31	-0.0969	-0.53
If HH as CNAL	0.5677	1.50	-0.0444	-0.08	-0.1489	-0.71	0.3857	0.85	-0.1649	-0.88
Constant	3.6513	8.15	3.6613	5.9	4.3341	13.67	4.1602	6.53	4.0414	17.06
R-square	0.4551		0.4859		0.4807		0.7649		0.3793	
Adj. R square	0.3984		0.4090		0.4081		0.6260		0.3574	
F	8.03		6.33		6.62		5.51		17.34	
Number	139		101		107		36		383	

Sources: Unit level calculation from 68th NSSO, 2011-12. It is calculate from current weekly status (CWS) of code 51 and current weekly activity status of NIC2008 less than 0.03229. Note: Note: Statistically significance level: *** indicate 1 percent level, ** indicate 5 percent level and * 10 percent level. The descriptive statistics and Reference category see Appendix 6.6.

In the other backward caste wages of agriculture labour determined is by sex, household size, region and household type. The gender like male have highly significant affect the wage rate of agriculture labour, on the other hand household size and region coastal influences at 5 percent level and if the households belong to self employed in agriculture affect in 10 per cent level. The other caste cases, wage rate of casual agriculture labour negatively affect by the educational level. Like if the individual are more illiterate or literate or completed up to primary level the wage rate decreases. So that the higher caste education level significantly influence the wage rate in rural agriculture sector. In the southern region as compared to northern region wage rate reduces or negatively related. That indicate in this region work as agriculture labour by the caste of other (means higher caste) wage rate reduces with the region.

6.6 Logistic Regression Result from the study of villages: After the analysis of ordinary linear regression, the logistic regression technique to measure what are the probability or chance a scheduled caste work as casual agriculture labour as compared to other or higher caste.

Box 6.2: Description of Variable specification for Logistic Regression:

Variables	Description
<i>Dependent variables:</i> if PrimryOccu = 1	If the individual primary occupation as casual agriculture labour (CAL) = 1, otherwise 0. Like for CNAL =1 otherwise 0 and lastly if primary occupation as CL =1 otherwise 0
<i>Independent variables:</i> Age (age)	Age is taking on the range of 18 to 72 years. In rural areas they are work as labour instead rest in old ages. (years)
Age square (age2)	It is the square of current age of individual or labour (in years)
Sex (sexdmy1)	If the casual labour belong to Male 1 other wise 0 (<i>Female</i> Reference category)
Household size (hh_size)	Household size or member of family of casual agriculture labour. It is the total family member of casual labour.
General education (edu_attan)	It is taking dummy each of the education status. It is categories seven types like Illiteracy (1), Up to primary (2+3+4), Middle (5), Matriculation (6), and Reference category is <i>More than Matriculation (7+8+9+10)</i> .
Illiteracy (edu_attadmy1)	If the individual or casual labour illiterate then = 1 other wise 0
Up to primary (edu_attadmy2)	If the individual or casual labour literate or study up to primary 1 other wise 0
Middle (edu_attadmy3)	If the individual or casual labour study M.E school (6 to 8 class) then = 1 other wise 0
Metric (edu_attadmy4)	If the individual or casual labour literate in high schooling (9 to10 class) then = 1 other wise 0
Total informal loan (tot_formloan)	Total formal loan amount of casual labour in Rs. up to current date
Agri. Land owned (agriland_owed)	Casual labour agriculture land owned in acre is a continuous variable.
Caste1	If the individual belong to SC = 1 otherwise 0
Caste2	If the individual belong to ST = 1 otherwise 0
Caste3	If the individual belong to OBCC = 1 otherwise 0 , <i>OTH caste</i> Reference category

Note: Italic categories are used as reference category in the regression models.

The description of the variables used in this binary logistic regression model put in **Box 6.2**. The regression result explain in the **Tale 6.19**. It is describe the individual level determination of working as casual labour in agriculture, non agriculture as well as in the both in rural areas. The labour market characteristics on the pattern of employment and variation among the different sector in the village. The total sample workers in four villages is around 669, out of them around 383 work as casual agriculture labour and 393 workers work as non agriculture labour. To investigate the determinants of individual workers engagement in agriculture as casual agricultural labour or engaged in non agriculture. We use a binary logistic model to estimate the dependence on as casual labour and its relation to other variables. The results for binary logistic regression finds out the determinants of casual labour engagement or participation in the agriculture or non agriculture depicted in **Table 6.19**.

Table 6.19 Determinants of work as Casual Labour in 2016

Variables	CAL		CNAL		Both	
	Odds Ratio	SE	Odds Ratio	SE	Odds Ratio	SE
Age	1.243***	0.073	1.261***	0.055	1.360***	0.058
Age square	0.998***	0.001	0.997***	0.001	0.997***	0.000
Male	0.754	0.340	3.400***	1.529	3.214**	1.469
Household size	1.029	0.056	0.983	0.041	0.997	0.043
Illiterate	2.066	1.001	2.357**	0.859	5.378***	2.319
Literate up to Primary	1.633	0.729	1.630	0.503	1.957**	0.609
Middle	1.892	0.967	1.900*	0.682	2.307**	0.841
Matric	0.897	0.422	1.219	0.360	1.099	0.325
Total Informal loan	1.000	0.000	1.000	0.000	1.000	0.000
Agri. land owned	0.879	0.197	0.699**	0.113	0.666**	0.107
SCs	2.840**	1.149	1.341	0.400	2.643***	0.802
STs	3.657***	1.687	1.939*	0.692	5.784***	2.313
OBCs	0.777	0.328	1.187	0.347	1.079	0.314
Constant	0.000	0.001	0.001	0.001	0.000	0.000
N	650		650		650	
Log Likelihood	-251.50		-385.13		-346.68	
Pseudo R2	0.1911		0.0757		0.2292	

Sources: Sources: Primary Survey, 2016 Note: Statistically significance level: *** indicate 1 percent level, ** indicate 5 percent level and * 10 percent level. Here dependent variable as a workers work in CAL/CNAL equal to 1 otherwise zero.

The regression result describe that the probability of a individual work in the casual labour in the study villages is influenced by different variables mentioned in the above box. First we discuss about the casual agriculture labour entering into the work in the farm or land. The age and square of age significantly influence the work in farm as a casual labour. The status of

caste belong to scheduled caste and scheduled tribe work as casual labour in agriculture also highly positively significant. In the case of casual non agriculture labour work age, age square also highly significant to work or entering into doing nonfarm work. In the gender sex male also highly significant to work in the non farm work than the female in the study villages.

If the individuals are illiterate, the chance of work in non agriculture labour is also highly significant than the literate workers. This indicates that if the worker is illiterate he is more likely to work in the non farm sector as an casual non agriculture labour. Agriculture land owned also moderately means 5 percent level of significant with the relation of work as casual non agriculture labour in the villages. However the case dummy, only scheduled tribe workers work in the non agriculture sector for daily wage labour than the scheduled caste and other social groups. So the other than STs, all caste are insignificantly associated with the work as casual non agriculture labour. In the third row about the whole labour work as in both agriculture as well as non agriculture which is generally called as casual labour (CL). All the explanatory variables positively associated with the dependent variables in this category of work. Interestingly, the result of work in casual labour of a workers other than the engaged in other occupation highly significant as compared to the work in agriculture work or non agriculture work. The result from the **Table 6.19**, indicates that a workers enter the work or are ready to work as casual labour and are significantly affected by the age, square of age, male, illiterate or literate in below primary or middle, agriculture land owned, caste dummy of scheduled caste and scheduled tribe. Among the variable most of the variable like age and square of age, education and caste of SCs and STs highly means one percent level of significance. In the rural Odisha people are more likely to work as casual labour than the other activities due to their economic status. In this case we find that the caste dummy on reference to OTH caste (higher caste), scheduled caste and scheduled tribe are more likely to work as casual agriculture as well as non agriculture labour than the other caste. The caste discrimination in the rural labour markets also pull down the work as casual labour in the villages. There are more chance a scheduled tribe person working as casual labour in agriculture and all casual labour work, in the other hand scheduled caste also work as casual labour in agriculture than non agriculture labour work. It is prove that a individual belong to lower caste like SC/ST have more chances of working in casual labour than the OBCs or others. So the occupation of workers belonging to a particular caste also explains what will be your occupation in the rural villages. In the rural areas of Odisha, people belong to lower

caste do per days work as in non agriculture or any work for the daily wage labour more than the higher caste. Because the higher caste prefers to work in skilled or high wage labour work like work as carpenter, home making, machinery repairing work, cooking, driving etc. Due to restriction in the village for the open choice based occupation, lower caste not able to enter to the other occupation¹ except work as casual labour in the village.

6.7 Summary of the Chapter:

First of all we found that caste based inequality in rural areas on occupation of workers varies from place to place. The characteristics of labour markets operates not with the economic rule rather it is work by the social factor like the caste, gender etc. So the occupation of the worker is determined by his caste or sub-caste that he belongs to. First of all they are not allowed to enter into some of the occupations which are only fixed for the higher caste. this also happens as a result of lack of economic betterment of the lower caste workers and they are dependent on daily wage labour work or are forced to work in soem leased in land of the landlords or higher caste people. Although they want to change their occupation from manual work to trend work, higher caste tries to pull them dow because if the lower caste becomes rich, the village exploitation will have to stoop. The villagers of Mukundapur express that even if they want to work in the low wage rate higher caste does not take them in as to low caste or untouchable. They do not find employment in a few sectors due to caste issues. We can imagine how they are discriminated in the market. This does not happened only in villages where low caste population shares less as compared to higher caste but also in the villages like Mukundapur where around 40 per cent of total village population belongs to low caste or Pano, Majhi, Domo type sub caste. So the strength of population does not matter for this type of evil in the villages. Caste is a factor for the determination of employment as well as wage rate and working hours.

Large section of workers work in the non agriculture sector as a daily wage labour in the day to days schedule. The lower caste like SCs and STs work more in the daily wage labour in non-agricultural sector than the higher caste. The average working hours for the given wages in village, the lower castes have to work more hours than the higher caste. In the workplace

¹ Lower caste not work in cooking as in the festival or ceremonies, not able to work which is directly attached with the higher caste activities. They also not permitted to home work (like enter to home) which have to done enter inside the house like electricity work or colour work. Because in the study village lower caste said that the higher hire the labour or workers from outside the village who are belong to their caste rather than taking from village due to caste feeling or untouchable feeling. So they are fixed in the occupation in village and some extend it is less outside in village where caste not much matter for this type of work.

lower castes do not find any type of incentives like food from the higher caste employers, where as if the workers belong to their caste they are provided with food. The interval of wage payment for the respective work is delayed by so many higher castes. But it varies across the village, because in the village of Kanikapada, people find their wages on that day or the next days after work because they are poor and need the wages for maintaining the family. The logistic regress also proves that low caste people are more likely to work as casual labour in both agriculture as well as in the non agriculture than compared to higher caste.

Thus in overall caste based discrimination in the rural areas exist not only in the wage payments but also in the some other section of the labour markets which is interlinked with the labour markets. So we can say in the rural labour markets caste based discrimination prevails in both agriculture as well in the non agriculture. The cause of caste wage difference among the social groups or lower caste emerges when we compare the wage rate among higher caste and lower caste for the same type of work. It is not much explained by the endowment factor rather caste the caste, where the vital portion of the wage gap explain by treatments factor. So the wage difference in rural Odisha cannot be eliminated by the raising of endowment factor rather than eliminating the caste based feeling in the mind of higher caste can help. Although the endowment factor has been explained in all the pairs but in all sectors more than ninety per cent difference in wage gap is explained by treatment factor and less than by the endowment factor. So we can conclude that wage gap between the lower caste and higher caste can be reduce through awareness among the higher castes and through the progress of economic condition. Because due to their poverty caste based exploitation or discrimination is passed on by the higher castes from one generation to the other.

PERCEPTIONS TOWARDS CASTE-BASED DISCRIMINATION

7.1 Introduction:

Caste-based discrimination is not limited to wage discrimination in the labour market. Often, discrimination in one market has a spiralling effect on other markets. Market and non-market discriminations are also interrelated. This study is primarily focused on discrimination in the economic sphere. But the causes, manifestations and implications of discrimination is not limited to the economic sphere alone. The consequence of non-market discrimination further pulls down the progress of lower caste, irrespective of various governmental steps to the development of socially backward groups. However, the level of discrimination varies from state to state and is related with the social and historical context which have shaped the relationship among castes. Unequal access to certain social assets and exclusion from or participation in the graded institutional structures, perpetuates caste based discrimination.

This section of the study focuses on the caste based discrimination on the rural Odisha other than labour markets. It describes the perception of people from the marginalised communities towards day to day life and their perception about discrimination. Unequal treatment of individuals based on their birth status, various degrees of social exclusion based on group status and social segregation of the marginalised groups are some of the important features of the caste system in India. Though caste based discrimination has been found to be present among different social and religious groups in South Asia, it is particularly severe among the Hindus in India (Borooah, 2017). The diagrammatical caste system of an occupational structure about the four castes in Indian caste system describes that individual occupation is determined by his birth. Which is fixed and continues to his death. In the ladder of this caste system there is a line of pollution where only scheduled caste or Dalits, considered outside the Varna system are considered as impure and 'untouchable'. Their main traditional occupation is service to the other four groups and they are generally attached with manual work or unclean tasks (Barooah et al. 2015). Typically, they are forbidden from ownership of durable assets like land and are forbidden from entry into important social spaces and institutions (Thorat and Newman, 2008). Caste based discrimination in rural areas push the certain groups out of the village and categories these people as deprived and backwards. Spatial segregation reinforces social segregation and isolation. The practice of caste discrimination is not only seen in the labour markets, but also in the other market like the land market, credit market, output market. But the ability to participate in and benefit

from the transactions in these market is conditional upon access to various kinds of non-tangible assets like trust, friendship and membership of social networks.

Deliege (2002) argues that in India, the people at the bottom or outcastes of the caste system do not face much discrimination due to caste rather it arises due to an economic problem like unemployment, inequality of assets distribution like land etc. It does not mean that unemployment is not prevalent among other social groups. Because of their weak economic position, lower castes are suffering more than the higher castes. In a context where opportunities are tied to the identity of individuals, they cannot enter the other occupations due to societal restrictions (Deliege, 2002).

For the following analysis, ‘the lower caste’ includes scheduled caste and scheduled tribe and higher caste includes other backward castes and others. Among the lower castes, around 75 per cent of the respondents belong to scheduled castes and rest are scheduled tribes. The village wise lower caste proportion of individual respondents have been presented in **Table 7.1**.

Table 7.1 Distribution of respondents in the study villages: SC and ST

Name of Villages	SC		ST		SC/ST	
	Number	Percentage	Number	Percentage	Number	Percentage
Kanikapada	30	19.48	29	54.71	59	28.50
Mukundapur	34	22.07	16	30.18	50	24.15
Rahania	46	29.87	8	15.09	54	26.08
Chudamani	44	28.57	0	0	44	21.25
All villages	154	(100) [74.4]	53	(100) [25.6]	207	(100)[100]

Sources: Field Survey, 2016 Note: Square brackets indicate column total.

The village wise proportions of respondents are more or less as equal to around 25 per cent of the total sample. In the two districts although share of the scheduled tribe population is less, some people have migrated from other areas and have been living in these villages. So the analysis presented in this chapter is based on the perceptions of the 207 lower caste respondents. While discrimination may be present as a social phenomenon, people’s perception regarding this might not be uniform. It is important to examine the perception of the marginalised groups regarding discrimination, as such awareness and perception is often found to be critical for their emancipation. The perception of the Dalits could have a bearing

on the effectiveness of various the affirmative action policies implemented by the government. In first section describe the perception of the lower castes on transactions of land have been discussed. The second section describes the practice of untouchability in the villages in the different spheres.

7.2 Perception on Land Market Discrimination:

Land is an important asset in the rural context. It is not only a productive asset that can contribute to a flow of income, but also an indicator of social status. The transfer of land from SC/ST communities to higher castes have been restricted by the government¹, but in the practice, higher castes are able to buy land from lower castes with the help of local politicians. A recent report on land rights in Odisha argues:

Though the law makes provisions for the protection of such allottees such cases are rarely reported when suo moto action is taken. The amount of illegal land transfer that takes place is more than that reflected in government records. Similarly the restoration of land, which means ensuring of actual possession, is carried out more as an official requirement by many officials rather than an actual implementation. Thus, actual possession of the land which is lawfully given to the people by the government cannot be acquired and it is difficult to expect the restoration of illegally transferred land (UNDP, 2018:18).

Out of 207 SC/ST households, 84 per cent responded that due to restriction higher caste are not able to buy land from them. Thus, 16 per cent of responded feel that they can sell their land to the higher castes (**see appendix 7.1**). The caste feeling makes market failure more acute in the rural areas than in the urban areas, because demand and supply of land market breaks down. On the question of land transactions, lower caste respondents feel that higher caste people do not buy any land in the areas where they live due to caste bias. Even though the price of land is lower than the market rate, higher castes do not buy the land in Dalit localities. Out of the total sample, 40 per cent say they can buy land for residential purpose in our localities and sixty per cent deny to buy the land from our localities. In the two villages of Jajpur district this type discrimination more than that in the Bhadrak district. In Kanikapada, 73 per cent respondent told that the upper castes do not buy any land in their localities for residential purpose whereas in Mukundapur 82 per cent response the same argument. In the

¹ 'As per section 22 of the Orissa Land Reforms Act, any transfer of land that belongs to Scheduled Castes and Scheduled Tribes to people who are not from this group without prior permission of the competent authority is declared void. Under Sections 23 and 23A of this Act, there is a provision for restoration of land to Scheduled Castes and Scheduled Tribes if it has been transferred without prior written permission of the competent authority or if the land has been under unauthorised occupation by those who are not Scheduled Castes or Scheduled Tribes' (UNDP, 2018: 18).

village of Rahania around 46 per cent reported that higher castes do not buy land in our localities for living purpose and in Chudamani it is 36 per cent. While the reluctance to buy land in Dalit localities could partly be explained because of the legal problems associated with land transfer, FGDs with Dalit informants suggest that it is not only that there is a reluctance to buy land from the Dalits, rather the reluctance is to buy any land located near the Dalit hemlets, presumably because of the stigma associated with the locality.

So far as taking houses on rent is concerned, generally there is no interest to take the house of Dalits on rent, even if the houses are located on the roadside. Around 50 per cent of SC/ST respondents said that all higher caste deny to rent their houses to them, 14 per cent respondent said some specific individuals belonging to higher castes like Karana, Brahamin, Raju, Gaudo deny to stay in our rented homes, otherwise all others have started provide the land to lower caste for rented purpose for stay. The village wise this type of discrimination is found to be much more in Chudamani, where 70 per cent of all respondents said that the higher caste deny to stay in the lower caste rented home (**see appendix 7.1**). Even if lower caste bureaucrats or officers search for rented house, they also face discrimination by the higher castes. More than 27.5 per cent of respondents said whatever be the position of Dalits or lower caste people, they do not get accommodation on rent in the home of the higher caste. However, around 60 per cent of individuals said that Dalit officers and government employees can rent houses easily because of their position.

From the analysis of the Table **appendix 7.1**, we found that when the lower castes attempt to buy homestead land in the higher caste localities they are refused by the higher caste. Around 29 per cent of respondent told that all higher castes refuse to sell the homestead land to lower castes or especially to Dalits. Among the total respondents, 30.6 percent said no chance to buy the land in their localities and 40.5 per cent said some specific groups basically belong to other backward castes like Teli, Barika, Kamaro are allowed to buy in the upper caste dominated localities. There are some inter-village differences in the perception of people on this question.

In order to probe the perceptions regarding denial of rights to lower castes and Dalits to buy land in upper caste localities, supplementary questions were asked on the reasons behind such refusal. Out of the total respondents, 25.6 per cent told that lower caste are denied the right to buy land in the localities where higher castes live and 25.6 per cent said that they are unwilling to buy the land in the higher caste localities. Among them, 17.4 per

cent say that they will face problem in future; and hence they do not buy the land and 16.4 per cent said higher castes do not want to give the land to Dalits. In the village wise face restriction to buy homestead land by Dalits from the higher caste we find that, out of the respective village sample in Kanikapada, 37.3 per cent lower caste are unwilling to buy the homestead land in higher caste localities, whereas 27.1 per cent of respondent in Kanikapada says due to restriction we cannot buy land from higher caste and in the same village 13.6 per cent respondent said that higher castes prefer not to sell homestead land to Dalits for living purpose in their localities (see **appendix 7.1**). Around 15.3 per cent of lower caste respondent in Kanikapada said that we do not prefer to stay in the higher caste localities because they may create the problem in future. In Mukundapur, 46 per cent of respondent told that we are unwilling to buy or live in the higher caste localities. In Rahania, 30 per cent of respondents told that higher castes restrict sell of their land to people from other than their own caste. Around 22 per cent told that we are unwilling to buy in that localities as in future higher caste may create the problem and 20 per cent said higher castes demand higher price for the lower caste to buy in their localities to lower caste. In this way low caste people face discrimination when they try to buy the land in higher caste dominated areas. In Chudamani, 36.4 per cent of respondents told that higher castes restrict to sell the land other than own castes in their localities and 27.3 per cent said that fear of facing problem in future prevents them to buy land in higher caste localities.

In the land transactions involving the higher and lower castes, it was mentioned that when the lower castes, sell land higher caste buyers offer lower than the market price and when the lower caste people want to buy land higher caste sellers demand a higher price. This is also depend on the type of land. Nearly 53 per cent said it is more likely in sale and purchase of homestead land and 38.8 per cent reported that it happens in all types of land and only 8.3 per cent said that it happens more in the case of agricultural. The village wise study of variations in the land transactions among the lower caste and higher castes, suggest that in Kanikapada 65.5 per cent respondents told more or less price to provide to lower caste for homestead land cases. (**appendix 7.2**).

On the perception regarding buying of agriculture land by lower caste from the higher caste, it was found that 83 per cent respondent reported that if they want to buy agriculture land, it must be far away in the village. On the other hand, 76 per cent respondent told that if they want to buy it is to be far away from the irrigated zone or far away from the catchment areas of water supply. So the transaction of land among the lower castes and higher castes in

agriculture land, operates with the framework of caste. More than 66 per cent of respondent told that if they want to buy any agriculture land from the higher caste it must be located far away from the water catchment areas. Also, the land is generally less productive than other lands in this areas. More than 54 per cent of respondent said that they were not permitted to buy the land in the middle of land belonging to the higher castes. Such perception is more widely prevalent in the village of Kanikapada and Mukundapur than in other villages (**appendix 7.2**). In the villages of Bhadrak district, only 42.6 and 29.5 per cent of the respondents of Rahania and Chudamani said higher caste object to purchase of land in the middle of higher caste land. Most of the lower castes cultivate land through the leasing-in land from the higher castes. They have to work in the home of landowner to get the land-lease in the next period. If they cultivate under the fixed rent contract, they have to pay higher rent than the higher caste tenants. Around 76.8 per cent respondents reported that they have to give more rent for the cultivation than the higher caste. It is more widely prevalent in the villages of Rahania and Chudamani of Bhadrak district than the village of Jajpur district.

The practice of untouchability and caste-based discrimination in the rural areas of Odisha is not only wide-spread in the land, labour or credit markets, but also in all the spheres and in every aspect of the day to day life. Such discriminatory attitude is faced by the Dalits irrespective of their status or economic background. From the field survey, it comes out clearly that lower castes do not have equal rights as others. Taking the example of land and land related transactions, evidence presented in this section shows the way lower caste people perceive their own marginalisation. There are variations in their perceptions and some of them have a very strong feeling that they are being discriminated in the sale, purchase or leasing in of land. The inter-district variations are also important. The details of the practice of untouchability in rural Odisha has been taken up in the next section.

7.3 The Practice Untouchable in the Villages of Odisha:

Untouchability has been made illegal in India. Yet, it is being practiced in various forms (Thorat and Joshi 2015). Untouchability is practiced in various forms, such as restrictions on eating together with persons from other castes, separate glasses or utensils, discriminatory seating arrangements in restaurants or other public places, segregation in village or community functions, prohibitions from entering temples and other places of worship, prohibitions from entering the homes or kitchens of people from other castes, separate ghats in ponds and common water bodies, separate burial grounds etc. In specific

regional contexts these practices might vary. It is difficult to get a comprehensive assessment of the practices of untouchability through a single period, field-survey based study. Untouchability is part of the experience of those against whom such discrimination is practised, it is also dynamic phenomenon that has changed over time. Only some aspects of the practice of untouchability have been discussed here, on the basis of the perceptions of the Dalits.

7.3.1 Access of Drinking Water: Normally Dalits are not allowed to touch the drinking water of other castes. In the case of private tube well such a practice is more widely prevalent. Around ninety per cent of lower caste respondents said that they are not permitted to take water from the private tube well of upper castes. In the village Mukundapur, 94 per cent said that they were not able to take water from the tube well of others (**Table 7.2**). It is the notion of purity and pollution inherent in the idea of untouchability that is behind such denial. On the response of how higher caste practice untouchability in water, more than 40 per cent say higher caste directly refuse to take the water, 30.9 per cent households say due to we are lower caste we have to wait for a longer period of time to fetch water from common sources. Dalits are allowed to take water only after other had taken the water they need. After the Dalits take water ,higher caste persons generally wash or pour the water in the whole tube well, according to around 28 per cent of households. 48 per cent of lower caste respondents in Mukundapur said that people of higher caste directly denied to provide the water to Dalits from their private tube wells. So they have started taking the water from the government tube well. In the village Kanikapada, 40 per cent of households says after they take water higher caste persons wash the whole tube well. Around 35 per cent of lower caste households in each of villages Mukundapur and Rahania respond that they have to wait for longer period of time when they are going to take water from private tube well of higher castes households, when the government tube well breaks down.

7.3.2 Access of Common Property: The village commons are an important source of survival for the poor. But access to such critical resources are often mediated through caste and Dalits are generally denied the rights to access the village commons. More than 60 per cent of households in Kanikapada, said that they could use the common property resources like grazing land, ponds, public place etc freely (Table 7.2).More than 62 per cent of total households in four villages said that if they (lower caste) used the ponds or grazing land higher caste do not use this same resources. As the resources used by the Dalits are considered to be polluted and unclean by the higher castes. More than 60 per cent among

respondents from each of the villages, reported that if they use any common property resources, people from the higher caste do not use the same resource.

Table 7.2 Practice of Untouchability in different activities in study villages

Determinants of Practice Untouchables		V-1	V-2	V-3	V-4	All
Can you use HC (private) well/pump set/pond for taking water nearby village ?	Yes	8.5	6.0	13.0	15.9	10.6
	No	91.5	94.0	87.0	84.1	89.4
If no how you are isolated by higher caste?	HC deny to take water from their tube well	35.6	48.0	38.9	43.2	41.1
	They wash the whole tube well if we used	40.7	16.0	25.9	27.3	28.0
	If we take water we have to wait for long time (after they are taking)	23.8	36.0	35.2	29.0	30.9
Do you use freely village level common property like ponds, river, grazing land ?	Yes	39.0	56.0	51.9	52.3	49.3
	No	61.0	44.0	48.1	47.7	50.2
If no freely use common property, then how you isolated ?	They refuse/deny to used this	33.3	30.8	38.0	36.4	34.8
	If we used they are not used	60.8	61.5	62.0	63.6	62.0
	If they used we have to wait	5.9	7.7	0.0	0.0	3.3
Do you use common ponds for bathing where HC also bath ?	Yes	28.8	20.0	29.6	29.5	27.1
	No	71.2	80.0	70.4	70.5	72.9
If yes same ponds use, Is it the same ghato where HC also bath ?	Yes	3.5	2.0	0.0	0.0	1.5
	No	96.5	98.0	100.0	100.0	98.5
Do you use same water pot/glass for drinking water at public meeting which is used by the HCs ?	Yes	10.2	14.0	31.5	36.4	22.2
	No	89.8	86.0	68.5	63.6	77.8
If not used the same glass/pot for drinking water why?	Due to we are untouchable or low caste	81.4	88.0	77.8	77.3	81.2
	Not maintaining cleanness	6.8	0.0	0.0	0.0	1.9
	Considering polluting so we used plastic or use & through glass	11.9	12.0	22.3	22.7	17.0
Can you sitting any where together for eat in village function/mohatsava ?	Yes	6.8	2.0	11.1	13.6	8.2
	No	93.2	98.0	88.9	86.4	91.8
If not allowed to sit anywhere, how you sitting	Any where we can sited no caste bar	3.6	12.2	6.3	10.5	7.8
	Make separate sit for SC/ST	96.4	87.8	93.8	89.5	92.1
In public ceremonies, Do all person throw their own eating plate to dustbin.	Yes all are taking their own plate to dustbin	11.9	18.0	27.8	29.5	21.3
	Only SC do that HC not taking the plate	78.0	44.0	57.4	63.6	61.4
	They kept a person who carry the plate (maybe he HCs)	0.0	10.0	3.7	0.0	3.4
	LC caste people doing this for carry the plate to dustbin	10.2	28.0	11.1	6.8	14.0

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

On being asked about the bathing of lower caste people village ponds, more than 72 per cent said that they do not take bath in the same ponds where higher caste people take their bath. In Mukundapur more than 80 per cent of households said they have a similar experience. The higher caste people have banned the use of the pond by Dalits. So they are going for the bath to near the river Baitarani in all the seasons. In the other villages, more than 70 per cent of

respondents said that they are not permitted to use the ponds in the village although these are not personal ponds. Separation of the bathing place like *Ghatas*, is another form of discrimination that was found to be widely prevalent. Among those respondents who had said that they can use the ponds freely, 98.5 per cent said that they used separate *Ghatas*. In the village of Rahania and Chudamani, all respondents who used pond in the village said although they are allowed to use the ponds, the *Ghatas* must be separate from those of the higher caste (see **table 7.2**).

7.3.3 Discrimination in Public Place: Regarding the feeling of discrimination to lower castes by higher caste in the public meetings, which can be held in Gram Panchayat (GP), in school, in village etc., it was reported that the lower castes cannot take water from the same vessel or pot from where the higher castes drink water. Around 78 per cent of households said that they are not allowed to use the same pot in the public place for drinking water. It varies in the village to village. In the villages Kanikapada and Mukundapur in Jajpur more than 85 per cent of lower caste respondents said that they are not permitted to use the same glass or pot for taking the water in public place in the village. In the other two villages of Bhadrak district, Rahania and Chudamani around 68 per cent and 63 per cent of households express the same feeling. On the second query, when the reason behind such practice was asked the respondents could link it to caste and the practice of untouchability (**Table 7.2**). In Mukundapur, more than 88 per cent of lower caste respondents said that they were denied to take drinking water from the common pot in public places like the meeting or polio sabha. Even in the breakfast shop, they are not allowed to use the same glass or pot as other customers.

Around 17 per cent of respondents said that due to idea of purity and pollution associated with untouchability they are put through such discrimination. Only 1.9 per cent of total respondents said that because they are perceived as unclean and unhealthy they are not allowed to use the same pot or glass as the higher castes.

7.3.4 Discrimination in village festival: In the public ceremonies such as *Puja, Mahotsava* (community festivals), lower caste people are not allowed to sit anywhere near the eating the places. More than 92 per cent of households said that they cannot sit anywhere in this festival. Due to the feeling of untouchability, they have to sit separately. More than 98 per cent of Mukundapur village lower caste respondents said that they cannot sit anywhere in the public function in the village. So on the second step, we asked if you are not allowed to sit

anywhere freely where do you sit? More than 92 per cent said that generally there is a separate seat for the lower castes, which is far away from the main areas where higher caste people are seated. In the four villages, only 7.8 per cent of respondents said that no such type of caste bar is found today, and that they can sit anywhere for eating in the public function. Further, more than 61 per cent of households said that only scheduled caste or lower caste people are required to take the plate to the dustbin where higher caste do not do this. On the other hand, 21.3 per cent of respondents said that all (both higher caste and lower caste) take their own plate to throw into the dustbin. More than 14 per cent of respondents said that only lower caste people doing this job for taking the all plate to the dustbin. Only 3.4 per cent of households say in the function people are employed for taking away all the plates after eating by both higher caste and lower caste. The village wise such type of expression we found that in Kanikapada, more than 78 per cent of households say only Dalits or lower caste take their plate to the dustbin, whereas higher caste do not do this. In Mukundapur 44 per cent, in Rahania 57.4 per cent and in Chudamani 63.6 per cent of lower caste respondents said that only scheduled castes are doing this. More than 28 per cent in Mukundapur said that lower caste people doing the job like taking the plate to the dustbin, sweeping, caring woods for cooking in the public function. It is decided by the meeting for distributing the work to the lower castes which ensures no physical contact with food or any festival material. Like, the lower caste people are to be denied by higher caste to participate in the public work, function, although they are contributing the same fees. This happens only due to the caste based idea of purity and pollution. If the committee member distribute work of the function, scheduled caste people are involved only in activities like wood cutting, taking up the plate to the dustbin, sweeping the floor etc (For details see **Table 7.2**).

7.3.5 Banned from Entry to Temple: In coastal Odisha, such as in Kendrapada, Jajpur and some part of Jagatsinghpur districts, scheduled castes are not allowed to enter into the temples. In the study village practice like untouchable much more seen in Mukundapur than the other villages. Out of total 207 respondents belonging to the scheduled caste 32.4 per cent said today caste does not matter for entry into the temple, 46.4 per cents said only in the past few years they were allowed to enter to the temple. Even before ten years Dalits were not allowed to enter the temples. The region has witnessed many agitations against the higher caste on this issue. Only 2.4 per cent said that they cannot enter the temple even today. Other than Dalits most other castes can enter into the temple. More than 18 per cent of respondent says we are gone to outside the village temple where we can enter because in that place our

identity becomes unknown. We can enter and freely worship to Goddess irrespective of any type of discrimination feeling. The village wise analysis from the **Table 7.3**, suggest that except the village Mukundapur, in all other villages more than 37 per cent respondent say that they can enter to temple (no caste bar). In Mukundapur, more than 64 per cent respondent say since few years back they are able to enter into the temple, however, 6 per cent of respondent says they cannot enter to temple even today also. In Kanikapada more than 28 per cent respondent says Dalits villagers go outside the village, to temple in other villages for worship as they are not allowed to go to temples in their villages.

Table 7.3 Practice of Untouchability in Temple entry in study villages.

Practice of discrimination in Temple entry		V-1	V-2	V-3	V-4	All
Are you allowed to enter in temple in your village ?	Yes no caste bar to enter in our village to enter into temple	37.3	14.0	37.0	40.9	32.4
	Last some year we enter to temple	33.9	64.0	44.4	45.5	46.4
	We cannot enter to temple even today		6.0	3.7		2.4
	We go outside the village for worship	28.8	16.0	14.8	13.6	18.8
If you enter Do you allowed to take milk/liquid type product for worship?	Yes we can take all worship items to temple	32.2	12.0	25.9	27.3	24.6
	Only molasses (Gudo) and Milk not take	33.9	44.0	46.3	50.0	43.0
	If we interested we take the help of HC	15.3	30.0	24.1	22.7	22.7
	Not take anything from our home even not take flowers	18.6	14.0	3.7	-	9.7
Are the HCs person eat the worships fruits or Prasad from you?	No Chance to take from us	52.5	66.0	46.3	45.5	52.7
	Yes take before we touch the Prasad or fruits	30.5	12.0	33.3	40.9	29.0
	Cannot say about this	16.9	22.0	20.4	13.6	18.4

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani). Y- Yes, N-No and C- Can't say.

Those are respondent, who said that they are able to enter the temple, were asked about the worship fruit. More than 24 per cent said that they can take everything for worship, however, around 43 per cent respondent says are not permitted to take the items like milk or molasses for worship. If they want to offer these items to the temple deity they give the money to some higher caste persons. Around 22 per cent of respondents said that they have to take the help of higher caste for offering fruits to the Goddess. More than 9.7 per cent lower caste individuals said that they cannot take anything for the worship to temples. In all other three villages more than 45 per cent of the individual respondent reported that they cannot take any liquid items to temple. However, in Kanikapada, this percentage was only 33 per cent.

As reported in **Table 7.3**, it was found that after the worship no higher caste persons accept the *Prasad* from the lower castes. If persons from the lower castes, particularly Dalits,

touch the Prasad it is thought to have got polluted. More than 52 per cent of respondents said that upper caste persons never touch that. Around 30 per cent individuals said that if we do not touch Prasad, they can take otherwise they refuse the Prasad. Thus, so far as temple entry, participation in rituals and offering of food for worship is concerned Dalits continue to face more discrimination than that in other spheres.

7.3.6 Practice of Untouchability: The practice of untouchability in the villages of rural Odisha prevails in different ways. More than 92 per cent of Dalit respondents said that if a Dalit person opens a grocery shop higher castes would not buy from this shop. Only 7.7 per cent said that now a days people buy from lower caste persons' shop. Among those that said so, 72 per cent respondents said that only some specific items are purchased by higher caste persons from the Dalit shop owners. More than 12 per cent individual says only packed items higher caste buy from us. Less than 10 per cent of respondents said that higher caste people do not buy any type of liquid products like oil, molasses etc. More than 90 per cent of respondents expressed the opinion that they cannot enter into the higher caste *varanda* or home. It is found more in the village of Chudamani, Rahanua and Mukundapur. The details of the practice of untouchability in the village has been put in **appendix 7.3**. Even if the lower caste wants to shake hands with the higher caste, they do not like or simply deny. More than 60 per cent say no we are not permitted to shake hands with people from the upper castes. The experience of scavengers, sweepers, and cleaners, barbers etc. are far worse than others among the Dalit community.

7.3.7 Behaviour of higher caste towards the lower caste: In the each and every sphere of activities, it was found that Dalits feel isolated by the higher caste. Even in some development activities, higher caste persons do not inform the lower caste. In **Table 7.4**, around 80 per cent of respondent said that they were not participating in the village level discussions in a meeting. Although more than 40 per cent of the population belong to lower castes, their representation in meeting in villages is less. More than 87 per cent of individual said if their children access higher education, the higher castes behave jealously to them. In Chudamani, more than 54 per cent of respondents told that higher castes create problems to when their children go for higher study. Higher caste people make unkind remarks even when Dalits wear new dresses, or when there are some visible indications of their better economic status. Even if the Dalit children wants to get private tuition from the higher caste teachers, 60 per cent respondent say, higher caste teachers do not teach properly to the Dalit students.

That is the reason that was cited as the cause behind high drop out among Dalit children, particularly after primary education.

Table 7.4 Behaviour of higher caste to lower caste

Behaviour towards higher caste to lower caste		V-1	V-2	V-3	V-4	All
Do the HCs call you in village level meeting development purpose.	Yes	8.5	12.0	27.8	36.4	20.3
	No	91.5	88.0	72.2	63.6	79.7
Do the HCs behave jealously, If your children got higher education.	Yes	79.7	82.0	92.6	100	87.9
	No	20.3	18.0	7.4		12.1
if yes, how?	Badly behave	44.4	62.2	36.5	29.5	43.1
	Comments pass	9.3	22.2	17.3	15.9	15.9
	Inhuman and badly gesture to us	14.8	-	-	-	4.1
	Try to pull down to our children	31.5	15.6	46.2	54.5	36.9
If your child take Tuition do the HC allow to teach your child (Y/N)	Yes	49.2	62.0	24.1	15.9	38.6
	No	50.8	38.0	75.9	84.1	61.4
If yes do they give proper guidance as equally to all (Y/N)	Yes	3.4	20.0	5.6	6.8	8.7
	No	69.5	58.0	44.4	36.4	53.1
	Can't say	27.1	22.0	50.0	56.8	38.2
Are the HC charge more Tuition fee from you than Other (Y/N)	Yes	44.1	34.0	37.0	36.4	38.2
	No	28.8	44.0	13.0	6.8	23.7
	Can't say	27.1	22.0	50.0	56.8	38.2
Do the HCs passes comment, If you wear a good cloths (Y/N)	Yes	88.1	92.0	96.3	100	93.7
	No	11.9	8.0	3.7		6.3
Have you heard any comments related to your social status by HCs like	Yesterday was a beggar today behave like a king	40.4	52.2	65.4	72.7	57.2
	Do not respect if our status change like if my son buy a bike	50.0	28.3	26.9	27.3	33.5
	Not heard any type of comments	9.6	19.6	7.7		9.3
Generally how do the HCs behave with you as you are a Dalits	Roughly	71.2	48.0	72.2	79.5	67.6
	Gently	15.3	28.0	9.3	6.8	15.0
	As like other	13.6	24.0	18.5	13.6	17.4
Why the HCs isolate to lower caste?	Due to unclean and unhealthy	16.9	26.0	11.1	6.8	15.5
	Low literacy	13.6	28.0	24.1	22.7	21.7
	Due to low caste so discriminate	69.5	46.0	64.8	70.5	62.8
Although in a village majority of population are SCs family, Are they still isolated by HCs?	Yes	88.1	92.0	96.3	100	93.7
	No	11.9	8.0	3.7		6.3

Sources: Field Survey, 2016. Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

While it is clear that in the perception of the Dalits, there is high level of discrimination against them, there are indications that the level of discrimination gets reduced to some extent under the impact of education. As shown in **Table 7.5**, responding to the question if discrimination against Dalits in the village will reduce if the Dalit individual is engaged in jobs like teacher, doctor, officer etc., more than 68 per cent of lower caste individuals agreed that caste based discrimination might get reduced if they are in a high-level job. However, around 24 per cent of respondent says whatever be the Dalits person's position, he would be

discriminated in the village by higher caste. That means, according to them, education and economic status has no impact on the discrimination reduction. However, 82 per cent of dalit individuals said that education reduces discrimination.

Table 7.5 Level of discrimination with education

Practice of untouchable with level of education		V-1	V-2	V-3	V-4	All
If a SCs doing high level jobs, Is he also discriminate?	Yes but less than other scheduled caste (lower caste)	61.0	82.0	66.7	65.9	68.6
	No such type discrimination	8.5	6.0	7.4	6.8	7.2
	Whatever the job he must be discriminate due t caste (strongly agree)	30.5	12.0	25.9	27.3	24.2
Are educated person are less discriminate than illiterate of in a lower caste (Y/N/C)	Yes	84.7	66.0	85.2	93.2	82.1
	No	3.4				1.0
	Can't say	11.9	34.0	14.8	6.8	16.9

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

The practice of untouchability varies with the level of education, but there are limits to it. In FGDs, dalit villagers observed that if a lower caste or Dalit touch women from higher castes, she would have to take bath before entering her home. In Kanikapada, some Dalit women are engaged in sale of bangles (ladies cosmetic material like nail polish, necklace), and they carry head load of bangles to sale in different villages. They claimed that they face more discrimination in their own village than in other villages.

The two Dalit women narrated their experience of discrimination during the sale of bangles.

When we go the village to sale bangles, carrying it on the head, higher caste women change their saree due to as we belong to the untouchable caste. After they wear bangles, they change their cloths. When we go to their home to the collection of money they drop the money in our hand avoiding direct physical contact with our hand. Yes, we feel discriminated and humiliated. But the degree of discrimination is slowly getting reduced as compared to the previous years. Some educated higher caste females from the upper castes do not treat us like this. They behave with us as they do with other family members of their home. They do not change the saree after purchasing bangles from us.

-Kanikapada, Dalit women(age 40 and 45)

Women from the higher castes keep a safe distance from the lower caste females, even while crossing the road. Even in the meetings of Polio Sabha or self-help group (SHGs) higher caste women keep a separate mat for the lower castes. The level of discrimination faced by Dalit women from the women of the higher castes, they felt is more than that is experienced by the Dalit men.

In our village women go for bath to the nearby Baitarani river. This incident happened at the time of the Odia month of Margasira, on a Thursday. A higher caste women was also taking bath in the river. Unaware of her presence, I splashed some waters which dropped on the women's cloth. She quarrelled with me and finally, panchayat head to resolve the issue. She told me that 'we are higher caste women. How can you (a pana) touch

me, you have no right to bath in this place of the river. Only we (higher caste people) can bath in the ghat from where the river flows downward.' I cannot forget this incident in my whole life. Caste based discrimination is much more seen among the females than among the males in our village. Not one of higher caste women, not even school girls ever come to our locality.

-Mukundapur, Pana (Dalit) Woman, (age 40)

Lower caste people are unemployed most of the time due to lack of opportunities and also because of the some restriction of occupation. They cannot work in the hotels in nearby the villages. Around 83 per cent of respondents said Dalits are not able to work in the nearby hotels where their identity can be known. If they work, they are engaged in the washing of the plates and sweeping the floor. More than 42 per cent of respondents reported that Dalits are engaged in activities like washing the plate or taking the plate from table for the wash. However, 40 per cent of Dalits said that there was no caste bar and that they can do anything in the hotel. Around 17 per cent of respondent say we cannot work like which is directly touch with food (see **appendix 7.4**).

I lost my occupation as a vegetable vendor in the *Hata Padia* (marketplace of the village) because of my caste. I opened a vegetable shop in the year of 2007, I maintained my family by selling the vegetables in the village. But since I belong to pana caste, no higher caste persons purchased vegetable from me. Only people from our caste were buying the vegetable from me. Up to 2012, I continued the shop but after that, I could not support my family from the income. So I sold the cabin to a higher caste person (belonging to the OBCs). His business is running well and he is able to support his family from the same shop. This is because he belongs to a higher caste. All the higher caste people buy vegetables from this shop. So the caste also determines what will be your occupation or activities in the village. Due to caste bar, no one of our caste can open a *pan* shop also.

Mukundapur, Pana (Dalit) Man (age 42)

In the public places like school, lower caste women are not employed to cook the mid-day meal programme (MDMP). Around 90 per cent of SC respondents said that lower caste women would never be employed to cook in the school. If the lower caste women cook the MDMP food, higher caste children would not eat the food in the school. In case some of the scheduled caste women got the job in the school for cooking, but she is actually doing the work like supplies of woods to main cooks (who belong to higher caste) or washing the pots, or sweeping the floor etc. Even she is not allow to carry the water for cooking or cut the vegetable for curry. More than 40 per cent of respondent says lower caste women are not even allowed to cut the vegetable in the school (see **appendix 7.5**).

Scheduled castes are discriminated more because of untouchability than the Muslim or other minority communities. Around 37 per cent of Dalit respondents said minority are discriminated less than scheduled caste. Caste based discrimination exist more in across the social groups as well as within the social groups in the village of rural Odisha. Because

around 50.2 per cent of respondent say caste based discrimination more in both across and within the social groups in the study villages (see **appendix 7.5**). In all the villages about half of the respondents said that discrimination exists among the social groups and half of them are said caste discrimination exists both across and within the social groups. In Mukundapur, within the social groups (like within the SCs) caste based discrimination also exists.

7.3.8 Discrimination operation in the village: The analysis in this chapter is about the perception of the SCs and 82.6 per cent of respondents said that they faced discrimination in the village. It is more acute in the Mukundapur, and comparatively less in Kanikapada. In each of the villages more than 85 per cent of respondent said that they are discriminated against due to their caste. It is part of their day to day experience. While standing in queue for the ration, for example, they have to wait for more time than the higher caste persons. More than 50 per cent respondent say when we cross the road or in a shop higher caste stand far away from us or go far away from us. This is the reason many Dalit men feel that they should find work outside the village. So they prefer to go for the work outside the village or away from the village. They express that outside the village such type caste discrimination is not seen, not because discrimination is absent there, but because their identity is not known. The caste based disparity exist not only across the social group but also within the social groups. Because within the scheduled castes some sub-castes are claiming that we are the top in our caste other than other sub-caste of scheduled caste. Around 60 per cent of the respondent in total sample said that caste discrimination across the social groups, and it is the same for in the village like Rahania and Chudamani. In the other two villages of Jajpur district, village Kanikapada and Mukundapur, more than 50 per cent and 78 per cent respondents say caste discrimination more across the social group respectively.

Many respondents said that if the government frames and implements stricter rule and regulation the segregation and discrimination would stop. More than 42 per cent of respondent says that caste discrimination can be reduced by the government. The second highest percentage of respondents reported that if they would be able to worship in the temple it will be reduced. Thirdly, education has a significant role in the reduction of discrimination among the lower caste in the villages. In the village of Chudamani 36 per cent respondent told it is happening due to the neglect of government rule and regulation. In this village people also give views in favour of worship in the temple which can reduce the discrimination. If the lower caste people stay clean and healthy environment it can be reduced. Around 10 per cent of that village individual says if we do not depend on higher

caste or if our economic status change it discriminations would be reduced. In the village of Rahania, high share of people expressed their opinion in favour of stricter regulation and government intervention, secondly more focus on temple entry by lower caste for worship and thirdly each of equally respondent like education and cleanness.

Table 7.6 Discrimination in villages

Example of Discrimination in practice		V-1	V-2	V-3	V-4	All
Have you felt discriminate in your village?	Yes	74.1	88.1	84.0	86.4	82.6
	No	13.0	2.4	12.0	13.6	10.5
	Can't say	13.0	9.5	4.0		6.8
If yes give some example.	No one HCs female never come to our village or to sahi/locality	9.4	16.0	7.4		8.5
	If we passes in road they pass far away to us	49.1	48.0	51.9	59.1	51.7
	If we stand they are stand distance to us	34.0	28.0	18.5	13.6	23.9
	HCs boy (younger than we) called our name or father name	1.9	4.0			1.5
	If we invited to eat in function at HCs home they make separate seat for us	1.9				0.5
	Sometime we seated in one place but they told to leave the place due to we are LCs	3.8	4.0	22.2	27.3	13.9
Which type of discriminate you felt more	Within the social groups (among the sub caste but within SC)	45.8	18.0	37.0	40.9	35.7
	Across the social groups more	49.2	78.0	63.0	59.1	61.8
	Equally both in more	5.1	4.0			2.4
How do you think untouchability could be reduced (code)	Literate	8.5	10.0	11.1	13.6	10.6
	Cleanness or good environment if we stay	5.1	2.0	11.1	13.6	7.7
	Govt strict rule and regulation	37.3	54.0	42.6	36.4	42.5
	If our status change (like if we are not depend on them as like labour)	5.1	6.0	5.6	9.1	6.3
	If we are leave our hereditary business (like JatiBeusa)	8.5	12.0	3.7		6.3
	If we take step together jointly and organise to stop such type of discrimination	3.4	2.0			1.5
	If we go the temple and worship then it reduce	15.3	6.0	22.2	27.3	17.4
	If economic or financial condition change discrimination will be reduce	16.9	8.0	3.7		7.7

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

In the village of Mukundapur, more than 54 per cent say strict rule and regulation are needed for the elimination of discrimination in the village. Otherwise if the education level increase it will be reduced and if the lower caste shifts out of the hereditary occupation discrimination might get reduced. In the Kanikapada village around 37 per cent of respondent say strict rule and regulations are essential for reduction of such segregation in the modern society. Economic betterment could also help in reducing discrimination. So people belonging to the SCs, know that they are discriminated against by the higher castes, but they have no option

other than to work in the homes of the higher caste villagers. So economic condition is directly linked with the discrimination in the rural village of Odisha. The role of education, though positive, varies across villages.

7.4 Conclusion:

The overall analysis of this chapter suggest that caste based discrimination is acutely felt by the Dalit respondents in the various activities and various spheres of life and livelihoods in rural Odisha. The perception of discrimination among the Scheduled Castes reveals that caste is an important indicator for almost all important activities. More or less discrimination is found to be present in all the villages. Among the four villages, in Mukundapur of Jajpur district, Dalits or lower caste (specially *pana* sub-caste) face much discrimination than the other villages of study. We found that in the village scheduled caste people are much dependent up on the higher caste sand they have no right to access any activities freely.

Lower caste individuals suffer many problems in the village related to caste. It may directly or indirectly affect the dignity of the Dalits in the village. In rural Odisha, especially in the coastal belt discrimination against the SCs has not changed significantly over time, although signs of improvements could be found in the analysis of perceptions of the Dalits presented in the chapter. It still operates in the villages where lower caste stays under of economic and social dominance of the higher castes. Caste status of Dalits puts restrictions on their economic mobility. In certain kinds of self-employment and wage employment related to water and food the practice of untouchability comes out starkly from the analysis of the perceptions of the people. In the public places likes schools, panchayat, public meetings etc. higher caste dominance work more than the lower caste representation. Thus, as per the experience of the Dalits, their caste status affect their citizenship status. The operation of government programmes are far from being caste neutral. Perceptions of the marginalised and oppressed sections are an important component of discrimination. The ability to resist or change the pattern of discrimination results from the way it is perceived by the marginalised groups. From that perspective, the analysis of perception of the Dalits, presented here, point to the conditions under which discrimination in labour and other markets get perpetuated.

CONCLUSION AND POLICY IMPLICATIONS

Despite decades of affirmative action by the government at various level, caste-based discrimination continues to be prevalent in India. This study explores the extent, nature and forms of discrimination in the rural labour markets in Odisha. The major conclusions and findings of the study have been put together in this chapter. The chapter also presents a few policy suggestions and recommendations to reduce the inequality and discrimination in the rural labour market. Although caste-based discrimination is found to be present in various markets, it is in the labour market where its presence is found to be most severe. Further, its regional and location character might differ across the country.

Caste system is a hierarchical ordering of the society, which creates a system of ‘graded inequality’ on the basis of birth. Related to the religious and ritualistic notion of purity and pollution, it assigns particular work or occupations to people on the basis of their birth and accordingly assigns them a position to them in the hierarchical order. As Ambedkar pointed out caste system is ‘not merely division of labour, but also a division of labourers’. By this scheme of social stratification some sections of people are pushed down to the bottom, and they are excluded from resources, positions of power and rights. Untouchability is an extreme form of this stigmatisation and exclusion that is the cornerstone of the caste system. The various studies on the rural markets of India describe that caste based discrimination has not been eradicated completely from the society. In India inter-personal inequality has increased in the recent decades and caste-based discrimination increases it further. However, some scholars have argued that caste system has significantly declined as a result of modernisation of the economy, but on the other hand many recent studies have shown its persistence in rural India.

The present study attempted to examine the role of caste in the rural labour market in Odisha. Most of the lower castes and Dalits are landless and hence depend on the labour market for their survival. So the study focuses more on the rural labour markets discrimination especially in agriculture labour markets. However, transactions in rural markets are often interlinked. The poor tend to diversify their livelihoods to minimise risks. In such cases caste-based discrimination in the labour markets may not provide a comprehensive understanding of discrimination. Thus, this study locates discrimination in a wider context and investigates other aspects of livelihoods and survival of the people in rural Odisha.

The characteristics of Odisha labour markets are governed by the fact that state's economy is a predominantly agrarian economy, where more than 65 per cent of the population depends on agriculture, although the share of agriculture in the GSDP has come down to 28 per cent. Given the low productivity in agriculture and limited irrigation facility, most of the workers are not work in able to find work throughout the year in agriculture. It is hardly surprising that most of the poor in Odisha are landless labourer or marginal farmers. There are significant regional disparities within Odisha. The region wise progress of the state is not uniform, because of the agrarian structure of coastal region is different than that in the southern and northern regions. Although the coastal belt is comparatively more developed than the other regions, but there are important disparities within the region as well.

There are a great deal of overlap between social and spatial backwardness. The regions which are backward in terms of economic development indicators are also populated by the Scheduled Castes and Scheduled Tribes. Scheduled Tribes have a larger presence in the interior northern and southern regions of Odisha, whereas Scheduled Castes are more concentrated in the coastal districts. An analysis of the Work Participation Rate (WPR) of the different social groups of the state suggest that WPR of scheduled castes is much higher than the other social groups of the state, which is to be expected given their lower levels of human capital and asset ownership. The WPR in 2011, marginally increased from 40.23 per cent in 2001 to 43.19 per cent for all the castes, and it also increased for each of the social groups in comparison to the 2001 census. Similar trends were seen both in the rural and urban areas of the state. The proportion of main and marginal workers of the state (in 2011 census) shows that the share of marginal workers has increased as compared to the previous census. The share of marginal worker out of total workers increases from 32.83 per cent to 38.96 per cent during 2001-11, indicating possible distress among the rural workers. The share of main workers among the scheduled castes was 87.85 per cent in 1991 but the share fall to 62.44 per cent in 2001 and again decreased to 56.42 per cent out of total workers. On the other hand, the share of scheduled caste marginal workers increased from 12.15 per cent to 43.58 per cent in 2011 census. A similar trend is observed among the Scheduled Tribes as well.

The agrarian structure of Odisha economy suggests that agriculture is the most important source of livelihoods in rural areas. Also, it is largely small-holder agriculture. In Odisha, more than half of the farmers are small and marginal farmers. Some of the mare leasing-in some land from the landlords for cultivation and for rest of the time, they work as daily wage labourer. The share of agriculture labourers among total rural worker has

increased over the last four decades. On the other hand there has been a decline in the share of cultivators. More than 60 per cent of workers were cultivator and agricultural labour of the states in 2011, an increase from 40 per cent in 2001. Among the social groups, the share of cultivators was less than that of agriculture labour among the scheduled castes, because of their poor asset-ownership status, which can be explained by the historical legacy of discrimination. Among scheduled tribes and others, the share of cultivators was more than that of the agriculture labour. This clearly indicates the greater dependence of the Scheduled Caste on the labour market. Odisha's agrarian structure is dominated by the small and marginal holders; more than 90 per cent of households owned less than one acre of land. Within that Scheduled Castes own and operate much lesser share of agricultural land than their share in population. This, further contributes to their greater economic vulnerability. The average area of land ownership in rural Odisha is 1.76 acre, and among the social groups scheduled caste average land owned around one acre as compared to other backward castes 1.93 acre and others 1.76 acres. So the land concentrated in the hand of the higher caste than the lower caste in the state (NSSO, 2011-12).

To explore the various dimensions of caste-based discrimination, a primary survey was conducted in selected villages of two districts of coastal Odisha. The primary survey covered more than 400 households and, among them, more than 600 workers. The primary survey was conducted in two villages (Kanikapada and Mukundapur) from Jajpur district and two villages (Rahania and Chudamani) from Bhadrak district. In overall villages average household size more than five but the average workers of the villages is less than two people. That shows the high dependency ratio. It was found that in each of the study villages, a larger share of scheduled caste and scheduled tribes work as an casual labour. Among the SC social group, 62 per cent are engaged in non-agriculture and rest on agriculture out of 154 scheduled caste households, as per the principal occupation of the head of the household. Among the Scheduled Tribe households, 62 per cent household head's main occupation was in non-agriculture. Among the OBCs and OTH households around 80 per cent of the total household are engaged in non-agriculture and less than 20 per cent are in agriculture. This shows the limited diversification opportunities of the marginalised sections.

Using both secondary and primary data, the study found significant wage discrimination in the labour market in Odisha. Firstly, the Scheduled Castes, in particular have restricted occupational choice because of caste-based exclusion, and secondly, when they manage to enter the labour market they face different kinds of discriminations, including

wage discrimination. Thus, this is a combination of social exclusion and adverse inclusion. The caste-based discrimination in labour markets, especially in the agriculture labour market, has been investigated through the Duncan Index or Dissimilarity Index. It shows that due to occupational segregation scheduled caste and scheduled tribe lag behind in the economic sphere on the ground of incomes. The index describes that more than 27 per cent need to interchange from one occupation to other occupation by the lower caste to bring the equality of occupation among the two pairs. Although in the villages occupational segregation is not recognised, but the analysis shows that lower caste are limited to work as casual labour rather than any other occupations like the business, industry or service etc.

A possible way out for many of the workers from the marginalised social groups was to migrate or to commute to the nearby urban areas. It was revealed that scheduled caste and scheduled tribe workers have started to migrate to other states for the work in the brick industry, construction, hotel and cottage industries. In the study villages, we found more seasonal migration than permanent migration for a longer duration. The seasonal migrant labour typically work in the village during the peak agricultural season and rest of the time move to another part of the state or outside. In Kanikapada, some workers commute to the Jajpur town for the work in sanitation, construction work and other types of work in non-agriculture.

Within agriculture, Scheduled Castes and Tribes population have a significantly lower access to land. In terms of the average land ownership, in Jajpur scheduled castes owned 0.59 acre per households as compared to the other backward caste (2.0 acre) and others (2.01 acre). In Bhadrak, land ownership was 0.87 acres for scheduled caste and OBCs and Others respectively owned 1.8 acres and 2.05 acres per households. Due to this unequal distribution of land owned by the SCs and STs, the state government step took various steps for equal distribution of land among the social groups. In the study village, among the total landless households (167 HHs) more than 40 per cent belong to scheduled caste. The Gini coefficient of land distribution in the study villages further demonstrates the inequality in land distribution.

Alternative sources of access to land through the land-lease market was also found to be biased against the Scheduled Castes. We find that a higher proportion of leased-in land is cultivated by mixed tenants (part-owner and part-tenants). Around 52.79 per cent of land was cultivated by mixed tenants and 33.03 per cent by pure tenants. More than 32 per cent of tenants

households were pure tenants. In the social group's wise tenancy status, under the mix tenancy more than half of the total operational land is cultivated by 41.88 per cent of the scheduled caste households; 37.61 per cent of scheduled caste cultivate land under pure tenants and only 9.73 per cent of operated land cultivate under owner tenants. It is found that due to poor land ownership among the SCs and greater dependency burden, they are leasing-in land from the higher caste landlords for cultivation. On an average, pure tenants are cultivated the same land from the landowner for more than five years,. All the leasing-in land is cultivated under the sharecropping tenancy in all the villages except Mukundapur, where some farmers have leased-in under fixed money tenancy.

An attempt was made to find out the share of wage-income from agriculture and non-agriculture. It was estimated to be 53.95 and 46.05 per cent from farm and nonfarm income respectively. In Kanikapada and Chudamani agriculture labour households earn around 60 per cent of income from farming and in Mukundapur and Rahania farm and nonfarm income is 50.29 per cent and 49.37 per cent respectively for the casual agriculture labour. Among the casual non agriculture labour, average income from non-agriculture labour work is highest among the other backward castes.

Apart from the land market, the social group wise differences in access to credit was also studied. The dependence on informal credit is more among the Scheduled Castes and Scheduled Tribes. The landless and marginal farmers are more dependent on money lenders and shopkeepers than other informal sources. The average loan borrowed by the indebted households from the formal sources was Rs. 14,958 and for informal sources was Rs. 35,104. OBCs as a group borrow more from the from informal sources like the money lender, input traders, chit fund, landlord, relatives etc. than compared to other social groups. All informal loan suppliers charge high rate of interest from the poor farmers. Caste wise discrimination was also noticed in the credit markets in the study villages. The annual rate of interest charges to scheduled caste households was found to be much higher than the charges to other castes.

The determinants of access to formal credit by the households was examined by the binary logistic regression technique, it measures the probability or chance of a household's access or receives the loan from formal sources. Only 45.58 per cent out of total sample households in the villages access formal sources of credit. If the households belongs to landless, or marginal or small farmer category or to the SC and ST social group, there is the

lesser chance of taking the loan Farm income of the households was found to have a significant relationship with the access of formal loan in the rural villages of Odisha.

The inter-group disparities in asset-holdings came out sharply in the analysis of the primary data. The Gini coefficient of the assets holding among the villages shows that inequality is comparatively more in Kanikapada. The within-group inequality in assets holding of the study village explain that in the other backward caste inequality is very low as compared to the scheduled tribe and higher caste. The within-group inequality among the scheduled caste households is also less than that among the scheduled tribes.

As per as the secondary data from NSS, the average nominal wages of casual agricultural and non-agricultural labour was Rs.105 and Rs118 respectively. Among the social groups, average nominal wages of casual labour is Rs. 118 per days which is higher than the casual agriculture labour in 2011-12 in Odisha. However, caste wise wage gap existed in both casual labours as well as casual labour in agriculture. The workers belong to OBCs labourers get marginally lower wages than the scheduled castes in rural Odisha. Among the social groups, others caste's (that is mostly higher caste) average per day wages is much higher than that of the other three social groups. The region-wise analysis of rural Odisha average wage rate for the casual labour and casual labour in agriculture, shows that in the coastal belt average wage rate was much more than the other two regions. The wage-gap among the social groups was much more in coastal than in the other regions. The average wage rate of scheduled caste casual agriculture labour in coastal belt was Rs. 135, which was much higher than that in the northern (only Rs. 77) and southern region (Rs. 98).

A detailed analysis of the wage discrimination across groups in rural Odisha was carried out using both secondary and primary data. The difference or gap of wages emerges from two sets of reasons i.e., due to endowment factor that means human capital like education, skill, work experience and knowledge etc and another is an unexplained factor also called social factor such as caste-based discrimination, Wages could be different due to gender, like male are getting more wages than female for the same work, which is attached with the community or region. The unexplained factor like caste or gender causes wage differences and creates the inequality of wages among the different caste or groups for the same work..

The study analysis focus on rural Odisha of the labour market. It is categories two type of workers like casual labour (all type of casual or daily wage labour) and casual

agricultural labour. The discrimination components were compared among the four pair of subcategories of social groups, viz (i) among the scheduled caste and others (SC-OTH), (ii) scheduled tribe and other (ST-OTH), (iii) scheduled caste and higher caste (SC-HC), and finally (iv) the comparison of lower caste and higher caste (LC-HC). The gap between mean wages is much more among the scheduled tribes (STs) and other castes (OTH) which is around Rs. 28 rupees. Over the study of all the pairs of average mean, wages differ due to caste matter much more than the endowment factor like education, skill or land ownership. Among the SC-OTH pairs, 19.13 per cent of wages of casual labour is determined by the endowment factor which also called as the explained factor. So the rest of the around 80 per cent wage different arises due to caste based discrimination. So, for the casual labour working on daily wages basis, scheduled caste get fewer wages due to his caste.

Around 22 per cent of the wage gap could be attributed to education, skill, household size, etc, and rest of the 78 per cent describe that it is discrimination. So here around 78 per cent face discrimination that arises from the wages difference among the ST-OTH. In the third pairs SC-HC, although the difference in average wages is less but here endowment factor values is -33.48, which indicates that just the reverse result of previous explanation. This indicates that although marginally wages of higher caste casual labour is more than scheduled caste around 67 per cent causes of different wages is explained by endowment factor. In the final pairs (LC-HC) of wage discrimination between the lower caste and higher caste, it is seen that only 1.06 per cent explained the endowment factor for the wage.

The average agriculture nominal wages in rural Odisha increases from Rs. 36 to Rs. 105 from 2004-05 to 2011-12 time period but the wage gap among the social groups is enlarging over the period. The average wage difference among the social groups reflects that other castes (OTH) got more wages from the agriculture work in rural Odisha than the other social groups. That means OTH got per days wages of Rs. 118.09, as compared to scheduled caste Rs. 110.64, scheduled tribe Rs. 87.07. In the comparison of the higher caste (jointly taking both other backward castes and others) and lower caste (jointly scheduled tribe and scheduled caste) agriculture labour wages respectively were Rs. 115.12 and Rs. 97.81. The causes of mean wage difference measured by decomposition methods, which indicate explain that in rural Odisha agriculture labour in the pair of SC-OTH, around 46 per cent wage difference explained by due to endowment and rest for the caste matter for the wage determination components. In the pairs of ST-OTH, caste-based discrimination explains around 91.52 per cent what is the wages of the scheduled tribe and other. So here caste is a

significant factor in the casual work in agriculture. The study also finds out the region wise as well as gender wise caste discrimination in rural labour markets in Odisha.

In overall terms, the level of wage inequality among the social groups is caused due to discrimination components more than the endowment component. The average nominal wages among the social groups in rural casual labour is less in scheduled caste and scheduled tribe than the higher castes. The average wage gap due to caste is explained by more than 90 per cent. The decomposition result shows that the average wage difference among SC-OTH is explained by 80 per cent as being caste matter and rest 20 per cent for the endowment. So it is proved that caste-based discrimination in rural labour markets both in agriculture as well as in non-agriculture exists.

As per the primary survey of the four villages of two coastal districts in rural Odisha the mean wages of agricultural labour in villages is much less than the nation agriculture wages. It is found that the mean difference arises in the agriculture labour markets in villages due to caste-based discrimination rather than the endowment factor. Average wage rate of agriculture work in the study villages (taking all villages together), was found to be Rs. 242 for the SCs as compared to Rs. 225 for the STs, Rs. 270 for the other backward castes and Rs. 268 for others. The average wage rate for casual agriculture labour was higher in outside the village (like in nearby villages for commuting labour) than the wage rate within the village. The knowledge of the identity of the labour and long-term dependence of the labour on employer could be the factors influencing the wage gap between labourers who worked within and those who worked outside the village.

Caste based wage discrimination was also examined using the data generated through the primary survey. In the village Kanikapada, average wage rate of scheduled caste and scheduled tribes in casual non-agriculture labour was around Rs. 261, whereas for the other backward caste and others it was Rs. 332 and Rs. 353 respectively. The average wages of scheduled caste was much lower than the other social groups in the village Mukundapur. In the third village Rahania, average wages of casual non agriculture labour from the social groups was as follows: SCs 261, STs Rs. 233, OBCs Rs. 367 and OTH Rs. 279 respectively. In this village wage rate of the scheduled tribe labour was the lowest as compared to other three castes in the village. In the last village Chudamani, however, the average wage rate for the higher caste called OTH is less than the other backward caste and it is even less than the scheduled caste labour.

The measure of discrimination against caste about the labour markets wages in both agriculture as well as in non-agriculture much more among the scheduled caste and other castes. The relative contribution to the mean wage difference between the pairs of social groups suggest that caste is an important determinant factor affecting wages. The analysis of wage discrimination in the casual labour market in agriculture, then casual non-agricultural labour market and finally taking all casual labour confirms the presence of caste-based discrimination. The extent of discrimination measured by the Blinder and Oaxaca decomposition technique on the endowment (or explained effect) and treatment difference (or unexplained factor) confirms the existence of caste-based discrimination in rural Odisha. In the first pair scheduled caste and other backward castes (SC-OBC), decomposition results suggest that 97.72 per cent of the wage gap is explained due to caste. Among the SC-OBC pair wage difference the discrimination component explains more than the endowment component. In the pair of SC-HC, more than 99 per cent of wage difference arises due to caste discrimination. It is found that among the four pairs LC-HC, mean wage difference that arises due to caste discrimination is less than the other pairs considered in the study. This could be because we have clubbed OBC and 'others' as a single group 'HC'.

In the casual labour market in non-agriculture, the mean wage rate for scheduled caste was found to be Rs. 256.03 as compared to Rs. 327.25 for other backward castes (OBC). The average wages of lower caste (SC/ST) for non-farm work Rs. 255.68 and higher caste (OBC/OTH) it is Rs. 314.45. So observing the average wage difference between the pairs of social groups describe that caste or groups based wage gap much more among the lower caste and higher caste. The discrimination component explains 93.20 per cent of the total wage difference between scheduled castes and other backward castes. In the pairs of SC-HC, although 90 per cent of the wage difference is due to caste based discrimination, the share of the endowment factor is relatively more than that in the other pairs of wage discrimination analysis.

Thus, in the rural Odisha, wage difference in the casual non-agriculture labour market among lower castes and higher castes or each of the subcategories of social group arises more due to caste discrimination than the explained factor. Thus, it is not the unequal access to education, skills and other enabling factors that explains the inter-group differences in wages, rather it is caste discrimination that explains a major part of the wage difference in the rural labour market. So the given result from the labour market discrimination concludes that wages difference arises not due to the endowment or different of economic factor rather it is

determined by the social factor like caste based discrimination. It is, however, important to note that the segment of the labour market that is considered in this study is casual work in agriculture and non-agriculture, where skill intensity of the work is rather low.

Since caste-based discrimination cannot be limited to wage-based discrimination alone, an attempt was made to assess the perceptions regarding discrimination among the marginalised groups. An examination of the perceptions and understanding of the SCs regarding discrimination shows that untouchability continues to remain an important aspect of the discrimination that Scheduled Castes face in rural Odisha. Secondly, it is clear from our analysis that there is a clear perception among the SCs regarding the presence of discrimination in their society. If they continue to tolerate such treatment, it is not because they cannot perceive it as discrimination; rather it is their social, political and individual vulnerabilities that force them to adjust with the conditions of their existence. There are some indications that the rigid caste system is getting weakened and the scope for the lower caste groups to escape the constraints imposed by the caste discrimination in the rural areas. However, our perception analysis shows that caste discrimination can persist even under conditions of economic betterment of the marginalised groups.

Social awareness is expected to reduce the difference among the social groups in all aspects like wages, assets, income and occupation. That is interlinked with the labour markets. The study suggests that in the rural labour markets, caste-based discrimination prevails in both agriculture as well as in the non-agriculture. The causes of discrimination are not much explained by the endowment factor rather caste discrimination bear the vital portion of the difference in the wage gap. So the wage different in rural Odisha cannot be eliminated simply by the raising of endowment factor so far rather than eliminating the caste-based feeling in the mind of the higher castes. So that gap among the social groups can be narrowed down through the awareness among the higher caste and through the progress of the economic condition. Political mobilisation, social awareness and collective bargaining are some of the ways through which the social discrimination could be minimised. The government should take a pro-active stand in preventing discriminatory practices against the lower castes. In the absence of that caste-based exploitation or discrimination by higher caste in the village might continue to be a pervasive feature of the rural economy in India.

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Appendix:

Appendix 1.1: Top and Medium Number of Agricultural labour and Scheduled Caste Population of Jajpur and Bhadrak Districts (in number of persons)

High Number of AL and SCs population villages of JAJPUR				High Number of AL and SCs population villages of BHADRAK			
High Agriculture Labour (AL)		High Agriculture Labour (AL)		High Scheduled Caste Population (SCs)		High Agriculture Labour (AL)	
Village Name	AL (in person)	Village Name	SCs (in person)	Village Name	AL (in person)	Village Name	SCs (in person)
Charinagal	823	Jari	3427	Balarampur	563	Adhuan	4545
Samian	657	Bari	2317	Gujidarada	533	Chudamani	3641
Tomka Forest Block	613	Kanikapada	1843	Nadigan	477	Kanpada	3479
Palei	531	Khan Nagar	1760	Olang	476	Padhuan	3414
Nalipur	499	Rampa	1737	Chudamani	475	Nuagan	3214
Guhali	486	Kuanla	1713	Mahantipada	431	Bideipur	2314
Fatepur	477	Dasrathpur	1687	Sayadjafar	415	Baligan	2189
Kanikapada	463	Jafarpur	1660	Padhuan	412	Bilana	1982
Medium Number of AL and SCs population villages				Medium Number of AL and SCs population villages			
Village Name	AL (in person)	Village Name	SCs (in person)	Village Name	AL (in person)	Village Name	SCs (in person)
Hatibari	270	Similita	617	Nandore	188	Nandore	654
Mahakhala	282	Jhadgan	638	Kanti	189	Talagobbindha	659
Chasakhanda	283	Tarakote	675	Upardumuka	190	Apanda	672
Bangara	286	Mukundapur	731	Arjampur	191	Kismatkrushnapur	772
Mukundapur	290	Bachhola	740	Kotsira	192	Koliaria	780
Chandital	290	Chandital	843	Kesarpur	193	Naikaniidhi	784
Similita	290	Barundai	855	Jayadurgapatana	193	Gelpur	785
				Rahanian	195	Rahanian	887

Sources: Population Census Abstract (PCA), 2011

Appendix 1.2: Household types Kanikapada village of Jajpur Districts

Sil no of HHs	Name of HHs	Caste/Groups of HHs	Household Type*					
			Self-employed		Casual Labour		Business	Service / Salaries holders
			Self-Employed in Agri	Self-Employed in Non-Agri	Casual Agri Labour	Casual Non-Agri Labour		
1	Rama	SC	√	x	x	x	x	x
2	Hari	SC	x	√	x	x	x	x
3	Gopal	GEN	√	x	x	x	x	x
4	Madhu	SC	x	x	√	x	x	x
5	Rabi	SC	x	x	√	x	x	x
6	Kisku	ST	x	x	x	√	x	x

Sources: Field Survey, 2016. *Note: The Household type as per as NSSO categorisation of household.

Appendix 1.3: Kanikapada (three wards total number of HHs i.e., 2+4+7) and Mukundapur village (three wards total number of HHs i.e., 3+4+5+6+7+8) households main occupation.

Social Groups	CAL	CNAL	SEA	SENA	B	S	TOTAL
SCs	76	41	2	0	2	9	130
STs	20	8	0	0	0	4	32
OBCs	6	35	8	0	7	17	73
OTH	0	5	11	0	0	15	31
TOTAL	102	89	21	0	9	45	266
Proportion of Household select like as (From Kanikapada)							
Percentage of SCs population = $130/266*100 = 48.87$ but actually surveys 30 hhs							30
STs population = $32/266*100 = 12.03$, but actually surveys 29 hhs							29
OBCs population = $73/266*100 = 27.4$ but actually surveys 29 hhs							29
General population = $31/266*100 = 11.65$ so around 12 hhs							12
So I select total number of household survey in the village							100
Social Groups	CAL	CNAL	SEA	SENA	B	S	TOTAL
SCs	52	55	5	0	4	6	122
STs	16	29	1	-	-	2	48
OBCs	23	53	20	1	32	22	151
OTH	2	7	20	0	8	13	50
TOTAL	93	144	46	1	44	43	371
Proportion of Household select like as (From Mukundapur)							
Percentage of SCs population = $122/371*100 = 32.88$ so around 33 hhs							33
STs population = $48/371*100 = 12.93$ so around 13 hhs but actually survey							17
OBCs population = $151/371*100 = 40.70$ so around 41 hhs but actually survey							38
General population = $50/371*100 = 13.47$ so around 13 hhs but actually survey							16
So I select total number of household survey in the village							104

Sources: Field Survey from Kanikapada and Mukundapur village, Jajpur Districts, 2016

Appendix 1.4: Rahania three wards total number of HHs i.e., 7+8+9+10) and Chudamani (three wards total number of HHs i.e., 4+7+8+13) households main occupation.

Social Groups	CAL	CNAL	SEA	SENA	B	S	TOTAL
SCs	77	57	7	0	15	33	189
STs	7	1	0	0	0	8	8
OBCs	34	26	28	0	7	57	152
OTH	14	8	8	0	1	18	49
TOTAL	132	92	43	0	23	108	398
Proportion of Household select like as (From Rahania)							
Percentage of SCs population = $189/398 \times 100 = 47.48$ but actually take 46 hhs							46
STs population = $8/398 \times 100 = 2.01$ so around 2 hhs but actually survey 8							08
OBCs population = $152/398 \times 100 = 38.19$ around 38 hhs but actually survey 36							36
General population = $49/398 \times 100 = 12.31$ around 12 hhs, actually survey 12							12
So I select total number of household survey in the village							102
Social Groups	CAL	CNAL	SEA	SENA	B	S	TOTAL
SCs	21	26	0	0	1	0	48
STs	0	0	0	0	0	0	0
OBCs	77	14	5	0	4	2	102
OTH	26	19	25	0	13	14	97
TOTAL	124	59	30	0	18	16	247
Proportion of Household select like as (From Chudamani)							
Percentage of SCs population = $48/247 \times 100 = 19.43$ hhs but actually survey 45							45
STs population = NA							0
OBCs population = $102/247 \times 100 = 41.29$ around 41 hhs but actually survey 40							40
General population = $97/247 \times 100 = 39.27$ around 39 hhs but actually survey 17							17
So I select total number of household survey in the village							102

Sources: Field Survey from Rahania and Chudamani village of Bhadrak Districts, 2016

Appendix 2.1: Economic Classification of Workers from Population in 2011 of Odisha (in%)

R/U/T	Total workers			Total Non-workers			Main workers			Marginal workers		
	P	M	F	P	M	F	P	M	F	P	M	F
Rural	43.19	56.53	29.69	56.81	43.47	70.31	57.1	70.9	30.6	42.9	29.1	69.4
Urban	34.81	54.08	14.12	65.19	45.92	85.08	85.5	89.2	70.3	14.5	10.8	29.7
Total	41.79	56.11	27.16	58.21	43.89	72.84	61	73.9	33.9	39	26.1	66.1
	Cultivator			Agricultural Labour			HHs Industry workers			Other workers		
Rural	26.7	33.3	13.9	43.8	34.2	62.3	4.4	3.5	6	25.1	28.9	17.8
Urban	3	3.2	2.3	5	3.9	9.2	5.1	4.7	6.8	86.9	88.2	81.7
Total	23.4	28.4	12.9	38.4	29.3	57.8	4.5	3.7	6.1	33.7	38.7	23.2

Sources: Population Census Abstract, 2011, Series B2, Odisha, Population Census Abstract Note Population is the summation of Total workers and Total Non workers; Total workers is the summation of main and marginal worker; C, AL, Indus Workers, and Other workers calculated from total workers, P-Person, M-Male, F-Female.

Appendix 2.2: Decadal Growth rate of Population in Coastal District of Odisha from 1911 to 2011.

Dist. Name	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Odisha	10.44	-1.94	11.94	10.22	6.38	19.82	25.05	20.17	20.06	16.25	14.05
Baleshwar	-1.39	-6.99	1.29	4.68	-0.25	27.38	30.05	24.42	24.96	19.33	14.62
Bhadrak	-1.39	-6.99	1.29	4.68	-0.25	28.97	28.16	21.08	23.55	20.61	12.94
Kendrapara	2.42	-2.81	6.45	4.71	3.32	23.36	26.79	19.16	17.15	13.27	10.63
Jagatsinghapur	2.42	-2.81	6.45	4.71	3.32	18.27	22.80	23.47	17.98	13.26	7.48
Cuttack	2.42	-2.81	6.45	4.71	3.32	20.91	25.03	21.59	19.37	14.02	12.12
Jajapur	2.42	-2.81	6.45	4.71	3.32	21.70	24.78	19.77	22.01	17.18	12.49
Nayagarh	1.96	-10.04	10.81	8.07	7.93	19.97	22.86	18.13	14.52	10.46	11.37
Khordha	1.96	-10.04	10.81	8.07	7.93	17.99	30.46	31.87	32.67	24.99	19.94
Puri	1.96	-10.04	10.81	8.07	7.93	17.75	22.78	22.31	18.08	15.12	13.05

Sources: Population Census Abstract, 2011, Series A2, Odisha, Population Census Abstract, Total (Rural and Urban)

Appendix 2.3: Percentage of Male and Female Population from 1901 to 2011 of Odisha and Coastal Districts (in %)

District	M/F	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Odisha	M	49.09	48.65	47.95	48.37	48.71	49.45	49.98	50.31	50.47	50.74	50.70	50.54
	F	50.91	51.35	52.05	51.63	51.29	50.55	50.02	49.69	49.53	49.26	49.30	49.46
Baleshwar	M	48.42	47.91	47.66	48.59	49.41	51.23	51.12	50.90	50.88	51.14	51.20	51.10
	F	51.58	52.09	52.34	51.41	50.59	48.77	48.88	49.10	49.12	48.86	48.80	48.90
Bhadrak	M	48.42	47.91	47.66	48.59	49.41	48.87	50.00	50.44	50.11	50.37	50.66	50.47
	F	51.58	52.09	52.34	51.41	50.59	51.13	50.00	49.56	49.89	49.63	49.34	49.53
Kendrapara	M	48.36	47.60	46.31	47.36	48.00	49.07	49.50	49.73	50.00	49.82	49.65	49.84
	F	51.64	52.40	53.69	52.64	52.00	50.93	50.50	50.27	50.00	50.18	50.35	50.16
Jagatsinghapur	M	48.36	47.60	46.31	47.36	48.00	48.74	48.79	49.59	50.37	50.59	50.95	50.82
	F	51.64	52.40	53.69	52.64	52.00	51.26	51.21	50.41	49.63	49.41	49.05	49.18
Cuttack	M	48.36	47.60	46.31	47.36	48.00	50.34	51.38	51.37	51.62	52.04	51.59	51.54
	F	51.64	52.40	53.69	52.64	52.00	49.66	48.62	48.63	48.38	47.96	48.41	48.46
Jajapur	M	48.36	47.60	46.31	47.36	48.00	48.64	49.33	49.85	50.13	50.57	50.71	50.68
	F	51.64	52.40	53.69	52.64	52.00	51.36	50.67	50.15	49.87	49.43	49.29	49.32
Nayagarh	M	49.79	49.42	47.70	48.11	48.04	48.82	49.48	50.15	50.72	51.07	51.61	52.21
	F	50.21	50.58	52.30	51.89	51.96	51.18	50.52	49.85	49.28	48.93	48.39	47.79
Khordha	M	49.79	49.42	47.70	48.11	48.04	48.88	49.63	50.91	51.48	52.55	52.57	51.83
	F	50.21	50.58	52.30	51.89	51.96	51.12	50.37	49.09	48.52	47.45	47.43	48.17
Puri	M	49.79	49.42	47.70	48.11	48.04	49.98	50.39	50.53	50.72	50.77	50.80	50.94
	F	50.21	50.58	52.30	51.89	51.96	50.02	49.61	49.47	49.28	49.23	49.20	49.06

Sources: Census of India, 2011, Series A2, Odisha, Population Census Abstract, Total (Rural and Urban).

Note: M-Male and F-Female population.

Appendix 2.4: Percentage of Male and Female Population from 1901 to 2011 of India and Odisha (in %)

Census Year		1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Odisha	M	49.09	48.65	47.95	48.37	48.71	49.45	49.98	50.31	50.47	50.74	50.7	50.54
	F	50.91	51.35	52.05	51.63	51.29	50.55	50.02	49.69	49.53	49.26	49.3	49.46
India	M	50.67	50.93	51.15	51.23	51.37	51.38	51.52	51.82	51.71	51.91	51.74	51.47
	F	49.23	49.07	48.85	48.67	48.54	48.62	48.48	48.18	48.29	48.09	48.26	48.53

Sources: Population Census Abstract, 2011, Series A2, Odisha, Population Census Abstract, Total (Rural and Urban)

Appendix 2.5: Social Groups wise Work Participation Rates (WPR) in Coastal Districts of Odisha from 2001 and 2011 in URBAN areas

State & Districts Name	2001				2011			
	Scheduled Caste	Scheduled Tribes	Others	All Caste	Scheduled Caste	Scheduled Tribes	Others	All Caste
<i>URBAN</i>								
ORISSA	31.65	33.89	30.76	30.62	35.85	36.82	34.84	34.81
Baleswar	29.26	36.86	30.41	29.72	33.94	40.80	34.34	33.77
Bhadrak	27.58	33.97	27.26	27.18	30.73	41.62	31.31	30.91
Kendrapara	30.64	37.92	26.93	27.51	35.40	47.43	32.01	32.55
Jagatsinghapur	35.66	38.33	34.36	34.37	35.77	37.27	33.67	33.86
Cuttack	32.31	44.43	31.76	31.68	35.09	38.61	34.27	34.30
Jajapur	26.78	34.91	28.14	27.48	30.98	33.54	30.28	30.07
Nayagarh	30.13	39.91	28.06	28.30	32.68	31.72	31.73	31.86
Khordha	33.23	35.98	32.43	32.37	37.21	31.04	35.86	36.20
Puri	32.96	21.43	29.88	30.18	38.20	21.14	34.95	35.39
<i>TOTAL (R+U)</i>								
ORISSA	39.33	48.99	40.84	38.79	41.60	49.73	43.54	41.79
Baleswar	31.03	42.22	33.30	31.87	39.48	46.82	41.22	40.19
Bhadrak	30.80	40.67	28.64	28.87	31.58	40.49	31.21	31.11
Kendrapara	31.78	45.28	29.42	29.82	33.47	37.04	32.17	32.41
Jagatsinghapur	35.83	48.58	30.16	31.20	38.78	38.50	34.62	35.50
Cuttack	38.58	47.71	33.45	33.92	38.53	43.64	35.37	35.68
Jajapur	29.36	36.41	27.80	27.49	30.86	34.99	30.51	30.22
Nayagarh	37.35	48.47	33.67	33.32	38.13	48.28	36.15	35.69
Khordha	34.46	41.50	30.68	30.63	37.68	40.80	35.14	35.18
Puri	36.10	38.58	28.65	29.98	41.13	37.20	35.53	36.60

Sources: Population Census Abstract, 2001 and 2011, Series: B1. Note: Work Participation Rates = {Total Workers (Main + Marginal)/ Total Population}*100. Others including OBC also.

Appendix 3.1: District wise Ascending order of high scheduled caste population in Odisha across the social groups of total districts population in 2011 in RURAL areas (in percentage).

Districts	SC	ST	OTH	Districts	SC	ST	OTH
Subarnapur	25.59	9.86	64.54	Sambalpur	18.38	43.44	38.18
Jajapur	24.56	8.23	67.21	Kalahandi	18.21	30.3	51.49
Bhadrak	23.95	1.84	74.21	Balangir	18.13	23.06	58.82
Baudh	23.63	13.04	63.33	Debagarh	16.63	36.18	47.2
Jagatsinghapur	22.69	0.44	76.86	Khordha	16.23	5.81	77.97
Malkangiri	21.79	61.47	16.75	Kandhamal	15.22	57.59	27.19
Baleshwar	21.67	12.34	65.99	Nayagarh	14.26	6.52	79.22
Kendrapara	21.65	0.65	77.7	Rayagada	14.21	63.61	22.18
Cuttack	21.54	4.32	74.14	Koraput	13.93	57.45	28.61
Puri	20.71	0.31	78.99	Nabarangapur	13.91	58.95	27.14
Ganjam	20.53	4.07	75.4	Nuapada	13.07	35.42	51.51
Bargarh	20.24	20.36	59.4	Kendujhar	11.17	49.07	39.76
Dhenkanal	20.01	14.57	65.42	Sundargarh	8.55	67.03	24.42
Jharsuguda	19.73	40.22	40.04	Mayurbhanj	7.02	61.84	31.14
Anugul	19.21	15.18	65.61	Gajapati	5.82	60.9	33.27
ODISHA	17.78	25.72	56.5				

Sources: Population Census Abstract, 2011, GOI. Note: Summation of population across the social groups is hundred.

Appendix 3.2: District wise Employment Generation under MGNREGS in Coastal belt of Odisha, 2014-15.

District	Fund Available (Rs. Crores)	Total Expenditure (Rs. Crores)	Employment Generated (lakhs man-days)			
			SC	ST	OTH	Total
Odisha	1077.38	1073.06	84.54	222.09	228.12	534.75
Baleshwar	22.47	22.5	1.83	1.4	7.5	10.73
Bhadrak	18.44	19.1	1.28	0.06	6.92	8.26
Kendrapara	15.8	14.98	1.19	0.04	5.16	6.39
Jagatsinghapur	4.8	5.04	0.77	0.01	2.14	2.92
Cuttack	17.7	17.94	1.63	0.6	4.64	6.87
Jajapur	12.36	12.51	1.65	0.51	3.59	5.75
Nayagarh	24.65	24.5	1.68	1.52	9.54	12.74
Khordha	10.38	11.02	1.26	0.54	3.1	4.9
Puri	17.53	17.87	0.96	0.06	4.78	5.8

Sources: Odisha Economic Survey 2015-16, Pg. Annexure 2/25.

Appendix

Appendix 3.3: Social groups and village wise proportion of workers as their main or primary occupation (on the basis of days employment in last one year)

Social groups	Name of villages	SEA	SENA	CLA	CNALV	CCML	CSML	CWYML	Business	Regular Salaries	Total
SCs	Kanikapada	0	4	17	20	0	10	5	0	0	56
	Mukundapur	2	1	16	17	1	7	6	0	0	50
	Rahania	1	1	15	20	0	24	2	4	4	71
	Chudamani	1	0	11	32	0	13	1	3	2	63
	All village	4	6	59	89	1	54	14	7	6	240
STs	Kanikapada		1	9	20	0	1	0	7	4	42
	Mukundapur		0	13	15	1	1	3	0	1	34
	Rahania		0	7	4	1	3	1	0	0	16
	Chudamani	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	All village		1	29	39	2	5	4	7	5	92
OBCs	Kanikapada	0	20	0	16	0	4	12	0	2	54
	Mukundapur	2	4	1	19	5	12	13	12	0	68
	Rahania	3	3	10	16	2	8	6	3	1	52
	Chudamani	3	0	12	25	0	15	11	0	5	71
	All village	8	27	23	76	7	39	42	15	8	245
OTH	Kanikapada	0	3	0	3	1	7	0	0	0	14
	Mukundapur	5	5	0	9	0	3	8	0	3	33
	Rahania	1	0	6	2	0	5	5	0	0	19
	Chudamani	3	0	3	10	0	3	0	3	3	25
	All village	9	8	9	24	1	18	13	3	6	91
ALL	Kanikapada	0	28	26	59	1	22	17	7	6	166
	Mukundapur	9	10	30	60	7	23	30	12	4	185
	Rahania	5	4	38	42	3	40	14	7	5	158
	Chudamani	7	0	26	67	0	31	12	6	10	159
	All village	21	42	120	228	11	116	73	32	25	668

Sources: Field Survey, 2016. Note column total is equal to 100 percent. Parenthesis is the absolute figure of workers main occupation as per as the number of days employed

Appendix 3.4: Average number of days work in different activities as primary or main occupation of workers in a year.

As principal occupation	Name of village	SCs	STs	OBCs	OTH	ALL Caste
Self employed in agriculture (SEA)	Kanikapada	-	-	-	-	-
	Mukundapur	40	-	50	88	69
	Rahania	60	-	100	40	80
	Chudamani	60	-	93	113	97
	All villages	50	-	85	91	81
Self employed in non-agriculture (SENA)	Kanikapada	120	0	211	207	190
	Mukundapur	120	-	128	136	131
	Rahania	70	-	260	-	213
	Chudamani	-	-	-	-	-
	All villages	112	0	204	163	178
Casual commuting migrant labour (CCML)	Kanikapada	-	-	-	180	180
	Mukundapur	120	100	264	-	220
	Rahania	-	150	200	-	183
	Chudamani	-	-	-	-	-
	All villages	120	125	246	180	206
Casual seasonal migrant labour (CSML)	Kanikapada	166	240	245	184	190
	Mukundapur	177	180	212	202	199
	Rahania	221	227	230	218	223
	Chudamani	184	-	191	153	184
	All villages	196	220	221	192	201
Casual whole year migrant labour (CWYML)	Kanikapada	240	-	290	-	275
	Mukundapur	290	300	252	281	272
	Rahania	270	210	283	288	278
	Chudamani	250	-	247	-	248
	All villages	266	278	266	284	270
Business (B)	Kanikapada	-	133	-	-	133
	Mukundapur	-	-	188	-	188
	Rahania	174	-	240	-	202
	Chudamani	197	-	-	143	170
	All villages	184	133	199	143	176
Regular wages or salaries holders (RW/SE)	Kanikapada	-	365	283	-	338
	Mukundapur	-	365	-	327	336
	Rahania	263	-	365	-	283
	Chudamani	333	-	329	300	321
	All villages	286	365	322	313	320
All occupation average	Kanikapada	134	154	233	182	175
	Mukundapur	126	112	185	177	154
	Rahania	160	135	175	174	164
	Chudamani	148	-	163	142	154
	All villages	144	135	187	168	162

Sources: Field Survey, 2016. Note for casual agricultural labour and non-agriculture labour see chapter 3. This is calculate from the principal occupation of individual from individual file.

Appendix 3.5: Access of Job Card for MGNREGS work by casual labour among social groups in villages

Name of Social Groups	Yes or No	Do you have Job Card ? (it is asked only to CASUAL LABOUR)				
		Kanikapada	Mukundapur	Rahania	Chudamani	All villages
SCs	Yes	88.90	54.80	84.40	55.80	70.40
	No	11.10	45.20	15.60	44.20	29.60
STs	Yes	33.30	60.90	63.60	NA	50.00
	No	66.70	39.10	36.40	NA	50.00
OBCs	Yes	21.40	78.90	84.00	83.80	73.70
	No	78.60	21.10	16.00	16.20	26.30
OTH	Yes	37.50	87.50	92.30	-	75.90
	No	62.50	12.50	7.70	-	24.10
ALL	Yes	58.10	60.50	81.60	72.00	68.20
	No	41.90	39.50	18.40	28.00	31.80

Sources: Field Survey, 2016. Note Job card (also called labour card in village) means any employment card available by government for providing work under developmental schemes. It is mainly available for NREGS work. Casual Labour: include subsumed of both casual agricultural labour and casual non-agricultural labour. It is asked to casual labour who (221 casual labours) response the availability of job card and (103 casual labours) not response it out of 324 casual labours).

Appendix 3.6: Working status under MGNREGS work by casual labour among social groups in villages.

Name of Social Groups	Yes or No	Do you work under NREGS ? (it is asked to only CASUAL LABOUR)				
		Kanikapada	Mukundapur	Rahania	Chudamani	All villages
SCs	Yes	62.50	23.50	55.60	13.00	42.40
	No	37.50	76.50	44.40	87.00	57.60
STs	Yes	25.00	57.10	57.10	NA	48.30
	No	75.00	42.90	42.90	NA	51.70
OBCs	Yes	33.30	37.50	38.10	19.40	29.60
	No	66.70	62.50	61.90	80.60	70.40
OTH	Yes	-	-	28.60	50.00	36.40
	No	-	100.00	71.40	50.00	63.60
ALL	Yes	53.50	36.00	46.80	22.70	38.50
	No	46.50	64.00	53.20	77.30	61.50

Sources: Field Survey, 2016. Note Job card (also called labour card in village) means any employment card available by government for providing work under developmental schemes. It is mainly available for NREGS work. Casual Labour: include subsumed of both casual agricultural labour and casual non-agricultural labour. It is asked to 221 casual labour but only 85 casual labour said they work under NREGS and 136 casual labours not work during one year.

Appendix 3.7: Caste wise categorisation of migrant labour in four villages (numbers)

Name of Social Groups	Type of migrant labour	Kanikapada	Mukundapur	Rahania	Chudamani	All Villages
Scheduled Caste	CCML	32	29	27	33	121
	CSML	6	5	21	10	42
	CWYML	8	5	4	1	18
	Total	46	39	52	44	181
Scheduled Tribes	CCML	23	20	10	NA	53
	CSML	1	3	2	NA	6
	CWYML	0	3	2	NA	5
	Total	24	26	14	NA	64
Other Backward Caste	CCML	14	23	27	28	92
	CSML	2	6	6	15	29
	CWYML	12	19	9	6	46
	Total	28	48	42	49	167
Others	CCML	3	9	8	11	31
	CSML	8	2	4	3	17
	CWYML	0	8	6	0	14
	Total	11	19	18	14	62

Note: Field Survey, 2016, Note parenthesis in column total is hundred.; CCML indicates: casual commuting migrant labour; CSML: casual seasonal migrant labour; and CWYML: casual whole year migrant labour

Appendix 4.1: Percentage of Total land ownership across the social groups of coastal districts of Odisha in 2011-12

Name of Districts	URBAN				TOTAL (R+U)			
	ST	SC	OBC	OTH	ST	SC	OBC	OTH
Balasore	0.21	0.32	2.36	97.1	3.63	17.44	36.94	41.99
Bhadrak	0	0.79	33.46	65.75	0	13.77	45.42	40.81
Kendrapada	1.77	3.81	44.21	50.21	0.14	4.14	72.51	23.21
Jagatsinghpur	0.52	12.5	54.22	32.74	3.49	5.5	31.47	59.54
Cuttack	0.43	42.8	0.11	56.67	0.05	11.66	23.77	64.52
Jajpur	0.15	50.5	33.01	16.33	0.12	14.69	32.32	52.87
Nayagarh	0	2.18	0.28	97.54	33.2	4.75	14.62	47.43
Khurdha	0	21.5	21.34	57.15	0.89	9.74	28.23	61.13
Puri	0	6.06	3.98	89.96	0.3	1.81	25.21	72.68
Odisha	14.8	14.6	27.53	43.05	21.35	11.19	40.02	27.44

Sources: Unit Level Data, 68th NSSO, Level-2, 2011-12; Note: Summation of across social groups indicate hundred percent.

Table 4.2: Average areas of Land owned or ownership among the social groups of coastal districts of Odisha in 2011-12

Name of Districts	URBAN					TOTAL (R+U)				
	ST	SC	OBC	OTH	ALL	ST	SC	OBC	OTH	ALL
Balasore	0.02	0.03	0.04	0.7	0.47	1.09	0.82	1.27	1.54	1.24
Bhadrak	-	0.06	0.51	0.77	0.61	-	0.82	1.59	1.73	1.45
Kendrapada	0.25	0.27	0.63	0.55	0.54	0.25	0.31	1.74	1.05	1.29
Jagatsinghpur	0.02	0.6	1.73	0.52	0.74	1.28	0.54	1.08	2.24	1.45
Cuttack	0.04	4.03	0.02	0.46	0.67	0.04	0.79	0.79	1.41	1.09
Jajpur	0.04	2.18	1.07	0.38	1	0.09	0.83	1.81	1.75	1.49
Nayagarh	-	0.03	0.01	0.69	0.39	2.91	0.25	0.48	1.26	1.02
Khurdha	-	0.32	0.63	0.48	0.45	0.12	0.4	1.15	1.51	1.03
Puri	-	0.08	0.11	0.32	0.25	0.2	0.18	1.37	1.66	1.35
Odisha	0.11	0.55	0.69	0.87	0.77	1.67	0.91	1.71	1.77	1.56

Sources: Unit Level Data, 68th NSSO, Level-2, 2011-12; Note: Average areas in acre.

Appendix 4.3: Distribution of households landless homestead land and owned without patta homestead lands

Name of villages	Landless homestead land with patta					Owned without patta homestead land HHs				
	SCs	STs	OBCs	OTH	All	SCs	STs	OBCs	OTH	All
Kanikapada	17	1	1	-	19	18	1	0	4	23
Mukundapur	2	-	2	-	4	3	0	2	1	6
Rahania	2	2	1	1	6	7	2	4	1	14
Chudamani	-	-	-	-	-	1	0	0	1	2
All villages	21	3	4	1	29	29	3	6	7	45

Sources: Field Survey, 2016, Note: First block indicate that the distribution of HHs who has no homestead land (patta) and second block indicate distribution of HHs owned unrecorded (govt.) homestead land.

Appendix 4.4: Social group and village wise agricultural land owned by the households (in acre).

Name of villages	Village wise and social groups wise only agriculture land owned				
	SCs	STs	OBCs	OTH	All
Kanikapada	0.60 [2]	2.50 [2]	4.43 [13]	25.85 [12]	33.38 [29]
Mukundapur	8.68 [21]	1.90 [3]	15.40 [26]	22.86 [14]	48.84 [64]
Rahania	19.56 [34]	-	13.46 [28]	3.22 [9]	36.24 [71]
Chudamani	13.04 [30]	-	24.78 [35]	4.96 [11]	42.78 [76]
All Village	41.88 [87]	4.40 [5]	58.07 [102]	56.89 [46]	161.24 [240]

Sources: Field Survey, 2016, Note Parenthesis indicate the HHs who are owned agriculture land (which has patta).

Appendix 4.5: Average agricultural land owned by the households (including landless agriculture land owned HHs)

Name of villages	Village wise and social groups wise average agricultural land owned				
	Scheduled Caste	Scheduled Tribes	Other Backward Caste	Other	All Categories
Kanikapada	0.02	0.09	0.15	2.15	0.33
Mukundapur	0.26	0.11	0.41	1.43	0.47
Rahania	0.43	-	0.37	0.27	0.36
Chudamani	0.29	-	0.62	0.29	0.42
All Village	0.27	0.08	0.41	1.00	0.40

Sources: Field Survey, 2016, Note It is the average of all HHs i.e., taking all 408 HHs for this calculation (which has patta). Including landless agricultural land owned HHs also. It is measure in acre.

Appendix 4.6: Social group and village wise total and average land (both agriculture and homestead) owned by the households (in acre).

Name of villages	Total land owned					Average land owned per HHs				
	SCs	STs	OBCs	OTH	All	SCs	STS	OBCs	OTH	All
Kanikapada	2.39	3.68	5.13	26.94	38.13	0.08	0.13	0.18	2.24	0.38
Mukundapur	11.02	3.16	17.62	29.29	61.09	0.33	0.19	0.46	1.83	0.59
Rahania	21.74	0.33	16.28	3.68	42.02	0.47	0.04	0.45	0.31	0.41
Chudamani	16.34	-	27.1	6.78	50.22	0.36	-	0.68	0.4	0.49
All villages	51.49	7.17	66.12	66.68	191.45	0.33	0.13	0.46	1.17	0.47

Sources: Field Survey, 2016; Note: Taking all HHs for average calculation i.e., 408 HHs because all HHs owned some land.

Appendix 4.7: Social group and village wise leasing-in land, average leasing-in land by the households (in acre).

Name of villages	Total leasing-in land					Average leasing-in land per HHs				
	SCs	STs	OBCs	OTH	All	SCs	STS	OBCs	OTH	All
Kanikapada	29.00 [22]	2.30 [3]	2.58 [4]	1.50 [1]	35.38 [30]	1.32	0.77	0.65	1.50	1.18
Mukundapur	31.65 [24]	23.68 [14]	18.54 [12]	2.50 [2]	76.37 [52]	1.32	1.69	1.55	1.25	1.47
Rahania	31.20 [28]	5.16 [6]	33.02 [21]	8.72 [7]	78.10 [62]	1.11	0.86	1.57	1.25	1.26
Chudamani	21.94 [19]	0	31.96 [23]	11.54 [9]	65.44 [51]	1.15	0	1.39	1.28	1.28
All villages	113.79 [93]	31.14 [23]	86.10 [60]	24.26 [19]	255.59 [195]	1.22	1.35	1.44	1.28	1.31

Sources: Field Survey, 2016, Note Parenthesis indicate the HHs who are leasing-in agriculture land. The average calculation only taking leasing-land HHs i.e., 195 HHs out of 408 HHs. That means 213 HHs say they are not leasing-in any land.

Appendix 4.8: Social group and village wise leasing-out land, average leasing-out land by the households (in acre).

Name of villages	Total leasing-in land					Average leasing-in land per HHs				
	SCs	STs	OBCs	OTH	All	SCs	STS	OBCs	OTH	All
Kanikapada	0	0.50 [1]	2.65 [7]	24.30 [9]	27.45 [17]	-	0.50	0.38	2.70	1.61
Mukundapur	0	0	6.36 [9]	9.00 [3]	15.36 [12]	-	-	0.71	3.00	1.28
Rahania	2.12 [4]	0	1.88 [5]	0	4.00 [9]	0.53	-	0.38	-	0.44
Chudamani	3.50 [9]	0	6.88 [12]	0.12 [1]	10.50 [22]	0.39	-	0.57	0.12	0.48
All villages	5.62 [13]	0.50 [1]	17.77 [33]	33.12 [13]	57.31 [60]	0.43	0.50	0.54	2.57	0.96

Sources: Field Survey, 2016, Note Parenthesis indicate the HHs who are leasing-out agriculture land. The average calculation only taking leasing-out land HHs i.e.,60 HHs out of 408 HHs. That means 348 HHs say they are not leasing-out any land.

Appendix 4.9: Distribution of households across size class among social groups and villages (in numbers)

Social groups and Villages	Social groups HHs wise across the size class					Total
	Landless (less than 0.010)	Marginal (0.011-1.000)	Small (1.001-2.000)	Medium (2.001-4.000)	Large (4.001+)	
SCs	8	137	6	3	0	154
STs	3	48	3	0	0	54
OBCs	7	116	15	4	1	143
GEN	0	37	10	3	7	57
ALL	18	338	34	10	8	408
Villages	Village wise HHs across the size class					
Kanikapada	6	86	3	1	4	100
Mukundapur	5	79	13	4	3	104
Rahania	2	88	9	3	0	102
Chudamani	5	85	9	2	1	102
All villages	18	338	34	10	8	408

Sources: Field Survey, 2016,

Appendix 4.10: Total land owned across the size class among social groups and villages (in acres).

Social groups and Villages	Social groups wise land owned across the size class					Total
	Landless (less than 0.010)	Marginal (0.011-1.000)	Small (1.001-2.000)	Medium (2.001-4.000)	Large (4.001+)	
SCs	0.08	37.69	7.18	6.55	-	51.49
STs	0.03	2.81	4.34	-	-	7.18
OBCs	0.07	33.80	18.44	9.12	4.70	66.12
GEN	-	12.96	11.08	8.69	33.95	66.68
ALL	0.18	87.25	41.03	24.36	38.65	191.46
Villages	Village wise land owned across the size class					
Kanikapada	0.06	11.59	3.75	3.19	19.55	38.14
Mukundapur	0.05	21.83	14.81	10.00	14.40	61.09
Rahania	0.02	24.70	10.75	6.55	-	42.02
Chudamani	0.05	29.13	11.72	4.62	4.70	50.22
All villages	0.18	87.25	41.03	24.36	38.65	191.46

Sources: Field Survey, 2016, Note: This is the absolute land in acre owned by HHs from agriculture and homestead land from both patta and without patta.

Appendix 4.11: Proportion of households and area of land possessed across social groups during Kharif.

Village Name	Households and Area	Total Households and area cultivated across social groups (in number & acre)				
		SCs	STS	OBCs	OTH	ALL
Kanikapada	Households	23	5	8	2	38
	Area	29.6	3.8	4.1	2.45	39.95
Mukundapur	Households	30	16	24	12	82
	Area	39.93	25.74	27.58	21.36	114.61
Rahania	Households	37	6	28	10	81
	Area	48.52	5.16	44.6	11.84	110.22
Chudamani	Households	27	0	29	14	70
	Area	30.64	-	49.18	17.02	96.84
All Villages	Households	117	27	89	38	271
	Area	148.69	34.7	125.46	52.77	361.62

Sources: Field Survey 2016, Note: This is the Absolute land cultivated during Kharif. The HHs measure by number and land possessed by acre.

Appendix 4.12: Village and social groups wise proportion of farm and non-farm income of casual agricultural labour.

Social Groups	Kanikapada		Mukundapur		Rahania		Chudamani	
	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income
SCs	66.07	33.93	52.42	47.58	51.87	48.13	68.76	31.24
STs	49.51	50.49	55.94	44.06	30.1	69.9	-	-
OBC	-	-	14.25	85.75	59.68	40.32	57.52	42.48
OTH	11.11	88.89	-	-	42.94	57.06	39.17	60.83
ALL	58.41	41.59	50.29	49.71	49.37	50.63	59.15	40.85

Sources: Field Survey, 2016,

Appendix 4.13: Village and social groups wise proportion of farm and non-farm income of casual agricultural labour.

Social Groups	Kanikapada		Mukundapur		Rahania		Chudamani	
	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income	Farm Income	Non-Farm Income
SCs	32.03	67.97	29.72	70.28	27.93	72.07	23.95	76.05
STs	25.52	74.48	31.74	68.26	37.86	62.14	-	-
OBC	5.42	94.58	11.84	88.16	22.88	77.12	25.51	74.49
OTH	13.42	86.58	24.84	75.16	14.68	85.32	35.58	64.42
ALL	15.73	84.27	21.1	78.9	25.08	74.92	25.87	74.13

Sources: Field Survey, 2016,

Appendix 4.14: Average farm and Non-farm income of Casual agriculture Labour {village wise & social groups wise} (in Rs)

Social Groups wise	Farm Income	Non-Farm Income	Total Income	Farm Income	Non-Farm Income	Total Income
	Kanikapada			Mukundapur		
SCs	44062.5	22632.5	66695	29536.36	26809.09	56345.45
STs	26000	26516.67	52516.67	28275	22266.67	50541.67
OBCs	-	-	-	12000	72200	84200
OTH	3000	24000	27000	-	-	-
ALL	34100	24277.33	58377.33	28141.67	27816.67	55958.33
				Rahania		
				Chudamani		
SCs	28334.62	26289.23	54623.85	47766.25	21700	69466.25
STs	25850	60016.67	85866.67	-	-	-
OBCs	31450	21245	52695	52823.33	39013.33	91836.67
OTH	30150	40060	70210	26050	40462.67	66512.67
ALL	29391.94	30147.1	59539.03	46784.5	32305.4	79089.9

Sources: Field Survey, 2016,

Appendix 4.15: Average farm and Non-farm income of Casual non-agriculture Labour {village wise & social groups wise} (in Rs)

Social Groups wise	Farm Income	Non-Farm Income	Total Income	Farm Income	Non-Farm Income	Total Income
	Kanikapada			Mukundapur		
SCs	20357.89	43209.47	63567.37	19571.43	46285.71	65857.14
STs	14960	43650	58610	26495	56985	83480
OBCs	7825	136600	144425	11442.86	85170	96612.86
OTH	8966.67	57844.44	66811.11	25536.36	77272.73	102809.1
ALL	13576.47	72743.82	86320.29	18246.43	68237.29	86483.71
	Rahania			Chudamani		
SCs	22158.06	57174.19	79332.26	20049.09	63666.67	83715.76
STs	23324	38290	61614	-	-	-
OBCs	19667.65	66304.12	85971.76	25224.48	73645.17	98869.66
OTH	15535.71	90285.71	105821.4	23145	41907.8	65052.8
ALL	20777	62050.33	82827.33	22563.61	64663.72	87227.33

Sources: Field Survey, 2016,

Appendix 4.16: Proportion income of casual agricultural labour (CAL) from cultivation, agriculture labour work and other work (village wise)

Social Groups	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
	Kanikapada			Mukundapur		
SCs	16.88	46.52	36.6	36.75	63.25	0
STs	12.82	86.54	0.64	54.02	45.98	0
OBC	-	-	-	0	100	0
OTH	100	0	0	-	-	-
ALL	16.13	58.46	25.42	41.66	58.34	0
	Rahania			Chudamani		
SCs	50.16	44.41	5.43	51.85	46.97	1.18
STs	30.37	69.63	0	-	-	-
OBCs	47.79	49.03	3.18	42.58	57.42	0
OTH	51.97	48.03	0	37.3	62.7	0
ALL	47.96	48.75	3.29	45.92	53.6	0.48

Sources: Field Survey, 2016, Note: Cultivation + agriculture labour work + others = 100 per cent. Average income is measured by Rs. **Cultivation include:** income from own land, share cropping, leasing-in land and leased-out land; **Agriculture labour work include:** income from casual labour, other family casual labour income and permanent agriculture labour work; **Other work include:** income from animal husbandry, machinery, fisheries etc.

Appendix 4.17: Average income of casual agricultural labour (CAL) from cultivation, agriculture labour work and other work

Social Groups	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
		Kanikapda			Mukundapur	
	Rahania		Chudamani			
SCs	7437.5	20500	16125	10854.55	18681.82	0
STs	3333.33	22500	166.67	15275	13000	0
OBC	-	-	-	0	12000	0
OTH	3000	0	0	-	-	-
ALL	5500	19933.33	8666.67	11725	16416.67	0
SCs	14211.54	12584.62	1538.46	24766.25	22437.5	562.5
STs	7850	18000	0	-	-	-
OBCs	15030	15420	1000	22490	30333.33	0
OTH	15670	14480	0	9716.67	16333.33	0
ALL	14095.16	14329.03	967.74	21484.5	25075	225

Sources: same as Appendix 4.16.

Appendix 4.18: Proportion income of casual agricultural labour (CAL) from non-agriculture labour work, migration and other work.

Social Groups	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
	Rahania		Chudamani			
SCs	78.43	0	21.57	62.39	33.23	4.37
STs	88.94	7.54	3.52	43.79	49.78	6.44
OBC	-	-	-	80.33	13.85	5.82
OTH	0	100	0	-	-	-
ALL	77.85	9.89	12.26	60.02	34.85	5.13
SCs	59.22	12.29	28.49	96.37	0	3.63
STs	83.31	4.44	12.25	-	-	-
OBCs	67.55	17.89	14.57	73.19	13.67	13.14
OTH	35.95	0	64.05	52.72	0	47.28
ALL	60.77	9.42	29.82	75.58	7.43	17

Sources: Field Survey, 2016, Note: Non-agricultural labour work + migration work + others = 100 per cent. Average income is measured by Rs. **Non-agriculture labour work include:** income from commuting migration, non-farm work, income from other family on casual non-agriculture work; **Migration labour work include:** income from migrating other than commuting work; **Other work include:** income from non-farm NREGS work, permanent labour, lord & unload, business, own account enterprise, construction work, house rent, old age pension, etc.

Appendix 4.19: Average income of casual agricultural labour (CAL) from non-agriculture labour work, migration and other work.

Social Groups	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
	Kanikapada			Mukundapur		
SCs	17750	0	4882.5	16727.27	8909.09	1172.73
STs	23583.33	2000	933.33	9750	11083.33	1433.33
OBC	-	-	-	58000	10000	4200
OTH	0	24000	0	-	-	-
ALL	18900	2400	2977.33	16694.44	9694.44	1427.78
Social Groups	Rahania			Chudamani		
	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
SCs	15569.23	3230.77	7489.23	20912.5	0	787.5
STs	50000	2666.67	7350	-	-	-
OBCs	14350	3800	3095	28555.56	5333.33	5124.44
OTH	14400	0	25660	21333.33	0	19129.33
ALL	18319.35	2838.71	8989.03	24415	2400	5490.4

Sources: same as Appendix 4.18.

Appendix 4.20: Proportion income of casual non-agricultural labour (CNAL) from cultivation, agriculture labour work and other work (village wise)

Social Groups	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
	Kanikapada			Mukundapur		
SCs	25.05	61.25	13.7	55.72	42.09	2.19
STs	5.35	87.63	7.02	43.1	56.9	0
OBC	27.16	66.45	6.39	87.36	12.64	0
OTH	43	17.35	39.65	89.32	10.68	0
ALL	20.59	66.84	12.56	68.43	30.87	0.7
Social Groups	Rahania			Chudamani		
	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
SCs	59.78	35.57	4.66	44.98	53.2	1.81
STs	22.83	77.17	0	-	-	-
OBCs	66.98	33.02	0	50.02	45.88	4.1
OTH	58.62	34.94	6.44	39.73	60.27	0
ALL	58.15	38.72	3.13	46.5	50.91	2.59

Sources: Field Survey, 2016, Note: Cultivation + agriculture labour work + others = 100 per cent. Average income is measured by Rs. **Cultivation include:** income from own land, share cropping, leasing-in land and leased-out land; **Agriculture labour work include:** income from casual labour, other family casual labour income and permanent agriculture labour work; **Other work include:** income from animal husbandry, machinery, fisheries etc.

Appendix 4.21: Average income of casual non-agricultural labour (CNAL) from cultivation, agriculture labour work and other work

Social Groups	Cultivation	Agriculture labour work	Others	Cultivation	Agriculture labour work	Others
		Kanikapada			Mukundapur	
SCs	5100	12468.42	2789.47	10904.76	8238.1	428.57
STs	800	13110	1050	11420	15075	0
OBC	2125	5200	500	9996.43	1446.43	0
OTH	3855.56	1555.56	3555.56	22809.09	2727.27	0
ALL	2795.59	9075	1705.88	12485.71	5632.14	128.57
		Rahania		Chudamani		
SCs	13245.16	7880.65	1032.26	9018.79	10666.67	363.64
STs	5324	18000	0	-	-	-
OBCs	13173.53	6494.12	0	12617.59	11572.41	1034.48
OTH	9107.14	5428.57	1000	9195	13950	0
ALL	12082	8045	650	10492.78	11487.5	583.33

Sources: same as Appendix 4.20.

Appendix 4.22: Proportion income of casual non-agricultural labour (CNAL) from non-agriculture labour work, migration and other work.

Social Groups	Non-agriculture labour work	Migration	Others	Non-agriculture labour work	Migration	Others
	Kanikapada			Mukundapur		
SCs	26.56	50.18	23.25	54.99	39.09	5.92
STs	77.16	17.18	5.66	48.48	24.3	27.22
OBC	34.06	20.02	45.92	50.44	36.44	13.12
OTH	15.75	73.76	10.49	46.59	48.47	4.94
ALL	38.49	30.18	31.32	50.45	37.67	11.88
		Rahania		Chudamani		
SCs	65.18	18.79	16.03	61.39	6.47	32.14
STs	84.62	13.58	1.8	-	-	-
OBCs	58.28	23.47	18.24	73.09	6.46	20.45
OTH	18.04	0	81.96	81.73	0	18.27
ALL	56.09	16.75	27.16	68.59	5.89	25.53

Sources: Field Survey, 2016, Note: Non-agricultural labour work + migration work + others = 100 per cent. Average income is measured by Rs. **Non-agriculture labour work include:** income from commuting migration, non-farm work, income from other family on casual non-agriculture work; **Migration labour work include:** income from migrating other than commuting work; **Other work include:** income from non-farm NREGS work, permanent labour, lord & unload, business, own account enterprise, construction work, house rent, old age pension, etc.

Appendix 4.23: Average income of casual agricultural labour (CAL) from non-agriculture labour work, migration and other work.

Social Groups	Non-agriculture work	Migration	Others	Non-agriculture work	Migration	Others
	Kanikapada			Mukundapur		
SCs	11477.89	21684.21	10047.37	25452.38	18095.24	2738.1
STs	33680	7500	2470	27625	13850	15510
OBC	46520	27350	62730	42960.71	31035.71	11173.57
OTH	9111.11	42666.67	6066.67	36000	37454.55	3818.18
ALL	28001.18	21955.88	22786.76	34423.57	25707.14	8106.57
	Rahania			Chudamani		
SCs	37264.52	10741.94	9167.74	39084.85	4121.21	20460.61
STs	32400	5200	690	-	-	-
OBCs	38643.53	15564.71	12095.88	53827.59	4758.62	15058.97
OTH	16285.71	0	74000	34250	0	7657.8
ALL	34802.33	10393.33	16854.67	44351.39	3805.56	16506.78

Sources: same as Appendix 4.22.

Appendix 4.24: Number of households borrowing and not borrowing loan across the social groups.

Name of villages	Number of HHs Not Borrowing					Number of HHs Borrowing loan				
	SCs	STs	OBCs	OTH	ALL	SCs	STs	OBCs	OTH	ALL
Kanikapada	8	8	4	0	20	22	21	25	12	80
Mukundapur	3	5	1	1	10	30	12	37	15	94
Rahania	7	5	4	3	19	39	3	32	9	83
Chudamani	7	0	3	0	10	38	0	37	17	92
All villages	25	18	12	4	59	129	36	131	53	349

Sources: Field Survey, 2016,

Appendix 4.25: Average loan borrowed by households from formal, informal and from both in all villages among the social groups (in Rs)

Social Groups	Kanikapada			Mukundapur		
	Formal sources	Informal sources	Total (Both)	Formal sources	Informal sources	Total (Both)
SCs	3318.18	5318.18	8636.36	4850	39636.67	44486.67
STs	5857.14	16761.9	22619.05	583.33	24108.33	24691.67
OBCs	14600	45720	60320	19945.95	50810.81	70756.76
OTH	23833.33	20750	44583.33	30666.67	59200	89866.67
ALL	10587.5	23262.5	33850	14367.02	45174.47	59541.49
	Rahania			Chudamani		
Social Groups	Formal sources	Informal sources	Total (Both)	Formal sources	Informal sources	Total (Both)
SCs	6948.72	43948.72	50897.44	10263.16	28894.74	39157.89
STs	0	30000	30000	NA	NA	NA
OBCs	42562.5	50828.13	93390.63	14972.97	20432.43	35405.41
OTH	11442.22	22622.22	34064.44	20176.47	38588.24	58764.71
ALL	20915.42	43784.34	64699.76	13989.13	27282.61	41271.74

Sources: Field Survey, 2016,

Appendix 4.26: Composition of formal sources loan across different sub-categories

Social Groups	CBs	CoO	RRBs	Others	CBs	CoO	RRBs	Others
	Kanikapada				Mukundapur			
SCs	0	6.85	0	93.15	22.34	43.3	0	34.36
STs	32.52	60.98	0	6.5	0	100	-	-
OBCs	6.85	52.6	0	40.55	47.43	38.35	-	-
OTH	20.28	72.73	0	6.99	18.04	80.65	-	1.3
ALL	14.52	56.67	0	28.81	34.47	53.61	0	11.92
Social Groups	Rahania				Chudamani			
	CBs	CoO	RRBs	Others	CBs	CoO	RRBs	Others
SCs	15.87	71.22	-	12.92	16.67	28.21	-	55.13
STs	-	-	-	-	-	-	-	-
OBCs	51.32	33.11	12.04	3.52	18.95	40.43	3.07	37.55
OTH	24.28	75.72			0	34.4	4.37	61.22
ALL	44.18	41.59	9.45	4.78	13.21	35.12	2.49	49.18

Sources: Field Survey, 2016, Note: CBs-Commercial Banks, CoO-Cooperative Banks, RRB-Regional Rural Banks, Summation of all sources is equal to hundreds

Appendix 4.27: Average amount of loan and rate of interest of different categories of formal sources

Name of villages	Social Groups	Commercial Banks		Co-operative Banks		Regional Rural Banks		Other Formal Sources	
		Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest
Kanikapada	SC	-	-	5000	0	-	-	7556	2.78
	STs	20000	0.83	25000	1.14	-	-	4000	2
	OBCs	25000	1	32000	1	-	-	21143	2.29
	OTH	14500	0.89	23111	0.93	-	-	10000	1.5
	ALL	17571.43	0.89	25263	0.94	-	-	12200	2.4
Mukundapur	SCs	10833.33	0.87	10500	1.13	-	-	16667	2
	STs			7000	0.98	-	-	-	-
	OBCs	58333.33	0.91	18867	1.76	-	-	35000	2
	OTH	27666.67	1.07	30917	1.75	-	-	6000	1
	ALL	38791.67	0.94	21294	-	-	-	23000	1.86
Rahania	SCs	14333.33	1.67	16083	2.42	-	-	11667	4
	STs	-	-	-	-	-	-	-	-
	OBCs	87375	1.34	28188	1.67	82000	1.5	16000	1.49
	OTH	25000	0.35	19495	2.25	-	-	-	-
	ALL	63916.67	1.34	22562	2.02	82000	1.5	13833	2.74
Chudamani	SCs	32500	3	11000	0.95	-	-	14333	2.17
	STs	-	-	-	-	-	-	-	-
	OBCs	35000	1	20364	1.36	8500	1.5	13867	1.69
	OTH	-	-	19667	1.22	15000	3	19091	1.36
	ALL	34000	1.8	16741	1.18	10667	2	15439	1.78

Sources: Field Survey, 2016,

Appendix 4.28: Composition of informal sources loan across the sub-categories.

Villages	Social Groups	Money Lender	Rich Farmers	Private Companies	Friend & Relatives	Input Traders	Other	Total informal
Kanikapada	SCs	21.79	17.09	8.55	33.33	19.23	0	100
	STs	15.63	2.27	51.7	18.47	11.93	0	100
	OBCs	38.32	2.01	27.03	4.81	0.87	26.95	100
	OTH	32.53	0	42.97	12.05	1.61	10.84	100
	ALL	32.21	2.74	32.67	10.16	4.22	18	100
Mukundapur	SCs	54.37	1.68	18.08	8.83	3.41	13.62	100
	STs	70.52	2.42	2.07	-	13.58	11.41	100
	OBCs	50.27	1.06	25.48	5.59	1.6	16.01	100
	OTH	63.96	-	8.56	14.64	-	12.84	100
	ALL	55.66	1.11	18.27	8.01	2.59	14.37	100
Rahania	SCs	40.37	7.76	8.05	7.35	7.18	29.29	100
	STs	0	-	22.22	33.33	-	44.44	100
	OBCs	50.85	3.93	5.96	1.35	10.36	27.54	100
	OTH	67.78	1.96	-	0.79	3.93	25.54	100
	ALL	45.6	5.53	7.02	4.94	8.24	28.67	100
Chudamani	SCs	23.41	6.51	11.98	18.58	9.47	30.05	100
	STs	-	-	-	-	-	-	0
	OBCs	26.19	2.65	20.77	33.86	-	16.53	100
	OTH	54.42	15.24	3.05	23.93	3.35	-	100
	ALL	32.35	7.63	12.29	24.58	5.02	18.13	100

Sources: Field Survey, 2016,

Appendix 4.29: Percentage of assets composition to total assets of the households.

Social Groups	Kanikapada			Mukundapur			Rahania		
	Necessary assets	Livestock assets	Agriculture assets	Necessary assets	Livestock assets	Agriculture assets	Necessary assets	Livestock assets	Agriculture assets
SCs	68.14	31.66	0.20	43.12	51.57	5.31	76.32	17.18	6.50
STs	93.53	3.15	3.31	47.72	50.52	1.76	87.32	9.35	3.33
OBCs	91.65	6.66	1.68	79.11	17.77	3.11	90.93	6.72	2.35
OTH	84.64	14.34	1.02	79.82	15.16	5.02	66.46	31.79	1.75
ALL	85.59	12.86	1.55	69.69	26.56	3.75	83.78	12.35	3.87
Social Groups	Chudamani			All villages					
	Necessary assets	Livestock assets	Agriculture assets	Necessary assets	Livestock assets	Agriculture assets			
SCs	81.03	14.46	4.51	74.88	20.20	4.91			
STs	-	-	-	76.11	21.12	2.75			
OBCs	76.06	21.78	2.16	85.39	12.26	2.34			
OTH	56.00	36.29	7.70	75.09	21.28	3.61			
ALL	77.19	19.00	3.81	79.76	16.80	3.42			

Sources: Filed Survey, 2016.

Appendix 4.30: Average amount of loan and rate of interest in different categories of informal sector loan

Name of villages	Social groups	Money Lender		Rich Farmers		Private Companies		Friend & Relatives		Input Traders		Other	
		Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest	Average loan	Rate of interest
Kanikapada	SCs	4250	5.67	10000	4	10000	5	7800	3.25	2813	4.5	-	-
	STs	18333	3	8000	5	22750	0.98	13000	4.8	21000	5	-	-
	OBC	36500	4.42	11500	5	28091	1	27500	4	10000	5	30800	4.66
ALL	OTH	16200	3.4	-	-	21400	1	10000	1	4000	5	13500	4.66
	ALL	23058	4.35	10200	4.6	24320	1.15	12600	3.43	6542	4.67	27917	4.66
	SCs	30786	3.38	10000	3	26875	1.52	17500	2.78	5075	3.75	16200	2.25
Mukundapur	STs	22667	3.67	7000	4	6000	4	-	-	9825	4.25	16500	2.1
	OBC	39375	3.42	20000	3	39917	0.98	17500	3.17	30000	3	25083	1.07
	OTH	56800	3	-	-	19000	1.07	65000	3	-	-	19000	1.92
ALL	ALL	36930	3.38	11750	3.25	31040	1.29	24286	2.98	8454	3.85	20333	1.7
	SCs	26615	4.65	14778	4.44	17250	1.11	25200	4.6	17571	2.97	22818	1.25
	STs	-	-	-	-	20000	1.09	30000	5	-	-	20000	1.2
Rahania	OBC	41350	4.25	21333	4	19400	1.02	7333	4.33	28083	3	28000	1.03
	OTH	17250	4.25	4000	5	-	-	1600	5	8000	5	17333	0.93
	ALL	30685	4.44	15462	4.38	18214	1.08	17960	4.6	21393	3.13	24233	1.15
Chudamani	SCs	18357	3.07	8938	3.5	21917	1.8	22667	2.11	20800	2.89	30000	1.27
	STs	-	-	-	-	-	-	-	-	-	-	-	-
	OBC	16500	3.17	10000	3	26167	0.87	25600	3.3	-	-	20833	1.17
ALL	OTH	35700	3.5	33333	3.33	20000	2.17	26167	2.67	7333	3	-	-
	ALL	22556	3.22	14731	3.38	23731	1.4	24680	2.72	15750	2.93	26765	1.23

Sources: Field Survey, 2016.

Appendix: 5.1: Descriptive statistics average nominal wages of workers in rural Odisha and India in 2011-12 and 2004-05

Social Groups	Odisha (2011-12)								
	Casual Labour			Casual agriculture labour			All Labour*		
	Min	Max	SD	Min	Max	SD	Min	Max	SD
STs	30	240	37.78	30	170	29.45	30	1361	73.27
SCs	21	357	37.76	23	211	38.34	21	1382	80.32
OBCs	40	250	40.79	45	220	37.47	21	1071	127.08
OTH	50	246	36.32	50	190	28.62	21	1714	173.5
ALL	21	357	39.42	23	220	35.47	21	1714	116.24
India (2011-12)									
STs	0	2143	50.23	0	430	44.18	0	5029	132.99
SCs	5	5000	71.1	14	600	55.62	5	5000	121.69
OBCs	14	2857	76.45	14	1000	55.82	0	5981	157.17
OTH	0	857	69.99	0	857	50.22	0	6660	245.7
ALL	0	5000	71.47	0	1000	54.23	0	6660	167.57
Odisha (2004-05)									
STs	10	100	13.37	12	70	12.31	10	416	29.18
SCs	7	168	18.62	7	143	17.96	7	400	45.26
OBCs	7	130	18.07	12	100	13.63	7	600	71.77
OTH	10	130	18.99	19	70	12.92	10	714	82.56
ALL	7	168	17.28	7	143	15.07	7	714	58.81
India (2004-05)									
STs	2	3000	50.17	2	1818	16.87	2	3000	66.78
SCs	4	571	25.65	4	343	20.46	3	2143	50.76
OBCs	0	650	31.04	4	459	20.81	0	1457	69.26
OTH	3	414	28.4	3	300	19.7	1	2500	123.48
ALL	0	3000	32.75	2	1818	20.12	0	3000	78.84

Sources: Unit level data from 68th NSSO 2011-12 *indicate when we calculate all labour taking RW/SE also. So maximum wages per day much higher we find

Appendix 5.2: Without log average wages and decomposition result of casual labour rural areas of Odisha in 2011-12

Components of Decomposition	SC_OTH				ST_OTH			
	Re-1	Re-2	Re-3	Odisha	Re-1	Re-2	Re-3	Odisha
group_1	140.97	104.71	118.45	132.51	140.97	104.71	118.45	132.51
group_2	140.56	112.44	96.9	121.72	146.26	91.32	109.64	104.43
Total Difference (TD)	0.41	-7.72	21.55	10.79	-5.28	13.4	8.81	28.09
Endowments (E)	2.16	-2.6	13.23	2.93	-11.36	8.33	7.54	5.32
Coefficient (C)	-1.66	-10.82	25.82	8.96	-11.66	-0.21	-13.1	27.88
Interaction (U)	-0.09	5.7	-17.5	-1.1	17.73	5.27	14.36	-5.11
Raw Differential (R=E+C+U)	0.41	-7.72	21.55	10.79	-5.29	13.39	8.8	28.09
Adjusted Differential (D=C+U)	-1.75	-5.12	8.32	7.86	6.07	5.06	1.26	22.77
Endowment as % (E/R)	526.83	33.68	61.39	27.15	214.74	62.21	85.68	18.94
Discrimination as % (D/R)	-426.83	66.32	38.61	72.85	-114.74	37.79	14.32	81.06
Components of Decomposition	SC_HC				LC_HC			
	Re-1	Re-2	Re-3	Odisha	Re-1	Re-2	Re-3	Odisha
group_1	140.57	112.13	118.1	124.54	140.57	112.13	118.1	124.54
group_2	140.56	112.44	96.9	121.72	141.22	100.3	106.27	112.6
Total Difference (TD)	0.01	-0.3	21.2	2.82	-0.66	11.84	11.83	11.95
Endowments (E)	2.61	-1.07	3.4	-1.13	1.17	-1.63	-0.09	0.23
Coefficient (C)	-2.44	0.24	14.86	2.9	-3.97	11.3	10.16	11.27
Interaction (U)	-0.16	0.53	2.94	1.05	2.14	2.17	1.76	0.44
Raw Differential (R=E+C+U)	0.01	-0.3	21.2	2.82	-0.66	11.84	11.83	11.94
Adjusted Differential (D=C+U)	-2.6	0.77	17.8	3.95	-1.83	13.47	11.92	11.71
Endowment as % (E/R)	26100	356.67	16.04	-40.07	-177.27	-13.77	-0.76	1.93
Discrimination as % (D/R)	-26000	-256.67	83.96	140.07	277.27	113.77	100.76	98.07

Note: Unit level data from 68th (2011-12) of NSSO. SC-scheduled caste, ST-scheduled tribe, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number indicate advantage to advantage to forward caste and a negative number indicate advantage to lower caste. Region-1, Region-2, Region-3. Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs.

Appendix 5.3: Gender wise (without log) average wages (Rs) and decomposition result of casual labour rural areas of Odisha in 2011-12

Components of Decomposition	SC-OTH		ST-OTH		SC-HC		LC-HC	
	M	F	M	F	M	F	M	F
group_1	137.83	79.16	137.8	79.16	131.6	92.07	131.6	92.069
group_2	128.2	92.269	108.2	89.22	128.2	92.27	117.8	90.586
Total Difference (TD)	9.6241	-13.11	29.61	-10.06	3.428	-0.2	13.86	1.4833
Endowments (E)	0.3058	9.3075	1.793	14.71	-1.66	-5.34	-0.21	-1.468
Coefficient (C)	9.6357	-11.33	31.27	-3.272	3.487	-11.7	12.9	-0.243
Interaction (U)	-0.317	-11.08	-3.45	-21.5	1.605	16.84	1.16	3.1944
Raw Differential (R=E+C+U)	9.6242	-13.1	29.61	-10.06	3.428	-0.2	13.86	1.4833
Adjusted Differential (D=C+U)	9.3184	-22.41	27.82	-24.77	5.092	5.139	14.06	2.9515
Endowment as % (E/R)	3.1772	-71.04	6.055	-146.2	-48.5	0	-1.49	-98.98
Discrimination as % (D/R)	96.823	171.04	93.94	246.2	148.5	0	101.5	198.98

Sources: Unit level data from 68th NSSO 2011-12 Note: M-Male, F-Female, Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs.

Appendix 5.4: Gender wise (without log) average wages (Rs) and decomposition result of casual agriculture labour in rural Odisha in 2011-12.

Components of Decomposition	SC-OTH	ST-OTH	SC-HC		LC-HC	
	Male only	Male only	Male	Female	Male	Female
group_1	124.98	124.98	123.87	78.50	123.87	78.50
group_2	118.54	90.15	118.54	88.68	102.79	82.68
Total Difference (TD)	6.44	34.83	5.34	-10.19	21.08	-4.18
Endowments (E)	-7.72	-0.42	-8.51	-9.67	-3.10	1.54
Coefficient (C)	5.30	32.57	4.69	-5.39	20.73	-2.83
Interaction (U)	8.86	2.68	9.15	4.88	3.45	-2.89
Raw Differential (R=E+C+U)	6.44	34.83	5.34	-10.19	21.08	-4.18
Adjusted Differential (D=C+U)	14.16	35.25	13.84	-0.51	24.18	-5.72
Endowment as % (E/R)	-119.90	-1.21	-159.44	94.96	-14.71	-36.72
Discrimination as % (D/R)	219.90	101.21	259.44	5.04	114.71	136.72

Note: Unit level data from 68th (2011-12) of NSSO. SC-scheduled caste, ST-scheduled tribe, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes, (a) A positive number indicate advantage to advantage to forward caste and a negative number indicate advantage to lower caste. Region-1, Region-2, Region-3. Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs.

Appendix 5.5: Without log average wages and decomposition result of casual agriculture labour in rural areas of Odisha in 2011-12.

Components of	SC-OTH			ST-OTH			SC-HC			LC-HC			
	Re-1	Re-3	Odisha	Re-3	Odisha	Re-1	Re-2	Re-3	Odisha	Re-1	Re-2	Re-3	Odisha
Decomposition													
group_1	127.24	95.96	118.09	95.96	118.09	132.39	97.19	106.94	115.12	132.39	97.19	106.94	115.12
group_2	134.61	72.50	110.64	91.15	87.07	134.61	99.31	72.50	110.64	135.81	83.75	86.21	97.81
Total Difference (TD)	-7.37	23.46	7.45	4.81	31.01	-2.21	-2.12	34.44	4.48	-3.41	13.44	20.74	17.31
Endowments (E)	0.55	11.74	-6.74	0.11	2.16	-2.56	-2.25	8.93	-8.43	-4.10	-1.59	-0.70	-1.46
Coefficient (C)	-13.74	-27.4	8.04	3.10	29.25	-3.36	-5.39	40.46	4.03	-5.26	14.31	14.99	17.30
Interaction (U)	5.82	39.18	6.15	1.60	-0.40	3.71	5.51	-14.96	8.88	5.95	0.72	6.44	1.47
Raw Differential (R=E+C+U)	-7.37	23.46	7.45	4.81	31.01	-2.21	-2.12	34.44	4.48	-3.41	13.44	20.74	17.31
Adjusted													
Differential (D=C+U)	-7.91	11.72	14.19	4.70	28.85	0.35	0.13	25.50	12.91	0.69	15.03	21.43	18.77
Endowment as % (E/R)	-7.46	50.04	-90.47	2.25	6.97	115.80	105.90	25.94	-188.1	120.14	-11.80	-3.35	-8.43
Discrimination as % (D/R)	107.46	49.96	190.47	97.75	93.03	-15.80	-5.90	74.06	288.17	-20.14	111.80	103.35	108.43

Note: Unit level data from 68th (2011-12) of NSSO. SC-scheduled caste, ST-scheduled tribe, HC-higher caste summation of OBCs and Others, LC-lower caste is summation of scheduled caste and scheduled tribes. (a) A positive number indicate advantage to advantage to forward caste and a negative number indicate advantage to lower caste. Region-1, Region-2, Region-3. Groups-1 indicate the second name of the pair and group 2 is the first pairs name. Like SC-OTH cases group_1 is OTH caste and groups_2 is SCs.

Appendix 6.3: Village and Social Groups wise percentage of casual agriculture labour getting MEAL for agriculture work:

Name of Village & Social Groups	Within Village			Outside Village		
	Tiffin	Tiffin & Lunch	Nothing else	Tiffin	Tiffin & Lunch	Nothing else
Taking all Villages						
Kanikapada	99.1	0.9	0.0	84.2	15.8	-
Mukundapur	24.0	4.2	71.9	66.7	-	33.3
Rahania	72.9	0.0	27.1	94.1	-	5.9
Chudamani	96.5	3.5	0.0	50.0	50.0	-
All Villages	73.7	2.1	24.2	79.3	8.6	12.1
Taking all Social Groups						
SCs	73.9	2.5	23.6	82.8	-	17.2
STs	52.0	1.3	46.7	87.0	13.0	-
OBCs	86.0	2.8	11.2	40.0	40.0	20.0
OTH	81.1	-	18.9	-	-	100
ALL	73.7	2.1	24.2	79.3	8.6	12.1

Sources: Field Survey 2016. Note: The percentage CAL getting meal like Breakfast or Tiffin (i.e., biscuit or cake), Tiffin & lunch and nothing is hundred percentage.

Appendix 6.4: Village and Social Groups wise percentage of agriculture labour respondent about the query of wage rate increase or decrease for agriculture work

Name of Village & Social Groups	Within Village			Outside Village		
	Same wages compare to last year	Less than last Year (fall)	More than Last Year (rise)	Same wages compare to last year	Less than last Year (fall)	More than Last Year (rise)
Taking all Villages						
Kanikapada	61.1	12.4	26.5	42.1	5.3	52.6
Mukundapur	99.0	-	1.0	72.2	27.8	-
Rahania	68.2	2.4	29.4	64.7	-	35.3
Chudamani	80.2	-	19.8	-	50.0	50.0
All Villages	76.6	4.2	19.2	55.2	13.8	31.0
Taking all Social Groups						
SCs	77.6	2.5	19.9	69.0	6.9	24.1
STs	76.0	4.0	20.0	39.1	17.4	43.5
OBCs	73.8	8.4	17.8	40.0	40.0	20.0
OTH	81.1	-	18.9	100	-	-
ALL	76.6	4.2	19.2	55.2	13.8	31.0

Sources: Field Survey 2016, Note: The percentage CAL responding wages increase or decreasing or stay constant in compare to last year is hundred percentage.

Appendix 6.5: Descriptive statistics of variable in wage determination of casual labour in OLS model of 2016.

Variables	Description of Variables	CAL		CNAL		BOTH	
		Mean	StdDev	Mean	StdDev	Mean	StdDev
logwivcal_WR	Logarithm of daily wage rate per days (in Rs)	5.4949	0.2216	5.5975	0.2644	5.5351	0.1981
age	Age in years	44.2330	12.5834	43.6565	12.3527	43.8798	12.2487
age2	Age square (in years)	2114.4840	1147.6270	2058.0890	1117.2930	2075.0230	1107.1120
hh_size	Household size (number in size of family member)	5.4817	1.9328	5.6514	2.1027	5.5132	1.9244
sexdmy1	If the individual workers or labour belong to Male = 1, 0 otherwise	0.9346	0.2476	0.9491	0.2201	0.9472	0.2239
edu_attadmy1	If the individual labour Illiterate = 1, 0 other wise	0.1963	0.3977	0.1985	0.3994	0.2082	0.4066
edu_attadmy2	If the individual educate or completed up to primary = 1, 0 otherwise	0.3534	0.4787	0.3282	0.4702	0.3431	0.4754
edu_attadmy3	If the individual educate or completed middle = 1, 0 otherwise	0.1335	0.3406	0.1323	0.3393	0.1349	0.3421
edu_attadmy4	If the individual educate or completed high school = 1, 0 otherwise	0.2487	0.4328	0.2519	0.4347	0.2463	0.4315
tot_formloan	The individual households total formal loan (in Rs.) amount	9938.4290	20478.2400	9750.5850	20427.4000	9469.1500	20551.7000
tot_infoloan	The individual households total informal loan (in Rs.) amount	26673.0400	35799.4100	26109.6700	34166.1200	26264.2200	35075.5000
agriland_ownd	The individual households total Agri. Land own (in acre)	0.3106	0.5566	0.2912	0.4222	0.2684	0.4006
castedmy1	If the individual belong to Scheduled Caste (SCs) = 1, 0 otherwise	0.4215	0.4944	0.4275	0.4953	0.4428	0.4974
castedmy2	If the individual belong to Scheduled Tribe (STs) = 1, 0 otherwise	0.1963	0.3977	0.1730	0.3788	0.1965	0.3979
castedmy3	If the individual belong to Other Backward Caste = 1, 0 otherwise	0.2853	0.4522	0.3053	0.4611	0.2698	0.4445
wivcal_AvWr	The individual workers average length of working hours (in hours)	6.6466	1.2253	6.9048	1.1776	6.7750	1.0674
Total_obse	Total Observation (in number)	382		393		341	

Sources: Field Survey 2016, Note: Reference Category: of Gender-Female, Education-More than Matric or high school, Caste dummy-OTH (other caste) as Reference.

Appendix 6.6: Descriptive statistics of variable in wage determination of casual agriculture labour in OLS model of 2011-12.

Variables	ST		SC		OBC		OTH		ALL	
	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.
Log wage	4.4151	0.3294	4.6278	0.4252	4.6634	0.3286	4.7389	0.2792	4.5666	0.3759
age	35.2763	11.9209	36.6974	11.0808	38.3179	12.3339	39.1581	13.2188	36.7618	11.9420
age2	1385.5680	936.8508	1468.3580	850.1754	1619.0020	981.9057	1703.3670	1067.5290	1493.6890	939.1289
hh_size	4.8089	1.6132	4.4654	1.9931	4.0303	1.3726	4.2445	1.4311	4.4809	1.6971
sexdmy1	0.7582	0.4296	0.7308	0.4456	0.7827	0.4143	0.8635	0.3481	0.7662	0.4238
gen_edudmy1	0.4783	0.5012	0.5078	0.5022	0.5303	0.5014	0.3906	0.4946	0.4887	0.5005
gen_edudmy2	0.2613	0.4408	0.1755	0.3821	0.2667	0.4443	0.3721	0.4900	0.2481	0.4325
land_own	273.5665	496.4099	91.7719	157.1501	186.8910	248.6622	142.9839	236.4229	184.6217	351.2214
regiondmy1	0.0676	0.2520	0.5042	0.5023	0.2539	0.4372	0.7721	0.4253	0.3154	0.4653
regiondmy2	0.3837	0.4879	0.2622	0.4419	0.4959	0.5023	0.0560	0.2332	0.3348	0.4725
hh_typedmy1 (SEA)	0.1207	0.3269	0.0456	0.2096	0.0429	0.2036	0.1321	0.3433	0.0828	0.2759
hh_typedmy2 (SENA)	0.0412	0.1993	0.0148	0.1213	0.0883	0.2850	0.0397	0.1980	0.0428	0.2027
hh_typedmy4 (CAL)	0.7448	0.4375	0.7803	0.4160	0.7271	0.4475	0.7429	0.4431	0.7517	0.4325
hh_typedmy5 (CNAL)	0.0886	0.2851	0.1555	0.3641	0.1216	0.3283	0.0798	0.2747	0.1150	0.3194
No of observation	148		109		110		37		404	

Sources: Unit level calculation from 68th NSSO, 2011-12. Note: it is calculate on taking log wages per days of casual agriculture labour, age-age in years, age2- age square, hh_size- household size in number of family member, sexdmy1- if the individual work belong to male otherwise 0 (female reference category), gen_edudmy1-if the individual are illiterate = 1 otherwise 0, gen_edudmy2-if the individual literate up to primary =1 otherwise 0 (more than primary reference category), land_own- land ownership of the individuals family or household in acre, regiondmy1- if the region is coastal Odisha =1 otherwise 0, regiondmy2- if the region is southern =1 otherwise 0 (northern reference category), hh_typedmy1- if the households type is self employed in agriculture 1 otherwise 0, hh_typedmy2- if the households type is self employed in non-agriculture =1 otherwise 0, hh_typedmy4- if the households type is casual agriculture labour =1 otherwise 0, hh_typedmy5- if the households type is casual non agriculture labour =1 otherwise 0.

Appendix 7.1: Determinants of Land Markets discrimination perception

Determinants of Land Markets discrimination perception		V-1	V-2	V-3	V-4	All
Are the HCs buy land for house making in your localities ?	Yes	27.1	18.0	53.7	63.6	39.6
	No	72.9	82.0	46.3	36.4	60.4
In the road side house, suppose you want to used it for rented purpose, Do the HC take for living? If no, Which caste cases more ?	All HC deny to stay	45.8	24.0	61.1	70.4	49.8
	Maximum HC deny to stay	5.1	2.0	11.1	13.6	7.7
	Some HC (specific) deny to stay	13.6	26.0	9.3	6.8	14.0
	Not chance to stay in our localities	35.6	48.0	18.5	9.1	28.5
If you prefer to buy homestead land in HCs locality for living purpose most probably who are allowed/ permission to stay in their localities?	All HC allowed	16.7	28.2	33.3	47.4	28.9
	Some specific HC allowed to stay	61.1	48.7	29.6	0	40.5
	Not chance to stay there	22.2	23.1	37.0	52.6	30.6
What you think why you are not able to buy homestead land or live in their locality ?	HC charge higher price to buy the land in their localities	5.1	12.0	20.4	22.7	14.5
	HC restricted to sell other than own caste	27.1	10.0	29.6	36.4	25.6
	Only SCs are restricted to buy in HC locality	13.6	26.0	13.0	13.6	16.4
	We are unwilling to buy or lives in HC locality due to HC people living	37.3	46.0	14.8	0.0	25.6
	We are not interested to stay due to may create problem in future (quarrel)	15.3	6.0	22.2	27.3	17.4
	May not be cooperative in our emergency	1.7	0.0	0.0	0.0	0.5
Do you think a bureaucrats find house on rented although he is a dalits.	Yes easily get	66.1	50.0	59.3	59.1	58.9
	No whatever the position (no get due to lower caste) asked about the sub caste also	13.6	36.0	29.6	34.1	27.5
	Maximum people today allow to them instead of lower caste (no such untouchable seen today)	6.8	6.0	7.4	6.8	6.8

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani). Y- Yes, N-No and C- Can't say.

Appendix 7.2: Land Markets discrimination perception

Land Markets discrimination perception		V-1	V-2	V-3	V-4	All
If you buy Agri. Land from HCs, Is it long distance from village?	Yes	86.4	94.0	77.8	72.7	83.1
	No	13.6	6.0	22.2	27.3	16.9
If you buy Agri. Land from HCs, Is it away from irrigation area?	Yes	84.7	92.0	66.7	59.1	76.3
	No	15.3	8.0	33.3	40.9	23.7
If you buy Agri. Land from HCs, Is it away from HCs land ?	Yes	61.0	84.0	63.0	59.1	66.7
	No	39.0	16.0	37.0	40.9	33.3
If you buy Agri. Land from HCs, Is it less productivity land ?	Yes	66.1	84.0	61.1	59.1	67.6
	No	33.9	16.0	38.9	40.9	32.4
Are you to be denied to buy land from HCs surrounded agriculture land ?	Yes	72.9	68.0	42.6	29.5	54.6
	No	27.1	32.0	57.4	70.5	45.4
Are they (HCs) demand high rent for land cultivation ?	Yes	78.0	62.0	81.5	86.4	76.8
	No	22.0	38.0	18.5	13.6	23.2
When you buy HC charge high rate and when sell HC offer low rate for land, if yes, then which land cases it is happened more ?	Agriculture land cases more	3.4	18.0	5.6	6.8	8.3
	Homestead land cases more	65.5	52.0	46.3	45.5	52.9
	Both land cases more	31.0	30.0	48.1	47.7	38.8

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani). Y- Yes, N-No and C- Can't say.

Appendix 7.3: Discrimination in day to day Life.

Determinants of Practice Untouchables		V-1	V-2	V-3	V-4	All
Do you think HCs person can buy grocery items from a SCs person shops (Y/N)	Yes	16.9	8.0	3.7	-	7.7
	No	83.1	92.0	96.3	100	92.3
If yes buy the which type of items they buy from SCs person shop?	Some specific items	61.0	82.0	74.1	72.7	72.0
	All items buy	5.1	2.0	11.1	13.6	7.7
	Only packed item buy	27.1	14.0	3.7	-	12.1
	Only not taking the liqius type item like oil, Gudo, sugar, salt etc	6.8	2.0	11.1	13.6	8.2
Can you enter the HCs home means into baranda (Y/N)	Yes	25.4	10.0	3.7	-	10.6
	No	74.6	90.0	96.3	100	89.4
Do you handshake/hug of HCs of your friends	Yes	27.1	46.0	40.7	43.2	38.6
	No	71.2	54.0	59.3	56.8	60.9
	Can't say	1.7				0.5
If yes you are invited, where are sit?	Any where we can sit no caste bar	13.6	20.0	27.8	29.5	22.2
	We have to seat with our groups which separate from the seat of HC	86.4	80.0	72.2	70.5	77.8
If some people work as sweeper/scavenger How the HCs treat with them	Behave very badly like animal (even not allowed to enter the live)	61.0	46.0	64.8	70.5	60.4
	Do not touch them	15.3	28.0	18.5	20.5	20.3
	Gently behave like behave to other	23.7	26.0	16.7	9.1	19.3
Are you freely got a house for rent in HCs home (Y/N/C)	Yes	5.1				1.4
	No	89.8	96.0	88.9	86.4	90.3
	Can't say	5.1	4.0	11.1	13.6	8.2

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

Appendix 7.4: Practice of Untouchable

Determinants of Practice Untouchables		V-1	V-2	V-3	V-4	All
If a HCs person touch to lower caste Is the HCs person bath (code)	Yes all (both male female children bath)	22.0	4.0	22.2	27.3	18.8
	No (now a day not bath)	45.8	62.0	38.9	29.5	44.4
	If the HCs is female/girl then must be bath	32.2	34.0	37.9	43.2	36.8
This is more in cases in which level person?	Maximum HCs treated such feeling	8.5	6.0	3.7		4.8
	Not such activities found today	27.1	18.0	25.9	27.3	24.6
	Not this type of custom today exist	6.8	6.0	7.4	6.8	6.8
	Only adult female cases seen	57.6	70.0	63.0	65.9	63.8
If you work in a HCs home, Have you to be request too much for your wage (code)	Yes we have to beg so many time like a to a king	64.4	84.0	63.0	59.1	67.6
	No they give on that days after work	18.6	4.0	22.2	27.3	17.9
	They create problem on wages (strongly agree)	5.1	4.0	11.1	13.6	8.2
	No such problem arises (weakly)	11.9	8.0	3.7		6.3
Do you think SCs female are more discriminate than SCs male.	Yes than male individual	74.6	78.0	85.2	86.4	80.7
	No such type gender biasness	6.8	2.0	11.1	13.6	8.2
	All are equally discriminate (both)	18.6	20.0	3.7	-	11.1
If yes female are more, how?	If the SCs female walk in road they go far away	12.3	31.9	25.9	29.5	24.3
	If LCs female stand they are stand far away	75.4	46.8	53.7	56.8	58.9
	If the LCs female tough HCs female they are bathe and enter to their home	12.3	21.3	20.4	13.6	16.8
Do you think a SCs person allow to work in nearby hotel/dhabas.	Yes	25.4	28.0	11.1		16.9
	No	74.6	72.0	88.9	100	83.1
If yes What type of work do the SCs person.	Anything which he can know (no caste bar)	32.2	24.0	50.0	56.8	40.1
	Only washing plate and sweeping	45.8	46.0	40.7	36.4	42.5
	Work other than direct touch to food	20.3	30.0	9.3	6.8	16.9
	Cooking and serving water	1.7				0.5

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

Appendix 7.5: Practice of Untouchable in Public Sphere (like in MDMPY)

Determinants of Practice Untouchable		V-1	V-2	V-3	V-4	All
Do you get a MDMPY cooking job in school (Y/N)	Yes	6.8	2.0	13.0	13.6	8.7
	No	93.2	98.0	87.0	86.4	91.3
In a school if SCs ladies is a cooker, Are the HCs child eat Mid-Day-Meal (Y/N)	Yes	11.9	8.0	5.6		6.8
	No	88.1	92.0	94.4	100	93.2
If no, why not eat?	They are rich family child/student	1.7	4.0			1.4
	Feel untouchable (due to lower caste ladies cooking)	76.3	72.0	88.9	100	83.6
	Not good quality food provide in school by govt.	20.3	24.0	11.1		14.5
	Unclean utensils	1.7				0.5
If the SCs ladies not cook, What type work she is doing.	Never become a lower caste female or ladies get the job for as cooker in the school as MDMP	15.3	48.0	13.0	6.8	20.8
	If she get the job only wash the plate or utensils	37.3	18.0	31.5	36.4	30.9
	Outside work other than food cooking (even do not cut vegetable or tough water)	45.8	32.0	42.6	43.2	41.1
	No caste matter anything she will be doing	1.7	2.0	13.0	13.6	7.2
Do you think SCs are more untouchable than Muslims.	Yes	45.8	40.0	77.8	93.2	62.8
	No	54.2	60.0	22.2	6.8	37.2
Is the caste based discrimination more in across or within social groups.	Across the social groups more	50.8	38.0	42.6	36.4	42.5
	Within the social groups more	3.4	12.0	7.4	6.8	7.2
	Both of them (across and within social group)	45.8	50.0	50.0	56.8	50.2
If discrimination more in within or across SGs then which sub caste more.	Pano	30.5	44.0	29.6	29.5	33.3
	Dhoba	22.0	10.0	29.6	34.1	23.7
	Haddi	16.9	10.0	3.7		8.2
	Domo	3.4				1.0
	Brahamin	8.5	2.0	11.1	13.6	8.7
	Karan	3.4	2.0	11.1	13.6	7.2
	All LCs (only SCs)	15.3	32.0	14.8	9.1	17.9

Sources: Field Survey, 2016 Note: V-1 (Kanikapada), V-2 (Mukundapur), V-3 (Rahania), V-4 (Chudamani).

APPENDIX

PHOTOGRAPHS FROM THE FIELD SURVEY



Dalit Casual Labour Standing in front of his home, Dehudi Sahi, Kanikapada, Jajpur.



Main occupation of Dalits Households *Sira* making from bamboo. Dehudi Sahi, Kanikapada, Jajpur



A Well for the Dalits in the middle of DehudiSahi, Kanikapada, Jajpur



Daily wage Labour from OBC standing in front of his home, SutarSahi, Kanikapada, Jajpur.



Migrant Labour, works in Kolkata. Mukundapur, Jena Sahi, Jajpur.



From Self-employed to Wage Labourer: Dalit Youth, HatoSahi, Mukundapur, Jajpur.



Schedule Tribe Casual Labour standing in front of his home, Mukundapur, Jajpur



Electricity Lines are there but she has no electricity at home. Dalit Women, Mukundapur, Jajpur.



Casual Labour doing business for some days after agriculture work, Rahania, Bhadrak.



Work during the lean season: one Individual carrying the Grass for feeding their cows. Rahania, Bhadrak.



Rickshaw puller standing in front of his home, Rahania, Bhadrak.



Field Survey at Rahania, Bhadrak.



Boat Ready to go for catch the fish near Jati, Chudamani, Bhadrak



Field Survey, Chudamani, Bhadrak.