

# **Managing the Commons: A Need for New Institutions**

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**MASTER OF PHILOSOPHY**

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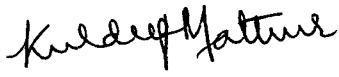
**CERTIFICATE**

This is to certify that the dissertation entitled *Managing the Commons: A Need for New Institutions* submitted by Aseem Prakash in partial fulfilment of the requirements for the award of the degree of Master of Philosophy of this University has not been submitted for any other degree of this or any other university. This is his own work.

We recommend that this dissertation be placed before the examiners for evaluation.

  
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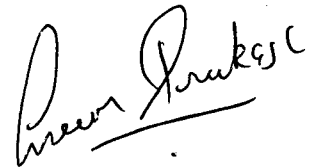
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A handwritten signature in black ink, appearing to read 'Aseem Prakash', written in a cursive style with a horizontal line underneath.

Aseem Prakash

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## CHAPTER I

### INTRODUCTION

The present era has witnessed a significant rise in the concern - both, at the governmental as well as the societal level - for the degradation and consequent depletion of our natural resources. The world is seen in the throes of a cataclysmic crisis in which an artificially induced 'greenhouse effect' hangs over humanity like a climatic sword of Damocles. As a result, environmental matters now occupy a prime position in the political agenda of almost every country. The ruin of environment is now recognised as 'clear and present danger' and is now a matter of popular 'pre-occupation'. But, the scope of this study is very limited. It endeavours to explore the institutional arrangements required to manage the natural resources at a micro level in India. What distinguishes these local level resources from larger ecosystem is that

- (a) They are susceptible of appropriation by relatively small units.
- (b) They can lead to rivalry in consumption in so far as yields of these resources are clearly perceived as subtractable [Das Gupta:1983].

It would be useful at this juncture to explain the technical terms and concepts associated with these local level resources which have come to be known as Common Property Resources, Common Pool Resources or Commons in the present-day literature. At the very outset, it would be useful to explain the two key concepts involved: 'property' and 'rights'. It is necessary to define these

two concepts because much of the ruin of Common property resources is due to ambiguity

Bromley [1991:2] points out that 'property is a benefit (or income) stream and a property right is a claim to a benefit stream that the state will agree to protect through the assignments of duties to others who may covet, or somehow interfere with the benefit stream'. Therefore, in this sense property rights connotes a social relation having claim over others/ State and corresponding duties. Depending upon the nature of rights to a resource/ property/ goods, we can conceive of two broad categories; namely, public and private.

The right to provide means that the owners can exclude others from appropriating the benefits emanating from it. This is recognised both legally and socially. Public property on the other hand, implies that no one can be excluded from appropriating the benefits derived from it and is indivisible. 'Non-excludability implies free access to all and indivisibility implies that benefits are not subtractive but of the nature of collective consumption [Chopra:1990:23]. Chopra further argues that this two-fold distinction given above in respect of public goods does not always hold true. Some goods or resources may possess the property of non-excludability even when the benefits accruing from them are subtractive. They are called Common Property [Chopra:1991:24]. For instance, ground water, grazing lands, etc. Wade also [1987] argues in a similar manner when he points out that in the continuum of property rights, common property lies in the middle of public and private, since common property resources are held by a number of people in conjunction with one another.

In the present-day literature, the conceptual category of Common Property Resources, Common Pool Resources or Commons are synonymously used to explain any resources which are collectively owned by an identifiable community, de-facto, if not de-jure (e.g., land, water, air, plants, fish). But the nature of this study demands that a clear distinction be drawn between Common Pool Resources (CPRs) and Common Property Resources (CPRI ); since the concern of this study stems from the former.

Under Common Property, there exist well-defined property rights and therefore, the rights of exclusion is assigned to a well-defined group; whereas, under Common Pool Resources there lies an ambiguity concerning property rights and hence, right of inclusion is granted to anyone who wants to use the resource. As a consequence, CPR and CPRI are also analytically distinct because the very concept of common property supposes the existence of a well-defined group, the agents are now allowed to interact strategically with each other. This does not hold true for Common Pool Resources.

Under Common Property, the agents do not think that their final outcome is independent of their own individual decision as is the case under Common Pool Resources. They actually expect that their action will induce a particular reaction from the other agents and thereby, affect the collective result. The problem raised by common property can be understood by the following.

Let us consider two herdsmen who must decide on the number of animals to graze on a 'common land'. If each herdsman chooses to have one animal each,



each of them will gain Rs. 5. If however, they both choose to graze two animals each on the common land, these animals might be underfed and may lose much of their economic value. If one herdsman grazes one animal on the field and the other two, their total gains are Rs. 3 and Rs. 6, respectively. Thus, each herdsman has two strategies open to him. Since keeping two animals will fetch him marginally better pay-off, he will choose this as a dominant strategy. This action of one herdsman does not depend on the actions others, whatever the other does, the action he will choose will be the one that will maximise the pay-off. Here lies the 'tragedy of the commons', although, it would be better for both the herdsmen to put one animal on the commons, it is individually rational for each of them to put two animals.

The problem of common pool resources on which this study concentrates faces somewhat different kind of problem due to non-excludability of any individual. The problem can be more lucidly understood by taking the following example into account:

Let us take the example of fishery. Fishing technology is such that the entire stock is divided equally amongst active fishermen. Consider the choice facing the  $n$ th fisherman, The cost of renting a boat is given and is equal to  $P$ . He chooses between not hiring a boat and catching nothing or hiring a boat at a price  $P$  and catch  $S/N$  unit of fish. As we assume that all other costs are negligible, he will decide to hire a boat if  $P < S/N$ . Since all agents have access to the fishing activity (everybody has a right to fish), and there are many agents in the economy, they will enter as long as the average product of fishing exceeds the

price of entry, i.e., the rental price of boat. If a second fisherman enters fishery, the first fisherman's profit will be reduced from  $(S-P)$  to  $(S/2-P)$ . If the number of fishermen go on increasing, not only his profit will dwindle but will also lead to depletion of the stock. But this will not desist any fisherman from fishing operations since there is no way by which by refraining from fishing today, the agents can be assured that in the next period, they will receive the amount of fish they have left untouched, augmented by its natural growth. As a result, every fisherman is forced to follow a myopic rule (by comparing average instantaneous result to the rental price of a boat) even though s/he may well be aware that s/he is contributing to the reduction of the future stock. The problem is simply that there is no way in which he can reap the benefits of restraint. 'The total amount of fish currently caught is independent of the individual decision taken by the participants' [Jean & Jean: 1996:26-8].

Thus, the very nature of Common Pool Resources requires well-managed institution(s) to govern and regulate the use and upkeep of these resources within the exhaustible limit. (A resource is said to be exhaustible if it is used in such a manner that it gets over in a finite time).

An unambiguous definition of management and institutional framework for the same is therefore, required at the very outset.

In this study, by the term 'management' we mean human intervention in a CPR system with a view to restoring, conserving or augmenting it and sustaining its productivity and/ or regulating its use. The intervention could be in the form

of material inputs, creation of institutions or modification of an existing institution. Institutional constraints include what individuals are prohibited from doing and sometimes under what conditions some individuals are permitted to undertake certain activities. These constraints can be either formal or informal. Formal constraints (rules, laws, etc.) and informal constraints (conventions, codes of behaviour, etc.) are types of management techniques.

### **Significance of CPR in India**

Bromley [1986:1] points out that around 80% of the people around the world depend on CPRs for their sustenance (from 5% to 40%). The use of these resources is particularly important for the livelihood of the poor in any developing country, particularly in India. The poor in India collect CPR produces such as firewood, fodder, organic manure, fruits and vegetable, etc free of charge. To an extent, CPR also supports traditional occupations such as art and craft and thus, opens up employment avenues.

Anil Agarwal [1985] in his study lucidly demonstrates the correlation between the depletion of CPRs and the increasing misery of the rural poor. The worst sufferers of this depletion are women and landless labourers. The former suffers because now they are forced to walk many extra kilometres to fetch firewood, fodder and water, besides fulfilling their traditional domestic duties. Landless labourers also face the wrath of this because CPRs are the only means of sustenance to fall back upon during the lean months of the agricultural cycle.

Jodha [1986] estimates that CPRs contribute Rs. 530 to Rs. 830 to the annual household incomes of the rural households in the dry regions.

Chopra [1990:34] indicates that due to the decline in the area and quantity of CPRs (as a result of unregulated use and increase in population) have raised the commercial value of its products. Further, increasing pressure on CPRs makes them prone to further degradation which in turn, intensifies the crises discussed above.

Last but not the least, CPRs like grazing lands protects the crops from the wrath of domestic animals. Besides this, the degradation of CPRs will inevitably, lead to ecological imbalances.

### **What is Wrong with CPRs**

In the distant past, people in India were sensitive to their natural ecosystem and vital natural CPRs were managed and utilised almost on a sustained- yield basis, according to well-defined social norms that respected the known ecological processes and local needs [Gadgil & Guha:1992, Swaminathan:1986].

However, the situation was radically altered when India encountered Christian Europe in general and with the establishment of the British colonial Empire in India, in particular. The mode of resource-use from this period was a radical departure from the past when the natural resources were consumed only at the local level or at the most supplied the near-by town in exchange of non-

food products. The British linked these resources with direct and large-scale, non-local demands of Western Europe.

The colonial intervention in the indigenous system of natural resource management was in the form of complete State control over CPRs. This served the twin objectives of the colonial rulers. firstly, they were able to extract maximum revenue and secondly, requirements of raw materials were fulfilled.

With the dawn of independence, control over natural resources was vested in the Indian State but the colonial institutional framework for natural resource management did not change materially. The result was that the locals got completely alienated from the CPRs. With the increase in population and the growth of economic activities, the natural resource base of the country became poorer and poorer, disruption of ecological processes more and more apart and threat to the life-support systems of millions of poor people dependent on natural CPRs, more and more serious.

This precarious condition is now manifested in the various new social movements in many parts of the country. The major movements being Chipko Movement in the U. P. hills against mass felling of trees, Appiko movement in the South against illegal exploitation of forests, movements against large river valley projects like the Tehri Dam project in U. P. hills, Silent Valley project in Kerala and so on.

These ecological movements adequately reflect the concern of the local population against the threat to their survival posed by indiscriminate and

reckless exploitation of CPRs. The situation now demands a different approach for the management and upkeep of natural CPRs in a sustainable manner. This becomes even more essential when the existing mechanisms have, more or less, failed, besides alienating the users of CPRs. Moreover, privatisation may not always produce the desired outcome because in the CPRs such as fishery, ground-water resources, etc., it will not be technologically and physically feasible.

All these issues will be elaborated upon, elucidated and analysed in this study.

### **Objective of the Study**

This study is about, exploring the kind of institutional arrangement required to manage the Common Pool Resources at a sustainable limit, without ignoring the livelihood constraints of poor. This is necessary because the right to property not only defines the nature of relationship of individual(s)-with the resource, but it also acts as a catalyst for them to fulfil their corresponding duties.

Therefore, with this objective in mind, this study made a literature survey in order to discern the best kind of property regime and consequent institutional arrangement. Thus different regimes are juxtaposed, i.e. , privatisation, nationalism and participatory management. Privatisation was not found suitable because of the existing socio-economic conditions of the country. Further, this regime cannot be implemented for certain resources, for instance, under ground water. Besides privatisation is no guarantee that it will stop over- exploitation.

On the contrary, profit motive can lead to withdrawal of resource units at a unsustainable limit.

Nationalisation or control by the centralised agency type of regime is widely practised in our country. This has resulted in exploitation of the resources at an unsustainable limit, by both the government as well as the people. The former indulges in such practices for commercial purposes and revenue generation. The latter did so because of alienation from the resources. The users got alienated because they lost their traditional rights to collect the items of daily needs. Whenever they were allowed to appropriate the resource unit, they always tend to over exploit because of the ambiguous definition of property rights. In this whole process they almost ignored their 'traditional wisdom' which earlier guided their appropriation of the resources at a sustainable rate.

From the late 1980s, the critique of this kind of model managing the Common Pool Resources started coming which emphasised the need of direct involvement of local people in planning. The literature survey done in this study clearly reflects that participatory institutions are viable option for managing CPRs at a sustainable limit while giving maximum benefit to the poor.

This study in order to take a first hand experience of the participatory model of development took a field study of the Aamwala village in the Dehradun valley of Uttar Pradesh. The village has two self managing institutions –*SWAJAL* and *JALAGAM* -for managing resources crucial to their survival. *Swajal* was formed to bring drinking water through a pipe line to the

village and the role of *Jalagam* was to control deforestation and consequent soil erosion, beside providing fodder and fuel wood in the village.

### **Methodology and Framework of the Field Study**

The field survey was done by taking open-ended interviews of the people using the resources. There were 112 households out of which 41 were interviewed. The emphasis was on a balanced weightage to caste, class and gender. Since the success of any self-governing institution hinges on the degree of empowerment which it provides to its members, this study has adopted the following criteria for evaluating the success of the project.

- Knowledge base of the participants.
- Mobilisation.
- Mechanism to solve social conflicts.

Therefore, this study uses combination of empirical and analytical tools to discern how these participatory institutions operate in practice. It is quite relevant in the present context since participatory planning now constitutes a new and widely embraced orthodoxy. Moreover, it has been made a necessary condition for obtaining funds from the external donors. This model of development is also widely accepted by the Indian government.

The study argues that this kind of externally induced participatory approach to the management of CPRs is able to bring benefits in the short run,



but due to inherent lacunae in the project design, real empowerment and sense of ownership is not witnessed.

## CHAPTER II

### UNDERSTANDING CPR PROBLEMS

It was Garret Hardin (1968) who coined the phrase “Tragedy of Commons” which has now come to symbolise the ruin of environment when a group of individuals use a scarce resource in common. He illustrates the logic of tragedy as follows:

“Picture a pasture open to all. Each herdsman will try to keep as many cattle as possible on the commons... As a rational being each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously he asks. What is the utility to me of adding one more animal to my herd? This utility has one negative and one positive component ... Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. Add, another and another... But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit -in a world that is limited. Ruin is the destruction towards which all men rush, each pursuing his own but interest in a society that believes in the freedom of the commons. Freedom in a common brings ruin to all “(Hardin 1968).

‘This ‘tragedy of Commons’ symbolises the fact when resource unit withdrawn exceeds the sustainable capacity of the resource system. ‘Resource system can be defined as stock variables that are capable under favourable condition of producing a maximum quantity of flow variable without harming

the stock resource itself (Ostrom:1990:31). Examples of this may be fishing grounds, groundwater basins, grazing lands, lakes, forest etc. Resource units are what individuals appropriate or use from resource system (Ostrom: 1990:30).

The primary causes for the increased withdrawal is increase in human and animal population, discovery of new use of CPRs/ or its product, development and availability of new technologies for exploiting the CPR and for processing, transporting and marketing its product, discovery of new markets and launching of new public policies and programmes. The problem may also occur due to decrease in CPRs total supply from the resource system as a result of destruction by man made or natural calamity. Further, if different groups are sharing the same resource system and resource units and their withdrawal exceeds the sustainability limit, a conflict is bound to emerge. This conflict, if takes some violent form will further degrade the available resource system.

Makean (1987:1-23) enumerates the following conditions when CPRs are over-exploited:

- When the perceived private cost of individual(s) of co-operation may exceed the perceived private cost.
- When individual(s) feel that their own contribution to the collective goal is minuscule and would not be missed if withheld,

because, others will contribute enabling them easily to free ride on the contribution of others.

- When individuals have no assurance or certainly that other members of the group will make their contribution (or co-operate) and feel that their lone contribution to the effort would be insufficient to produce the desired result.

To these three reasons we may add:

- When profit motive (higher market price) may dictate an individual/ State to extract resource units over and above the sustainable limit. This is possible when the commodity is scarce or extraction cost is very low but market price is relatively high.

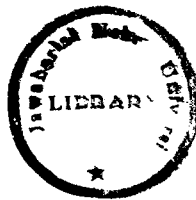
At this preliminary stage, we may argue that CPR problem is not technical solution problem (Hardin:1968 ). A technical solution problem requires a change only in techniques of natural sciences, engineering and technology, but whereas CPR problem in contrast needs a motivated change in human behaviour through education and persuasion.

In this context, this section will discuss various property regimes suggested by different authors backed up by their respective theoretical model to prevent such a tragedy. Due to constraint of time and space, this study will make use of field research of other authors to prove superiority of one kind of property regime over others.



## Privatisation

Private property in the context of natural resource connotes the right and ability to exclude the exercise of those rights by others. This right by definition includes right to exchange, right to lease and bequeath. Private property regime is one of the means for internalising negative externalities (Negative externalities may be defined as cost, that are imposed upon an individual by other individual both of whom are extracting benefit from the same natural resources).



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Charles W. Howe (Howe:1979:243:245) using micro economic theory and institutional economics showed that CPR problem is due to absence of exclusive property rights. This approach traced the problem of CPR to the difference between socially optimum level of resources use under the competitive equilibrium when the existing firms have exclusive property rights. The latter tends to be higher than the former and that is why common pool resources tend to be over-exploited. Thereby we can conclude that absence of private property rights in a common property resource system allows the entry of new firms, thereby eliminating excess profit. This is the rational behind the argument defending the granting of exclusive property right to either an individual or firm.

Similarly, Das Gupta (1993:159-67) tries to formally show that industry profit is highest when there is only one user. Though while analysing, he does say that community controlled management of CPR is also a viable option. The

problem of common occur when  $M > 2$  ( $M$  is the number of users using a natural resource). Therefore, he mathematically tries to prove that CPR can be better managed when there is exclusive property rights.

Demsetz (1967:353) argued that private property rights help in internalising the externalities and thus it is economic. Hardin (1978:314) suggested that CPR ruin can be prevented by either privatisation or socialism and this change should be implemented with all force at disposal. Smith (1981:467) also recommended private property regime as the only alternative to prevent the tragedy in wildlife and natural resources. Randall (1975:) asserts that exclusive property rights can lead to efficiency, though he specifies certain conditions for it.

- Exclusive rights must be specified so that all rewards and penalties associated with an action accrue to the actor.
- Such rights must be enforceable and enforced
- Rights must be transferable, so that it may gravitate to their highest value use.

Welch (1983:317) thought that creation of full private rights is necessary to avoid the problem of over-grazing. Katar Singh (1994:54) lists the following advantage of private property regime with reference to agricultural lands, which he thinks can also hold true for CPRs.

Private property in land allows the farmer to mortgage his land for securing loans and thereby enabling him to make long term investment (buying costly implements etc.).

It also allows the farmer to invest for making long term improvement in land which will invariably promote yield-per-hectare.

### **Some Empirical Evidences**

Field and Kimbally (1984) studied the transition from common property to private property in the colonial New England in USA and concluded that private property regime is superior institutional form that supplanted common property and made economic growth possible (K. Singh: 1994:56). K. Singh (1994) Tushar Shah (1987) asserted that granting of *patta* rights to landless families in West Bengal over trees planted on state land for a period of ninety nine years proved quite effective. This amounted to de-facto privatisation and the system proved to be quite efficient in limiting the tragedy and putting the land to productive use.

Similarly D.P.S. Verma (1988) studied seedling managed by poor women in Gujarat and concluded that poor women not only earned income but also have the incentive to grow as many seedlings as they can sell.

However, this study argues that privatisation may not be the viable mean to avoid the ruin of CPR. This holds specially true for a developing and diverse country like India where literacy is low, access to scientific and technical

know-how is scarce and costly, corruption is rampant and institutional credit is cornered by the dominant section of the society.. Privatisation might provide positive results in service sector, but not in a situation where the poor draw substantial amount of their sustenance from CPRs. Exception would seem to occur when the resource involved itself provide a catalyst and does not demand free riding to extract more benefits (Gujarat Seedlings) or when the political will of the State is determined to ignore the dominant section and protect the 'changed arrangement' (as in W.B.). Besides privatisation has some inherent weaknesses which will be discussed in greater detail below.

(A) Privatisation of Common Pool Resources demand access to technical information about how to use the inputs, institutional credit system, and the presence of enough knowledge to show relative profitability in CPR.

In India, with literacy rate being low, technical information and education is tough to disseminate. Further, credit offered by government agencies are mostly concerned by rich and dominant caste/class. Privatisation in India can only be a viable option only in those small parts of the country where level of education is high and caste/class structure is not that fluid, so that it may permit domination of one section of society by another.

As discussed above, in the case of West Bengal, where the creation of private property regime has yielded some positive result. This was only made possible because the dominant political regime whose ideology was broadly left and was able to keep itself insulated from the dominant section of the



society (Kohli:1987 ). The CPI(M) led government vigorously carried out land reform and there was genuine effort on the part of the government to provide technical education, credit, inputs and training.

On the contrary, Narpat Jodha (1986, 1990, 1992) study of more than eighty villages in Western and Southern India found that village scheme to aid the poor by privatising CPR did not produced desirable results. The greater share of land went to non-poor beneficiaries and those among the poor who did receive land often found themselves unable to manage or even retain their new assets. From the point of view of CPR, the land itself tended to suffer. In other words, it deteriorated into an even worse condition than when it had been overgrazed prior to privatisation. Moreover, collectively the poor had actually received more benefits when they were able to utilise the CPRs as common land before privatisation had begun. This was further cemented by a study carried out by Rita Barara (1987). She pointed out that precedence of private agriculture over common used pastures regularisation of encroachment on revenue land (*Siwai Chak*) further degraded CPRs.

Under certain circumstances, the physical characteristic of the resource may demand the establishment of Common Property Regime over Private Property Regimes. Shruti Chopta (Chopra:1996:6) points out the following reasons for it :-

- The physical characteristic of the resources boundaries may be so large as to raise extraction and protection cost substantially.

- If the resource is mobile (or even if it is immobile, e.g. patch of forest, but the private plots are contiguous and monitoring is imperfect), externalities will typically fail to be completely internalised. Further, there may be sometime be economies to scale for maintaining the resources as common property rather than splitting it into many smaller units (e.g. a grazing common) (See also, Ostrom: 1990:12).

(B) Privatisation may create new externalities where additional costs are imposed on former users of resources as they reach alternative source of supply.. With multiple users and uses this may create conflicting claims over the resources which at best adds to the cost of enforcement and at worst deteriorates into an open access situation. This problem is likely to be acute when capital markets are imperfect where the claims of those with sufficient access to credit are legitimised during the privatisation process. In cases where only a minority of former users fall into this category, efficiency losses may accrue not only due to higher enforcement cost but also because the market for private rights in the resources is thin and unlikely to be competitive.

Even it the fact that private property regimes provide enough incentive to the proprietor to invest and increase the productivity and efficiency level us held true, then also the problem of over-exploitation of the resource system and consequent depletion will invariably be there. In general, the higher rate of discount. the higher the market price of the resources and the lower the cost of

extraction, the greater the tendency of over-exploitation to emerge, irrespective of the definition of property rights. Further, if the market rate of interest differ from social rate of discount, the appropriation will never be at social optimum level.

### **State Control**

The single owner of Common Pool Resources could also in theory be State.

The proponents of this theory advocates that an external agency/government may acquire a resource and manage it as a State/public property (nationalisation) or may intervene otherwise in existing resource management system by imposing certain rules and regulations. In the context of CPR management 'nationalisation is a special case for privatisation in which resource ownership is transferred entirely to the national government' (K. Singh: 1997:58).

Thus, authors even went to suggest an 'iron government' (Heilbroner: 1974) in order to tide over ecological problems. Hardin, a decade after his brilliant article 'Tragedy of Commons' thought that this could only be rolled back either through 'privatisation or socialism' (1978:314)'. His prescription for instituting control is 'mutual coercion' agreed upon by the majority of the people affected. This for Hardin becomes necessary because he believes that human beings are 'veiled under cloud of ignorance', with regards to the political system required and its affect on environmental protection. Similarly,

Ophulus (1973:229) also thinks that supreme and powerful state is necessary to prevent the ruin of environment. The rationale behind these recommendations are:

- State has large funds at its disposal than the individual. Therefore it is in a better position to invest in the upkeep of CPRs.
- State is more adept at handling the time factor In other words it has longer planning horizon than the individual(s).
- State is bound to look at the interest of the poor.

It has also been argued that State can only bigger of production/development but can also recommend and implement policies for conservation of environment.

Ostrom (1994:15) argued that State/Centralised agency can control the ruin of the resources and generate an optimal efficient equilibrium., only if it (external authority) accurately determines the capacity of the CPRs, unambiguously assigns the capacity, monitors action, unfailingly sanctions non-compliance, Likewise, Shruti Chopra (1996: ) asserts that State can maximise efficiency functions only if,

- State maximises social welfare function and weighs everyone preferences adequately.
- Applies the correct social rate of discount.

- Is ecologically sensitive.
- Independent of influence of vested interest.

Further State's commitment to the regimes objective must be credible, i.e., a resource user must believe that the State will not normally compromise these objectives and the claims granted to them are secure.

### **Indian State And Common Pool Resources**

Since this work is primarily trying to focus on the capacity of the various regimes which can manage CPRs in a sustainable manner, besides giving maximum advantage to rural poor. This sub-section will to on to argue that Indian State have miserably failed on the above-discussed counts. Most of the examples taken are from forestry because, bulk of the literature on this in India addresses this issue, though fisheries and water management can be other suitable areas and hence, would be referred only occasionally.

In India even before the emergence of any kind of State power, there were indigenous institution with there governing code to manage Common Property Resources. Kishore Saint (1987) points out that the relationship of the local community with the natural resources reflected a combination of individual, family, kinship and common basis of ownership and occupancy rights. For instance, the locals have sacred association with the commons in the form of temple and groves around them. The people relationship with the commons was based on customs and traditions evolved over many centuries

and generations of access and use. Often there are unwritten rules and codes that grown this relationship and a structure of responsibility to ensure its observance.

The hilltops and deity temples were enriched by periodic plantation, an activity considered meritorious from the religions point of view. The village pasture intended for fodder and fuel resources had customary regulations governing their use and maintenance.. In the case of tribal communities, the common lands were common property of ancient origin. These comprised 80 to 90% of the resource available to the community. In most cases, the traditional habitat was not considered property, one simply had a possession over it. The products of the commons were linked to the people subsistence economy and were not sold or brought in the market. Guha (1989) points out, people had an intrinsically intimate and reverential attitude to the land and on the strength of this, they had developed a protective ring around the forest, through folklore, religion and tradition. This situation i.e., rural community and commons relationship which has evolved and sustained itself over centuries began to undergo basic changes once the colonial State took control of the CPR for revenue generation. Matters even worsened when these policies were implemented more vigorously after 1947 .The Colonial State in India introduced privatisation on one hand and Statisation on the other. This was supported on the grounds of ‘scientific forestry’: reserved forest, revenue forests and protected forests were the new designation, for the common lands and wastelands (Guha, 1989). These changes in ownership, access and use of

CPRs were accepted and enforced with even greater zeal after 1947. Things at the ground level in the independent India has not changed perhaps worsen. Although a new forest policy was announced in 1988, the policies embodied in 1927 forest law continues to be implemented (Chhatrapati Singh: 1986 ).

As for institutional tradition, scientific forestry has taken production and conservation as its cardinal twin principle, and the first half of the credo has meant creating revenue for the State, an expectation that has generally been fulfilled. For instance, in 1990 revenue from forestry in the State of Maharashtra accounted for 3% of the total government revenue. In many situations, production/revenue generation/development and conservation can be practised simultaneously but when the dominant `wisdom' dictates the former, the latter is hard to practice. This is quite evident, if we see colonial and post colonial debate over forestry ( For a detailed debate , seeGuha-1989).

In independent India Forests were often leased to contractors who mercilessly fell down the trees without any concern for the ecology. This so called ``scientific forestry' not only proved ruinous to environment since no step for ecological conservation were taken but also usurped the traditional rights of the users of the resources. This conventional paradigm starts by equating development with economic growth measured by magnitude of gross domestic product. This thought framework invariably ignores environmental impacts and whether fruits from the projects are used sustainably or unsustainably, renewably or unrenewably? Are they being depleted? Are they being stolen from future generation?

The State control turned virtually into an internal colonial arrangement in which according to Chhatarpati Singh (Singh 1986 ) the major beneficiaries and the consumers are urban rich. The fate of resource forests is equally bad. A forestry department duty to conserve the forest is often an individual foresters license to sell forest products legally in exchange of bribes to poachers, kick back from concessionaires and bidders at timber auction.

This whole notion of development based on scientific forestry as well as other large development projects which affect the ecology of the area has been questioned. When one destroys an ecological niche, it pushes people unsustainable means of survival such as, illegal felling, encroaching on forests etc. This may also result in migration to other areas which invariably increases the pressure on the CPRs their.

Thus, we see projects based on big dams are being vigorously questioned since they submerge a large area, resulting in much destruction of bio-diversity and displacement of the people. Instead of these big dams, small check dams are advocated to safeguard communities civil right as well as the environment (See Ashish Kothari, :1988). Therefore, we observe that 'Indian State' in the post independent era has not only repeatedly been ecologically unfriendly, but also have failed to apply correct social rate of discount.

This point was further cemented by Rita Barara (Barara, 1987) concerning CPRs in the State of Rajasthan. She argued that this State since 1950, followed a progressive policy vis-à-vis private cultivatable land, but for



the CPRs the policy has been regressive. The forced conversion of *Charagah* and other areas used for grazing into 'revenue land' and 'forest land' further alienated the poor from the upkeep and maintenance of CPRs. Mindless extraction of resources units from the resource system started which further degraded the CPRs. The remedial action taken by the State Government was allotment and regularisation of encroachment of revenue land or *Siwai Chowk* in number of cases. This became even more ruinous for the poor because as Jodha points out, in some regions of Rajasthan, poor draw almost 30% of their sustenance from the CPRs. Moreover, whenever privatisation or nationalisation was done, the poor were invariably excluded and condition of the CPR further deteriorated due to over-exploitation. Further, the State agencies always set up ad-hoc non-statutory administrative committee for every development programme. This practice is ubiquitous and, it applies to fisheries, dairy, agriculture irrigation and every other natural resources. In practice, it has been proved time and again that these committees are not free from the influence of powerful and dominant section of the society.

A study carried out by Ashish Kothari (Kothari 1992) shows Narmada Sagar Dam Projects ostensibly planned to irrigate the Kutch region of Gujarat will given maximum benefit to the area dominated by rich farmers of Maharashtra and Gujarat. Yet, another micro level case could be pointed about with regards to management of common irrigation system. Bihar government set up a committee which recommended installation of 10 tubewells to irrigate Konag village agricultural fields at a nominal monthly fees. Access to water

was denied to do lower caste people having small tracts of field in the village by the rich and powerful upper caste. For the past 5 years, the authorities are mute spectators this the gross violation of rights of the marginalised section. Such examples of essential natural resources being controlled by a powerful section of the society are numerous in India. The State, has more often than not failed to monitor actions and put sanction against non-compliance.

Negative sanction against non-compliance or flouting the rules is not only because of domination of rich and powerful but also because of lack of information. The vastness of the country often does not provide the central agency monitoring the CPRs to take note of non-compliance or free riding. For instance, rural roads and sidewalks of State highways can and has provided opportunity for social forestry. However, it has been found on numerous instances that this space has been encroached upon and for all practical purposes been annexed by the adjacent landowners. The laxity on the part of administration can also be due to centralised bureaucratic apparatus manned by staff most of whom are office bound and heavily burdened with administrative duties. Despite their limited field time, they are responsible for monitoring the forest use of millions of rural inhabitants and migrants as well as loggers and livestock. This type of hard-pressed schedule reflects in 'lack of information' about the area under their jurisdiction.

Many a times in India, State itself has initiated CPR management regime with a view to involve the locals through the institution of *Panchyati Raj*. Under the scheme, a common land is selected by the forest department in.

agreement with the village statutory *panchayat*. The forest department role was to plant the seedlings, supervise the early growth and then hand it over to the Panchayat, which would maintain it and later harvest them and distribute the benefit. These schemes have not been very successful because they again reflect the priority of the forest department, i.e., giving priority to timber fuelwood over fodder and thinnings. Secondly, *Panchayat* is controlled by village elites, so this scheme often reflects their interest also. Thirdly, woodlots are seen as revenue generators for panchayat, and hence it is more willing to auction rather than give it free or at subsidised rates to villagers. Often *Panchayat* leaders are not willing to put their 'wisdom' into the whole business fearing distributional squabbles. In such cases, forest department is more than willing to control the CPRs. This situation ensures that relationship between forest department and the villagers remains the age old one.

Thus, we see that centralised control or privatisation have usurped the rights of users to use CPR legally, thereby alienating them from its maintenance in a sustainable manner.

### **Collective Community Management**

The discussion in the last two sub-sections have amply made the point clear that CPRs, when controlled privately or through a centralised agency cannot produce the desired results, especially in a developing country like India. A private property regime on one hand excludes the poor and marginal section of the society who derive maximum sustenance capacity from these

resources. On the other hand, privatisation is technically not feasible in certain Common Pool Resources like ground water, fishing etc. Besides this, the problem of over exploitation and consequent degradation will always be there. Further our experience with nationalisation (which is incidentally the most dominant form of property regime in India) of these resources has shown that this kind of arrangement has played havoc with CPRs. Over-exploitation, alienation of the users from the resources, illegal encroachment, degradation of CPRs has been the result.

This study thinks that the problem facing Common Pool Regimes is how to convert them into Common Property Regimes, or in other words how de-facto users are made into de-jure users. The problem then can be defined as 'Collection Action Problems' faced by rational individuals who find themselves in complex and un-certain situation.

Collective action connotes 'individual attribute less value to benefit that they expect to receive in the distant future and more value to those expected in the immediate future'. In other words, individual discount future benefits (Ostrom:1990:34). According to Elster (1989:25) a collective action problem can be defined as 'any binary choice situation in which it is better for all if some make one choice the co-operative choice' (with the help of some monitoring and enforcing institutions) 'than if all make the other choice, although better for each to make the latter'.

Collective action problem is thus triggered off when there is uncertainty of

- Time horizon factor - whether or not individual expect that they or their children will be present to reap the benefits, or if the sustenance condition for the current year is bad, they will discount the future returns.
- Similarly, when locals feel that a CPR can be destroyed by the actions of others, no matter what local appropriators do, (e.g. nationalisation), even those who have constrained their appropriation from a CPR for many years will begin to heavily discount future returns as contrasted with present returns.
- Uncertainty can also stem from the lack of knowledge about the resource itself, weather factors like timing of rain or amount of sunlight, market price of the resources, and lack of knowledge of disease bearing vectors.

Therefore, it can be argued that problem which Indians are facing today with regards to CPRs has largely emerged from State controlling the resources and exploiting them in a unsustainable manner for revenue generation. Besides this, locals who are dependent on the resources are de-facto appropriators. An increasing number of authors now advocate collective management of Common Pool Resources through self-growing institutions. Institutions are form of constraint that human being device to shape human interaction.

Institutional constraint include what individuals are prohibited from doing and sometimes under what conditions some individuals are permitted to undertake certain activities (North:1990: ). North further points out that these constraints can be either formal or informal. Formal constraints are the rules which human being device and informal constraints may include conventions and codes of behaviour. These institutions are different from organisation for instance, like *Panchayats*, because organisation are created with purposive intent in consequences of the opportunity set resulting from the existing set of constraints (institutional ones as well as traditional ones) and in course their attempt to accomplish them are major source of institutional change. Organisations therefore include, political bodies economic bodies, social bodies. Thus, institutions what we envisage for management of CPRs will only include actual users of CPRs.

Cases of success in users managing CPRs are numerous in the literature of CPR management. For instance, Ostrom studies (1990:56-110) four cases of ultra stable institution and pointed out that self-managed institutions were able to over-come CPR problem. Besides this, those participatory institutions were able to withstand the natural calamities like droughts, floods, as well as major economic and political changes. Ostrom in another three case studies of ground water basin in California illustrates how CPR appropriators were able to confront with the situation of rent dissipation and resource depletion.

At a conference on Common Property Resource Management (1986). twenty case studies were presented which pointed out to the ability of co-users

to device and implement their own rules and manage CPRs. However, whenever, government intervened and tried to implement their own rules many problems arose. These papers also pointed out that success is inevitable when government plays the role of facilitator rather than manager.

In India, scholars like Brahma Dev Sharma (Sharma, 1989), Anil Aggarwal Sunita Narain (1989), Madhav Gadgil (1984) have provided a well reasoned case for village based community management of common lands as essential for poverty alleviation. Robert Chamber (1993) and Tushar Shah (1987) have shown the practicalities of community management and co-operation for common resources on the basis of extensive empirical studies.

In a few cases, the right approach and sustained work, usually with voluntary agencies' involvement, has succeeded in renewing the village community's sense of relationship and responsibility and has even led to the community's active participation in the programme.

Thus, we see that there are numerous examples within the country which tells us about the efficiency and effectiveness of self-managed institutions in governing Common Pool Resources. But the fundamental question here is - why will individual(s) pool in their efforts towards this end? The theoretical model elaborated below attempts to answer this question to some extent.

## **Olson's Theory**

Olson in his book the Logic of Collective action was generally responding to the group theory propounded by Bently (1949) and Truman (1958).

Group theory assumes that a human being is rational and thus in order to protect his self-interest he would contribute his efforts to any collective endeavour, since his self-interest forms a sub-set of the larger group interest. Therefore, in the context of natural resources management, all the individuals procuring benefit from the CPR will co-operate by extracting the resources which will not only sustain them, the whole group, but also the future generations to come, besides being ecologically sustainable. Olson contested this point by pointing out that 'unless the number of individual in a group is quite small, or unless there is coercion or some other special device to make individual act in their common interest, rational, self-interested individual will not act to achieve this common interest' (Olson:1971:2).

This situation is analogous to perfectly competitive market situation where all the firms act against the interest of their group by expanding their production till the market price falls and equals its marginal cost and industries' excess profit is eliminated. This happens despite the fact that every firm tries to maximise its profit and has a common interest in a higher price for the industry's product. The logic underlying this phenomenon is that, in the absence of any regulating authority to decide on the quantity of output, and no



ban on the entry of new firms, the market is flooded with increased output which brings down the price and hence profit. However, this does not mean that each firm is acting against its self-interest by expanding its output. If it acts contrary to this, it would lose more because the prices will fall in any case and in addition, it would have a smaller output.

Similarly, in case of Common Pool Resources, an individual is too small an entity to have any significant impact, by contributing or not contributing its maintenance, but he can share its benefit even if he has not contributed anything to its maintenance. In other words, free riding (on the back of those who contribute) is possible. Thus, individual rationality leads to a collective behaviour which is irrational.

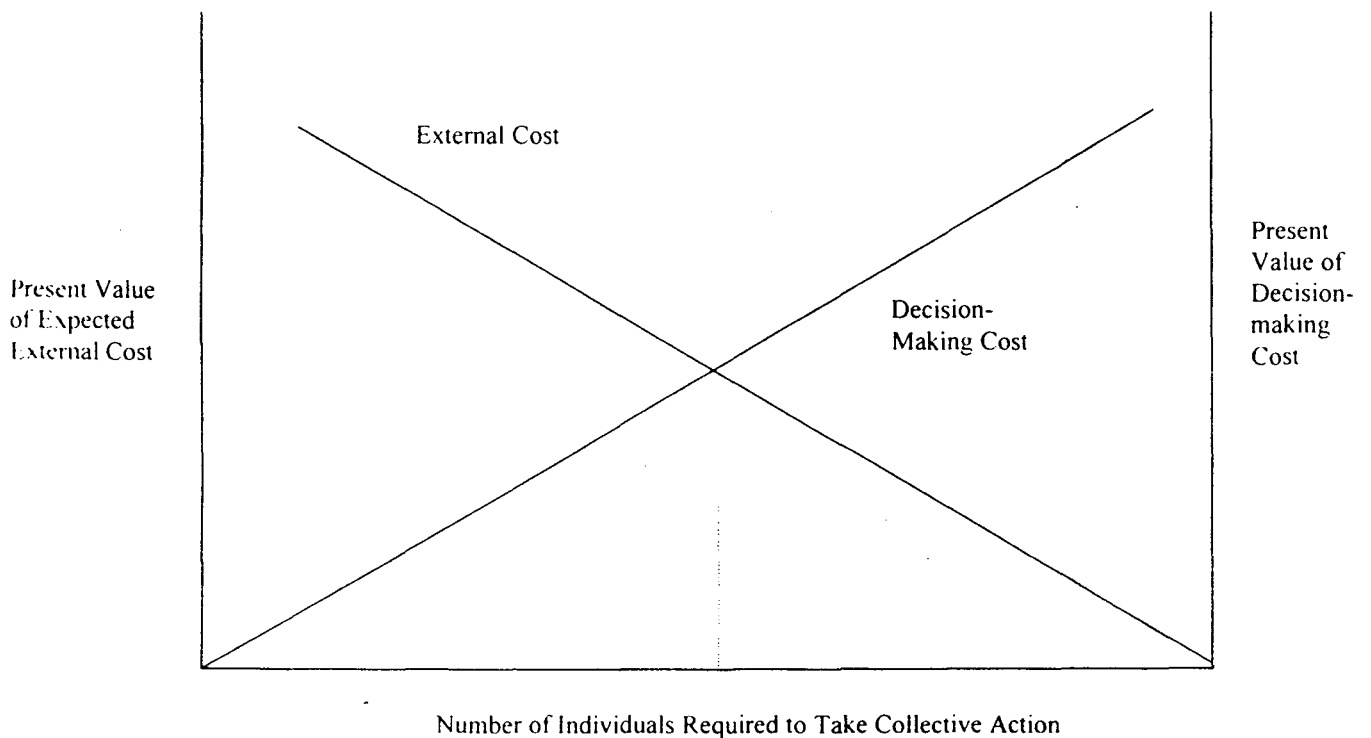
But Olson does say that collective rational action is possible when the group is very small (though he didn't specify the number), so that individual action of any one or more members are noticeable to others. This will prevent free-riding. We can also deduce logically that a small group connotes a well defined group with no entry to non-members. This way Common Pool Resource may be converted into Common Property Resource.

### **Buchanan and Tullock's Cost Approach**

Any CPR management regime will only be successful argues James. M. Buchanan and Gordon Tullock (1965), when the individuals pooling in their effort in this direction perceive that the total cost (external cost + decision making cost) is less than the expected benefits derived from the regime. This

approach was called by authors as Cost Approach, and pointed out that group action can reduce external cost. External costs are envisioned to decrease and decision making cost to increase

External cost can be defined as those costs that are imposed upon an



individual by action of other individuals. Decision making costs are those costs that individual expect to incur as a result of his own participation in making contracts, or any other collective decision.

As the number of members in the group will increase, the individual will get maximum utility when External Cost and Decision Making Costs are minimised.

The optimum decision making point is shown by lowest point on the composite graph. Further, it solves the problem not addressed by Olson theory about the size of the group required. More importantly this theory tries to point out that it is the cost (external + decision making) which determines co-operation and not the size of the group.

This study will make use of field to try and unravel the processes by which participative institutions work in practise and to what extent they are successful.

## CHAPTER III

### THE FIELD-RESEARCH

#### Introduction

Participatory approaches to development have been proliferating in developing countries since the beginning of 1980's, and it is now an accepted components of all rural development project designed triggered of by the Government as well as mainstream donor agencies. Thus, by accepting the rationality of participatory approach, numerous projects have been initiated on various sectors such as small holder crops and livestock development, irrigation and village water supply, social forestry, and village commons etc. The rationale behind the scheme is to manage these resources sustainably and give maximum benefit to the poor and women.

The next two chapters tell us about the experience of field work. The first chapter informs us about the empirical realities of project implementation in the village *Aamwala*. After discussing the essential ingredients of the project and actual level of participation, the next chapter will critically assess the projects. This chapter informs us that participatory development is not a panacea but is fraught with many serious problems. This not only stalls effective participation but also hinders a shift towards 'decentralised development'.

## Criteria for Choosing the Village for the Study

The village *Aamwala* was selected for a case study because people of this village have come forward and organised themselves into two self managed institutions, both triggered off by an outside agency.

One of the self-managed institution – *SWAJAL* – came up under the impetus of the Rural Litigation and Entitlement Kendra (RLEK) which, in turn, is financed by the World Bank. The objective of this *Swajal* institution is to bring clean drinking water to the village through a pipeline and to look after its maintenance. Before the operation of this project, the nearest available water supply was Nun river, 2 Kms downhill. In the past, the water for drinking, cooking, washing and bathing was collected from this river which required 2-4 hours daily for every household. The basic impetus for forming this institution was the scarcity of water and role of RLEK. The other project *Jalagam* was initiated and financed by the state government. The objective of this project is to control de-forestation and consequent soil erosion, through re-generation of trees on village commons, provide fuel-wood and fodder within the village and thus reduce pressure on the neighbouring forests. It was told by mid 1980, village pastoral components had all disappeared because of over-exploitation. Trees were also cut and used as fuel wood. This increased the pressure on neighbouring forests as daily requirement of fuel wood and folder was collected from this forest. This also resulted in ecological imbalance. The people got themselves associated with *Jalagam* because this scheme had the potential of saving lot of energy which use to go in collection of their daily

requirement of fuel wood and folders, besides getting other benefits from the scheme.

Therefore, we observe that participatory institutions were evolved in *Aamwala* with the help of outside agencies. People came forward and organised themselves because of the kind of natural resource involved which are very crucial to their livelihood.

### **Methodology of the Field Work**

The Field survey was conducted with the help of open-ended interviews. There were 112 households out of which 41 were interviewed. Nearly all the *Samiti* members of both the self-governing institutions were interviewed. It was taken care that while interviewing, balanced representation was given to different class, caste and gender. The major emphasis of the interviews was on the following:

- How many people currently use the CPRs.?
- What has made them come together for this kind of institutional arrangement?
- How was the decision taken?
- What was the role of the users including women?
- After the formation of this body, how are the policy decisions taken and in particular the role of women in them?

- Is it possible to exclude or prevent the illegitimate users from using CPRs?
- What actions(if any) are taken against the free-riders?
- What is the role of traditional leaders in the use and management of CPR?
- What was the condition of CPR

\*five years ago.

\*after the formation of self-managed institutions.

### **Location of the Village**

The village Aamwala is located 25 Km west of Dehradun. It is situated on a gently sloping ridge with Nun river flowing on the eastern side and Hulle Bay Khala on the western side. Both on east and west side there are mixed reserved Sal forest which are almost denuded due to illegal felling of trees, though very good signs of regeneration of there first can be observed. This regeneration has been made possible primarily due to community management scheme started with the aid of World Bank and state government. The average height of the village is 750 meters above mean sea level.

### **Socio - Economic Status**

The village has 112 household with a population of 630. There are two distinct habitations. *Upper Aamwala* has a population of 241 and its habitants

are Hindus *Lower Aamwala* has a population of 389, majority of which are Muslims, and few are Harijans. The main occupation of the village is agriculture and wage labour. Only 6, 662 hectares of land is under seasonal cultivation and as a result the land holdings are very small. Majority of the villagers are poor and fall below the poverty line. There is one primary school and one junior high school in the village. Nearest Dispensary is at *Prem Nagar*, 15 Km away. The break down of Socio-economic status are as follows.

Name of the villages-	Aamwala
Block	Sahaspur
District	Dehradoon
Number of Household	112
Total Popualtion	630
Male	176
Female	186
Children	268
Schedule Caste	14 households
General	26 households
Other Backward Castes	72 households
Number of Cattle	180



Village Common land	70
hectare. (It includes both grazing land and village orchards)	
Number of Household Below poverty line	100
Above poverty line	12

### **Topography of the Village**

The village is located at the height of 750 mt. On a gently sloping flat. Ridge, half a Km wide and two Km in length. On the eastern side Nun river and on the western side Hulu bay/Baikal-Khalas flow through mixed. Forest of Sal. On the northern side is village Dhaulal and on the southern side is village Jamanwala. Natural drainage of the village is now good (As in widely known, denudation of green cover causes a drastic increase in the rate of soil erosion. A similar process was occurring in the Doon valley). However, it was noticed during the field trip that due to the re-generation of forest through participative management by the community the natural drainage of the area has improved. The local community works also pointed that it has led the significant reduction of soil erosion

### **Climate –**

The village falls in high rainfall area varying from 200 MM to 2200 MM. The temperature varies from 6degree centigrade to 38 degree centigrade

## ***SWAJAL***

*Swajal* is a scheme essentially promoted and financed by World Bank with the help of mediating agency named Rural Litigation and Entitlement Kendra to bring drinking water in the village. The World Bank funds are channelled through PMU, a government concern. Thus this scheme was started with a tripartite agreement between World Bank represented by state government agency called PMU, a NGO called RLEC, and the village committee (*Samiti*) representing the villagers. It was basically, some commendable work done by volunteers of NRLEC, who explained the villagers of the advantages of pooling their resources both physical and financial, so as make the community self-sufficient in drinking water.

### **Water Availability before the Scheme**

Previously Jal Sansthan/ Nigam was providing water through a multi village gravity water supply scheme from Hullu Bay Khala. *Aamwala* being at tail end gets very little water, due to the fact that most of the water was consumed by other villagers at the higher attitude. From April to June, hardly any water reaches the village. This water supply scheme was constructed in 1972, and has outlived its life both technically and practically. The former means that the pipe line which was in open got completely worn out, has numerous leakage and the latter indicates that pressure of increasing population made the available water grossly inadequate. Even during, the non-summer months an *Aamwala* residents has to go to the neighbouring village called

*Shivpuri* to collect water from the public tap or to the Nun river. The task was primarily carried out by the women folk. During the field trip, it was pointed out by the villagers that women folk used to get up at 4 'o' clock in the morning in order to fetch water. The average daily requirement for each household is 100 to 150 litres. This demanded, at least 3 to 6 rounds to the river or the neighbouring village (depending on the strength of the women folk per household). This business of fetching water used to consume 2 to 4 hours daily. As far as the men folk were concerned, their daily routine requiring water was carried out away from home, in and around the river.

### ***Swajal* - Community Water Management Scheme**

In the course of various contact programmes of RLEK, the scarcity of water supply to the village came to light. The volunteers of RLEK impressed upon the village community about the advantages of coming together and participating in the *Swajal* Scheme for bringing water to their own home/village. Though this scheme is not very old, the results appear to be positive. The basic features of the whole project are discussed below.

With the help of RLEK, the villagers first formed a representative committee (*Samiti*) comprising of all potential users of water that would be thus provided. This incorporated all the 112 households of the village. The *Samiti* was to oversee the whole project, both during the construction stage and operational stage.

The committee comprised of nine members unanimously elected by the users. Out of these, three were women. Though this was a policy decision, the women were coaxed into the committee but of late they, along with other women, have started taking interest in the project after the benefit they recurred.

Though the caste structure of the village comprises of upper caste Hindus, Backward Caste Hindu as well as Muslims and Schedule Castes, there did not emerge any friction while evolving participation. This was primarily because class differentiation is only marginal and CPR covered by the project was essential to this daily life. The only asset of the committee members elected by the users was a relative good exposure to the happening outside the village.

### **Technology Options**

The villagers have excellent knowledge of various water sources existing in the surrounding areas. Accordingly, eight different sources of water were examined. Out of these 4 were rejected by the villagers because their traditional wisdom told them that “food will not boil in them” (because this water has a high boiling point due to high mineral content). Moreover, in 3 other water sources water yield was not adequate to meet the present requirement. The villagers also rejected deep tube well pumping scheme and Nun river pumping scheme because its estimated capital cost was very high. The villagers supported by RLEK chose gravity water supply for the village.

Thus, the water was tapped from Baredkhala from where the water was to be brought to the village by a 6.4 km long pipeline. The point at which the water is tapped is first stored into a tank where impurities are filtered. The water at the source, when scientifically tested by RLEK, was found clean of suspended and bacteriological impurities. However, some turbidity is found during rainy season for which filters are used.

As already indicated the total length of the pipeline is 6.4 Km. Half of the area is rocky and half of it passes through forests and agricultural fields.

### **Participation**

The total cost of the project is 19.722 lakhs. The users community contributed 1% of the total cost which comes to Rs. 208/- per household. Though all households did not deposit the full amount due to their low income level, many gave more than their share. Besides this, every household was supposed to contribute 34 days of free labour. This amounted to 9% of the total project cost. This would have provided the entire labour for digging trenches for embedding the pipeline 90 cms. beneath the ground. This was done on the insistence of villagers since the past experience tells them that this will protect the pipeline from landslide, besides keeping the water cool during summers.

This project offered taps to the individual household also on the payment of Rs. 1000 extra. Seventy three of the total household availed of this facility. Besides this, public tap stands were provided. The location of the tap stands are as follows:

<b>Location</b>	<b>No. Of household</b>	<b>People</b>
Harijan Basti	7	29
Upper Caste Basti	7	20
School Basti	-	128
Panchayat Bhawan	-	-
Backward Caste Basti – I	17	96
Backward Caste Basti - II	8	46
Junior High School	-	56
Mandir	-	-

The maintenance of the public tap stands is monitored by one representative of each block. S/He collects Rs. 8 per month from for each household using public tap for its maintenance. Besides this Rs. 25 per month is taken from the individual household who opted for private taps for the same purpose.

It is imported to note that 1% of the money collected from individual went into a fund which is triggering off other development activities under the control of a users' committee with assistance from RLEK. The activities include informal education, women's development, community work, environment protection, and any heavy maintenance cost that may arise.

The people looked forward eagerly to the completion of the project. They monitored it at each and every stage, i.e. both at implementation as well as operational stage, but some problem arose at the time of providing voluntary labour. Though there was a provision that if a household is not willing to provide voluntary labour, he has to contribute Rs. 1700 extra, only few of the

households did so. The voluntary labour was not at its optimum because, as already pointed out, most of the people in the village are wage labourers. And donating a day's labour would have been at the expense of their one day's earning. Moreover, voluntary labour from women folk was not very forthcoming because it would have meant labour at the expense of fodder and fuel-wood collection. Still, around 425 man-days' of labour was provided voluntary. This shortage was met by siphoning of some money from development funds.

As far as participation in maintenance of the pipeline is concerned, the villagers seem to be taking full care, though its very early to come to any definite conclusion. This study is very optimistic about people's participation because the kind of resource involved. This belief got cemented due to the fact during the implementation state when the pipeline was passing through agriculture fields, the owners were more than eager to allow the trenches to dug, even at cost of their crop.

### ***JALAGAM***

Nature has generously bestowed on the Doon Valley region of Uttar Pradesh with abundant water resources. But sadly this immense potential for economic development and material prosperity locked up in this abundant water resource has remain unutilised. What is worse is the irony that instead of bringing plenty of prosperity to the people of the region, they only bring destruction and ruin, particularly during the rainy season when even tiny streams with a trickle of water during the dry months become raging and

tearing torrents. During the monsoon months, the flowing water washes away tons of top soil and causes erosion on a colossal scale. The soil erosion is because of massive denudation of green cover due to appropriation by the State/ villagers beyond the sustainable limit.

Aamwala, till few year back, was witnessed to such colossal denudation and consequent soil erosion because of the following reasons:

- (i) Commercial exploitation as per working plans and also, illegal over exploitation.
- (ii) Utilisation of forests products and village CPRs in terms of fuel-wood, fodder, timber etc.

This study is primarily concerned with the second type of over-exploitation. As indicated earlier, Aamwala village is divided among 112 households. In addition to the agricultural fields, the villagers own 180 cattle and buffalo and around 30 hectares of grassland to support them. The major demand on the surrounding forests and grasslands come from grazing and collection of fodder and fuel. There are no major clearings of forests to generate arable land.

## FUEL WOOD

Wood is the dominant fuel used in Aamwala. Other sources of fuel such as crop residues and dried dung are not used in the village. The primary wood used for fuel in the Aamwala region are Mango and Sal. This is due to



dominance of these trees in the forest surrounding Aamwala. Prior to the denudation of the village commons, it was pointed out by the village elders during the field trips, that the demand was mostly met within the village. With the increase in population in the last 15 years, the pressure on the neighbouring forests increased. The two major categories of fuel-wood used are wood cut directly from the forest for fuel and wood gathered as a by-product of leaf fodder collection. The average daily use of fuel wood according to a very rough estimate, is 12 to 14 Kgs. in the summers and 15 to 17 Kgs. in the winters. Wood collection directly from the forest for fuel consists of the following:

- (i) Medium sized branches cut from tree.
- (ii) Trunk wood often cut illegally.

The former is cut according to daily needs but the latter occurs only when it is possible to bribe the forest guard and is then stored in the respective houses. It was informed during the field trip that this illegal cutting of trunk was essential for them because of need during Monsoons and wet, winter periods. This was one of the prime reasons for forests losing its green cover.

### **Fodder**

The type of fodder used in Aamwala consists of green and dried grasses, cutleaf from forests and farm trees. Whenever the villagers are not able to meet their fodder requirements, they are forced to buy the same from the nearby market.

During the course of field trip, an elderly man pointed out that leaves of older branches of Sal trees tend to be hard. Hence, the buffaloes refuse them. The most desirable ones are light green soft leaves which grow on small branches. But these small branches are too small and wet to be an attractive fuel wood source. Therefore, a very delicate balance has to be maintained, so that the branches are neither too big nor very small, in order to make its optimum use. This knowledge is of no use, since the villagers now tend to appropriate both kind of branches endangering the life of the tree. This is generally due to the alienation of the users from the resources base.

### **Labour Force**

This task of collecting fuel-wood, taking the cattle out for grazing and collecting fodder was primarily carried out by women folk and children. With, almost complete denudation of the village commons, these people were forced to go to the neighbouring forest which is almost 2 Kms. uphill. This on an average consumed 6 hours daily, though this varies according to the strength per household.

### **The Project**

The state government initiated a scheme called *Jalagam*, with an avowed objective of re-greening the village commons, and provide other facilities so as to reduce the pressure on the forests and control the soil erosion. The essential components of the scheme are as follows:

The authorities carried out a campaign to educate the villagers, about the nature of biomass resource base, the negative impact due to its degradation, and the methods to regenerate it.

With this objective in mind, they gave impetus to the formation of a self-governing institution. This was called *Samiti*. This *Samiti* has 13 members, out of which there are 4 women. Similar to the *Swajal* scheme the latter was a policy decision though now we witness a changed scenario due to some positive results. Technically speaking, this *Samiti* does not have any legal powers of punishing the free riders. It deals with the problem of free-riding by 'socially humiliating' the person concerned.

Around 31 hectares of village commons was planted with about 5000 trees of guavas and mangoes. This programme was carried out in three phases. The first year saw the plantation on 11 hectares, in the second year on 5 hectares and in the third year on 15 hectares. All this work was carried out at the expense of the State government. They also took care for these trees for first three years and then handed it over to the users' *Samiti*, i.e. they were declared property of the village.

Another 30 hectares of land which has gone fallow due to massive soil erosion saw the mushrooming of *Lentica* grass which is a bad fodder. This was replaced by *Ginni* grass, which is a good fodder. The *Samiti* was given the right to sell the grass at Rs. 2/- per bundle (each bundle on an average weighs around 20 Kgs.).

The same was the case with fuel food. The villagers were allowed to collect things from the village commons on payment of a very nominal sum.

It was pointed out during the field trip that despite the good intentions of the users, sheer necessity forced them to 'free ride' and take occasional trips to the forest in order to meet the shortfall.

Moreover, in order to reduce the pressure on the forest and lower amount of fuel-wood consumed, the government supplied subsidised pressure cookers and kerosene stoves. Tubs were also supplied at subsidised prices to feed the cattle so as to prevent wastage of fodder.

Further, heavy subsidy was also provided for the construction of *gobar* gas plant in order to reduce fuel-wood consumption. This facility was availed by 26 households whose income status is relatively better than the rest.

The money which was received by selling the subsidised item was deposited in the *Samiti's* bank account. But at the same time, the government instructed the *Samiti* to use this money for imparting some professional education to the women and children.

Besides this, the government helped the villagers in the construction of small check dams to prevent soil erosion and water lodging at the lowest points of the village.

## Participation

As already noted, the users were given the right to maintain and use the common resources after three years. It was also noted that the villagers, though not very enthusiastic, tended to protect the trees planted. The *Samiti* also appointed a *chowkidar* at Rs. 1275/- per month to prevent illegal felling of trees and collection of fodder. This protection led to regeneration of Sal trees which had been cut earlier.

Through the *Samiti*, the users got the right to 'socially humiliate' the free riders. It was pointed out that such instances of free riding are numerous but such 'social humiliations' are very rare.

The President of the *Samiti* also informed that they are deliberating on a proposal to ban the free riders from using the common pool resources for one month from the date on which he is caught or imposing a fine of Rs. 100/-.

The proposed professional courses are yet to begin, even after three years. The money, though deposited in the bank is yet to be utilised.

Thus, Aamwala has witnessed two different kinds of participatory institutions. One of them involves users' physical as well as monetary contribution and in the other everything is provided free, but demands only monitoring. The impact of these apparently similar but effectively different kinds of institutions will be discussed in the next chapter.

## CHAPTER IV

### ANALYSING THE NATURE OF INSTITUTIONS

The problems of CPRs exemplifies the failure of existing property regimes. These problems are inherent in the structure of property regime system, practised in India until recently. It has only served to alienate the local people whose support it requires the most. By the 1980's, various brands of populism emphasising the need for direct involvement of local people in the planning, and the endorsement of technical knowledge and practices, had become more visible to official planners. In the 1980's this critique from without has remodelled reform from within development bureaucracy, as participatory planning comes to constitute a new and widely embraced orthodoxy) especially with regard to the CPRs. We have already discussed the benefits of this kind of approach vis-à-vis other approaches in chapter II. The key to the success of participatory regime is self-governing institution.

Self governing institutions means that those people using one or more common pool resources, come forward and place themselves under any kind of constraint that may shape their behaviour. They may be in the form of formal rules, informal commitments, codes or conventions. Therefore 'Institutions' as rules are mutually agreed by people as acceptable behaviour. They are accompanied by sanctions--either some sort of reward for carrying out some prescribed action or some sort of punishment for carrying out a proscribed action' (Mathur: 1996:171)

These types of institutions are very different from other organisation, for instance village panchayat. The central task of village panchayat is 'settlement of disputed claims and the administration of justice (other than in cases which directly involve its own authority) .Secondly, resource management is not identified as a usual function of village panchayats' (Wade: 1998:8). The self-governing institutions for managing Common Pool Resources are different in the sense that they are formed by the users of such resources and therefore, may or may not include all the members of the village community. Moreover, the institutions are formed to regulate the upkeep of resources with explicit formal and informal agreements and rules amongst the users of such resources. These rules define *what can and what cannot be done* with regard to these resources and also defines the kind of sanctions to be imposed in case of 'free-riding'.

This kind of self-governing institutions come up when there is enough awareness of the fact that the resources are being used at an unsustainable limit (for instance, grazing lands) or to regulate or maintain any resource which is essential to the whole community (for instance, drinking water). These kinds of self-governing institutions take their roots when the users community become consciously aware on their own or through some outside agency that:

1. Their participation on an equal footing is essential in order to manage the resource(s) in question. For this, it is necessary that they should feel that they own the resources in common.

2. The sustainability of the resource(s) is essential for their livelihood as well as that of future generations.

The experience of field-research indicates that when an outside agency is involved in engendering participation in the management of such resources, both while forming the institutions as well as while governing the resource(s), different levels of participation can be noticed. The two projects under study accord a pivotal role to existing local level non-governmental organisations called Rural Litigation and Entitlement Kendra (RLEK) in the case of *SWAJAL* and to the state government officials in the case of other project, *JALAGAM*. These 'partner organisations' are *employed* to act as a link between the beneficiary community and the World Bank in *SWAJAL* and state government official are to act as mediator between the state government and the villagers.in *JALAGAM*.

The link is maintained through a technical officer and a 'community facilitator'. The role of the technical officer is to carry out data collection on the resource(s), and to design the project in accordance with the 'wishes of the community'. The technical officer is also entrusted with the task of training a community member to act as the 'caretaker' who is in-charge of project maintenance and operation. The role of the community facilitator is to mobilise the community by introducing the programme, motivating the village community members to set up an institution, which invariably involves only the user of the resource(s), in question. The community facilitator also explains



the importance of forming a core group from within the users group This core group often called the *Samiti* is an elected body and its main functions are

1. To act as a mediator between partner organisation and the users of the resource(s).
2. To maintain the resource(s) in question.
3. To impose sanctions against the 'free riders'. The nature of sanctions are not arbitrarily decided by the *Samiti*, but are according to the expressed wishes of the users of the resource(s).

Besides this the role of the community facilitator also involves explaining to the members of the village community the aims and objectives of other development projects (if any) related with the project. Lastly he/ she also helps in planning and construction phase of the project.

As argued above, due to the presence of an outside agencies ( whose role was not only to trigger of participation but also to sustain it) different level participation can be seen in Aamwala village. However, before discussing different level of participation it is essential to know, what do we mean by participation.

Participation in resource management basically means taking part or sharing. In development context, it goes further with implications as to who shares with whom and in what context?. Thus it can be explained as an 'empowering process, which enables local people to make their own analysis,

to take command, to gain confidence, to make their own decisions'(chambers:1995:65). Therefore, generally in the context of third world and particularly in the case of India, reversing power relations is the key to achieving participation. This is essential because, colonial British government in order to earn revenue usurped the traditional rights of the people over the Common Pool Resources and brought them under control of the colonial administration. Rights of the locals using the resources were very ambiguously defined. The same policies were followed by the Indian government after, 1947. These policies finished off the sense of ownership from the communities and they also started exploiting the resources at an unsustainable limit along with the State.(For details see Guha, 1989 ) Therefore, in order to achieve participation the traditional rights of the people over the resources has to be granted.

### **Levels of Participation**

#### a) RATIFICATION PARTICIPATION

Participation for some villagers means attending meeting. In Both the projects under study, participation for numerous villagers meant attending meeting endorse to what had already been planned by the outsider (community facilitator or technical expert.) In such meetings the 'dominant' view of those who 'knew' ((community facilitator or *Samati* members. The latter are also heavily influenced by well-articulated project Staff) prevailed.

## b) LABOUR PARTICIPATION

Participation for some members of the village community may mean contributing free labour (Shramdan) for the objectives of the institution formed. These people come forward to participate in the objectives of the project because of expected benefits and their participation is mostly restricted to project implementation stage. They are only concerned with the collective action for implementing the decisions already taken. This group does not seem to have any sense of self-responsibility.

## c) MONETARY PARTICIPATION

Participation for some in the community may be in the form of monetary contribution, often compensating for any voluntary labour required by the project. Such members of the community often belong to the service industry and they happen to participate because they reside in the project area and expect to derive benefits from the project. The expected benefit may force them to contribute monetarily for others who are not ready for this nature of participation because of certain reason (a day of Shramdan may rob them off one-day wage income.) This is simple cost and benefit analysis where they contribute for others because delay in the project means delay in the expected benefits of the projects. This group of participants also do not identify themselves with the collective decision making role of the institution.

#### d) EFFECTIVE OR IDEAL PARTICIPATION

The highest or 'effective form of participation appears to be 'self-organisation', 'self responsibility' 'self-actualisation', which results in empowerment of the people concerned' (Malika Samaranayke: 96:43). This means that any effective participation in planning for natural resource development conveys some interrelated ideals.

- Joint information generation and analysis (between the community and if any outside agency is involved) .The result of this generated knowledge is suppose to help in making decisions which is complimentary to local needs and implement sustainable changes in the local resource system. These ideals should not be set accordingly to any external agenda, but by taking into account the specific socio- economic and environmental factors of the area concerned.
- Ability to take independent initiatives in future in order to solve any conflict between the co-users as well as maintaining the resource system under consideration.
- A sense of self-responsibility and sense of ownership should be there about the resource system concerned. If these senses do not prevail then any contribution of labour as well as financial contribution towards the objective of the project would be for very short run, i.e till the implementation stage.

Thus, we can conclude that any self-governing institutions can only be successful, when such institutions help in evolving effective participation. We already know that effective participation can lead to empowerment and thereby reverse the existing power relationship. Moreover, any such institution not allowing this kind of participation to evolve will not do away with the sense of alienation which has cropped up due to the past policies of the government with regards to common pool resources.

Therefore having explained the ideal participation and its relationship with empowering self governing institutions, this study will go on to examine the project under study on following parameters in order to judge the nature of participation

- Does this kind of participatory approach produce an adequate knowledge base for project design and implementation?
- Whether the participation evolved is out of sense of community ownership or is just a labour participation or monetary participation.
- Does the self governing institutions have any mechanisms for resolving social conflicts

Thus by analysing the nature of participation on the above-discussed counts, we can discern to what extent the institutions formed were successful and on what counts they were lacking so as to empower the people in the real sense.

KNOWLEDGE BASE

In participatory approach, it is crucial that the knowledge of those to be empowered be allowed to shape the project design. During the field trip, it was noted that people of Aamwala did have an impression that they were having an equal say in shaping of the project scheme. This was because they decided about the water source to be selected based on their 'traditional wisdom' and the places at which the public tap should be placed. They also endorsed the technical information provided by the project staff about the construction technology and hardware for the supply system. This was essential for them because of the limited knowledge they have with respect to the required technology. It can be argued that participation does mean joint information generation and analysis. But, what was disturbing was --that villagers have little or rather did not even give a thought to environmental problems. The concern of the project staff was very narrow i.e which can be addressed by chlorinating the source. The responsibility of the conservation of the catchment and intake area is assigned to the community without providing information about what constitute a catchment area and how the community is going to conserve it. Furthermore, the *Samati*/ villagers or the NGO concerned have any idea about the effect of this water appropriation on the water table and effect of the decrease (if there is any ) of water table on the agricultural fields. They are also ignorant about the time span this water source will last.

It can be said (retrospectively) that the beneficiary community in Aamwala have come to share a single minded interest of their development partners in extracting water without giving any due respect to the environment.

### LABOUR MOBILISATION

The mobilisation of unpaid labour and of financial contribution from beneficiaries is a central element of this participatory development project. The project requires 1% of the total cost to be contributed in cash and 9% of the total cost to be contributed as labour. During the implementation stage, as it was pointed out earlier that mobilisation of unpaid labour especially women created serious problems –problem for both project implementation as well as livelihood activities of participatory household. This was because most of the villagers work as wage labourers. This would have meant voluntary labour at the expense of their day income. Moreover, contrary to the project intention to support the poor in particular, its funding policy favours villagers with higher and secure incomes who can afford to pay daily wages to workers who labour for the projects in their place, while they pursue their livelihood activities. Despite initial euphoria about community commitment and participation, people in Aamwala reported that it was difficult to motivate everyone to fulfil their labour requirements. Only around 425 days of voluntary labour was provided. This was only 11.16% of the total voluntary labour estimated. The *Samati* members had to exert continuous social pressure, mostly without success to get their neighbours to –pay up or show up..Some of this extra cost was borne by some well off individual household. To meet the contingency 0of

labour mobilisation stress, money was diverted from the development funds as noted in the last chapter.

### SOCIAL CONFLICTS

Any ideal self-governing participatory institutions demand a mechanisms for resolving social conflicts. In Aamwala we find that water pipes are located on private and government land. It is true that some of the villagers were very co-operative when the pipeline was being laid. They even allowed to dig trenches in their agricultural fields even at the expense of their crops. No one can be sure what will happen to if conflict occurs between different beneficiaries and one decides to cut off the pipeline passing through his fields. Beside intra-village conflict, conflict can also arise between two or more villages because, Aamwala being at the tail end, people from other uphill village may also indulge in water theft, particularly during the summer months. Further there is no ready plan prepared for imposing sanctions, if one refuses to pay the maintenance cost. Therefore, we discern that project design itself renders all of its participants unprepared for social conflicts.

Therefore, it is amply clear that the people of Aamwala have formed a participatory institution, but their participation is limited to ratification participation (where they invariably endorse the dominant view) and monetary participation (most of them have contributed their monetary share) only. The project seem to be wanting on labour participation. This was not forthcoming because of the economic condition of the participants. It is yet another case



where outside knowledge is imposed on the locals by urban, well articulated project staff. Due to this villagers have come to share the same dominant idea of appropriating water without taking into account the social and environmental condition of the production of water. They have not only inadequate knowledge about the environmental and social problem but also lack knowledge on ways and means to sustain participation and punish the 'free riders'. Regardless the nature of its participatory approach, the project is ill prepared to resolve social conflicts over resources proactively and constructively. Thus this project, though providing water to the villages, has not by any measure empowered the participants to any significant extent.

The positive aspects of the project are as follows:

- Despite its lacunae and shortcomings, it is able to provide drinking water.
- This has enabled the women to save a lot of time and use their energies in other related development projects.

### JALAGAM

This section of the study is informed by the experience of the *Jalagam* project. It argues that the means adopted to engender local participation for management of Common Pool Resources, instead of transforming bureaucratic planning and implementation, constructed the village society in the image of

externally defined project priorities. However, it adopted a new participatory instrument with which to do so.

### KNOWLEDGE BASE

Ideally, any project should not have a set of pre-conceived idea to transfer but must respond to people's ideas about livelihood needs. We find however, that these ideas (including livelihood constraints) are significantly determined by the project concerned. The notion of participatory development in the *Jalagam* project meant silent and inactive local community acted upon by top-down planners in which local people are made to come forward to take charge of their development planning *benevolently* entrusted to them by a re-oriented State. This approach fails to take into account the ways in which project participants actively re-interpret, negotiate and manipulate the developmental interventions in pursuit of locally defined social and political goals.

Therefore, what we discern from the *Jalagam* project was that that the whole project was not designed as village-specific but region-specific, thereby ignoring the socio-economic conditions of the village concerned. The state government, through the employees of the Forest Research Institute (FRI) carried out a participatory appraisal event in order to generate knowledge base and to identify problem areas. The involvement of community facilitator, who incidentally was a government official, brought legitimacy to the project. This exercise was carried out with the help of *Samiti* members who were relatively

more articulate and better exposed to the **outside** world. This gave a position of authority to the *Samiti* members. Therefore, it went on to create a new set of village elite, different from the 'political elite', who mediated between the government and the villagers. The *Samiti* members acted as if they were bestowing some personal favour in distributing benefits (subsidised pressure cookers, *gobar* gas plants, etc.). This resulted in a muted response of relatively subordinate social groups, people from distant hamlets (people resident in the upper Aamwala region) and especially amongst the women and the youth.

As pointed out in the last chapter, there was no effort from the project staff to take the traditional wisdom into account while carrying out afforestation. Moreover, people did not find this new *Samiti* any different from the old *panchayat*. Though they recognised the efforts of the state government, they think that it is the State's duty to provide them with such benefits. Therefore, this policy measure is not catalysing any sense of participation amongst the users of Common Pool Resources.

### MOBILISATION

The project did not envisage any labour mobilisation or monetary contribution from the user group. The aim was to motivate the people through education so as to keep the appropriation of the Common Pool Resources within sustainable limits. This limit would have prevented deforestation and consequent soil erosion. The strategy of the project design for mobilising people was through showing the benefits of the project. This included increase

in agricultural production by controlling soil erosion and facilitating collection of fuel wood and fodder/ grass within the village which would enable the womenfolk to avail of the chance of enrolling in some professional educational course (also a part of the project). These mobilisation techniques were the result of pre-conceived definition of the problem and a pre-determined set of policy measures to deal with it which in turn were region-specific and not village-specific. For instance, the project identified soil erosion and water conservation as essential livelihood concerns. The loss of soil fertility was indeed a major cause of declining agricultural productivity in the area. Hence, the focus of the project was geared towards controlling it. The emphasis on the above ignored the fact that there are very few households in the village who are engaged in agriculture. The majority of the population is wage-labourers. If wage-labourers had been given a more central place in the analysis of livelihood, some other kind of intervention may have been designed. This flaw in understanding of the problems of the village alienated the majority of villagers and they were unable to identify themselves as participants in the project.

Furthermore, the professional courses conceived for women such as stitching and knitting did not attract anybody. A more relevant idea would have been training the women to setup seedling nurseries which would have fetched them immediate returns as well have given a sense of involvement in the whole project.

## SOCIAL CONFLICT

The project design did not have any mechanism for resolving any conflict that may arise as a result of 'free-riding'. The only means occasionally used is to socially humiliate the 'free-rider'. The *Samiti* itself is now recognised as a body, which can dispense favours which in itself is a cause for considerable heart-burn.

The experience of *Jalagam* clearly tells us that any top-down planning model which tries to transfer a set of technology and ideas and does not take the specific socio-economic conditions into consideration, is bound to be a failure with respect to evolving and sustaining participation. Participation in *Jalagam* was limited to merely endorsing the project scheme told to the villagers in well-articulated and highly technical language. The people of Aamwala did not recognise the project as their own at any stage of the project. This is proven by the fact that— there was a disjunction between right and duties. The people thought that it was their right to collect subsidised items provided by the project but invariably ignored their duties demanded by the project. This went on to weaken any remote chance of a shift towards decentralisation or participation in the village development administration. The participatory practise was moulded and made compatible with the established planning system rather than moulding the latter to make it compatible with the former.

This kind of self-governing institutions where the decisions are taken by outsiders and the local community has only a minimal role to play in the conception and implementation of the project does not stand out as a viable model for engendering participation on development administration and the empowerment of village communities. Moreover, such project designs also undermine significant components of the design itself. For instance, empowerment of women of the village was a part of the project design but very little concrete result emerged from the project on this front.

## CONCLUSION

In the recent years, development agencies and researchers have paid increasing attention to the state of community owned resources or Common Pool Resources. Unfortunately, Common Pool Resources have come under increasing scrutiny when much physical degradation has already taken place. As we already know that the defining characteristics of such resources are non-excludability, while the benefits accruing from them are subtractive (Chopra: 90:34). Non-excludability means that there is well-defined group of users and the resource is open to appropriation by everybody and is also subtractive.

The de-gradation of the Common Pool Resources is inevitable when resource unit withdrawn exceeds the sustainable limit. This limit is invariably exceeded because of the ambiguity concerning the property rights. Therefore, it has been suggested either to privatise the resource or put it under the control of any centralised agency/State.. We have already discussed the shortcomings of the first two approaches and tried to prove through the existing literature and field studies of other authors that self-managed institutions are the viable means to manage Common Property Resources sustainably, besides giving maximum advantage to the rural poor and particularly women.

The experience of the field trip clearly tells us that participatory institutions do bring benefit to the users. However, when the level of participation is limited to contributing free labour, making financial contribution or endorsing the decisions already taken, the benefits are limited

because, this kind of participatory institution does not empower the beneficiaries. As we already know the essence of effective participation is empowering the locals which enables them to do their own analysis, take command, gain confidence and make their own decisions. This nature of effective participation was not observed during the course of the field trip. This is because of the fact that every development plan is clothed in a set of ideology or belief. This kind of mobilisation of locals is clothed of what R. L. Stirrat calls 'Neo-Orientalism' (Stirrat:96:37)

Stirrat argues that Orientalism was a part of the legitimating structure of colonial domination because East was caught in a timeless past and the progressive colonial power had a duty to rule. At the same time, Orientalism provided a means through which rulers knew and ordered the rule. Similarly 'Neo-Orientalism' view of rural society in part of continuing relationship of power and control in which the rural population in all its form is depicted as in need of protection and mobilisation through the action of outsiders. Yet this relationship is presented as its opposite. In effect such a vision of rural society, where the poor rural people are waiting to be empowered, justifies activities of outside agencies. The role of outside agency particularly a developmental NGOs is to assist rural people to get empowered.

The nature of participation seen during the course of field trip, i. e. ratification participation, labour participation, and monetary participation, albeit they are also essential of participation, but they fall far behind effective participation. This raises the question: how to make the existing level of



participation into 'effective participation' so as to empower the locals in the real sense?

Effective participation could be evolved by the catalyst agency (a NGO or centralised agency) by becoming accountable to the beneficiaries. For instance if a catalyst agency is a NGO – it tends not to be responsible to their members or to those they are supposed to assist, but they are accountable to their donors. In order to continue to be funded, NGOs have to satisfy the criterion of their donors rather than the needs of the participants. Therefore, when an NGO or a government agency tries to implement a participatory project through a pre-determined policy package, it never tries to understand the basic processes, which give rise to poverty subordination and subjugation. By focussing on parts - the 'poor', 'women', it ignores the structure and process, which generates marginalisation and subjugation.

For instance, the *SWAJAL* and *JALAGAM* project indeed gave benefit to the women folk of the area, since they were able to save their time which previously was devoted elsewhere ( fodder and fuel-wood collection, fetching water etc) The time thus saved was (supposed to be) invested in learning stitching and knitting. The project envisaged that this would result in empowerment of womenfolk. However, interestingly, the first phase was to include typically 'womanly' activities such as stitching and knitting, which will again confine their activities to their house . This will only allow them to earn (if at all ) only a very meagre sum. Therefore, instead of this some professional course could have been taught which might have allowed them to earn

substantial part of their livings. This would have resulted not only in the empowerment of the womenfolk but also their emancipation from daily household chores.

In order to permeate a sense of involvement and sense of ownership in the users with regards to resource concerned, it is essential that knowledge should not be treated through dichotomous categories – ‘indigenous knowledge’ and ‘expert knowledge’. Stirrat argues that there is no one indigenous knowledge but rather competing knowledge. What happens in normal course of project implementation is, that they are made to exist in isolation. Instead, they should rather exist in terms of mutual inter-relationship. It is only through mutual exchange of knowledge, a synthesis is reached, which is not only beneficial for the concerned project, but it also gives a real sense of self-responsibility and self-actualisation.

Self-decision mechanism is the key to ‘effective participation’. Therefore an outside agency whether it is the government or the NGO should never decide about the quantity and nature of community contribution, nature of monitoring, how to carry out the task of operation and maintenance,, the time frame of the project., etc

Furthermore, the property status of the community owned system should not be symbolic, but well defined. For instance in the *JALAGAM* project, the definition of property rights was very ambiguous. Therefore, people were very eager to claim their benefits, which they considered as their rights. but failed to

render their corresponding duties. This disjunction between rights and duties was there because no sense of ownership was there with regard to the resources concerned. Rights and duties can only be complimentary when the villagers think that they own the resource in question.

This study is of the view that 'effective participation' was stalled because of the above-discussed lacunas in the project. What was witnessed was top-down participation in the form of ratification participation, labour participation and monetary participation. This nature of participation exists because the village society was construed in an externally defined reality. The institutions so formed can only be self-governing in true sense only if the participation can be made effective. Participation in any such institutions can be made effective only if the following conditions are met:

- If a centralised agency or a NGO is involved, it should be accountable to the beneficiaries and not to their external masters/financers..
- Structure and process that generate poverty, subjugation and exploitation of the village community members should be clearly identified. This will not only help in the proper implementation of the project but will also enable to resolve social conflicts.( if any)
- Knowledge base should not be made dichotomous – 'indigenous knowledge' versus 'expert knowledge'. Both should learn from each other and arrive at a synthesis.

- Majority of the decisions, except which do not require scientific and technical knowledge should be taken by the users.
- Property rights should be clearly defined in order to avoid any friction between duties and rights.

This study is of the view that if the above suggestions are inherently built into any project design, only then any self-governing institutions will be able to evolve 'effective participation'. This will go a long way in serving the twin purposes of empowering the local communities and ensuring long term and sustainable participative management of our fast depleting natural resource system.

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