

**SOCIAL DETERMINANTS OF SMOKELESS TOBACCO USE
IN THE INDIAN POPULATION**

**Thesis submitted to the Jawaharlal Nehru University for the award of
the degree of
DOCTOR OF PHILOSOPHY**

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DECLARATION

I, hereby declare that the thesis entitled "Social Determinants of Smokeless Tobacco Use in the Indian Population" submitted to Jawaharlal Nehru University by me for the award of the degree of Doctor of Philosophy is my original work and it has not been submitted in part or full for the award of any other degree of this university or any other university.

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CERTIFICATE

We recommend that this thesis be placed before the external examiners for evaluation for the award of the degree of Doctor of Philosophy.

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To
My Parents
&
Parents - in - Law

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List of Acronyms

- AMD – Age-related Macular Degeneration
- ASI – Annual Survey of Industries
- ATC – American Tobacco Company
- BAT – British American Tobacco
- BITC – British India Tobacco Corporation
- CBI – Central Bureau of Investigation
- CDC – Centers for Disease Control and Prevention
- CHD – Congestive Heart Disease
- CII – Confederation of Indian Industries
- CMDR – Centre for Multi-Disciplinary Development Research
- CoP – Conference of Parties
- COPD – Chronic Obstructive Pulmonary Disease
- CoSL – Committee on Subordinate Legislation
- COTPA – Cigarettes and Other Tobacco Products Act
- CPI – Communist Party of India
- CPI (M) – Communist Party of India Marxist
- CSR – Corporate Social Responsibility
- CTFK – Campaign for Tobacco Free Kids
- CTRI – Central Tobacco Research Institute
- CVD – Cardio Vascular Disease
- DALY – Disability Adjusted Life Years
- DGP – Director General of Police
- DNA – Deoxyribose nucleic Acid
- DS – Dharampal Satyapal
- EIC – East India Company

FCRA – Foreign Contribution Registration Act

FCTC – Framework Convention on Tobacco Control

FCV – Flue Cured Virginia

FICCI – Federation of Indian Chambers of Commerce and Industry

FMCG – Fast Moving Consumer Goods

FSSA – Food Safety and Standards Act

GATS – Global Adult Tobacco Survey

GBD – Global Burden of Disease

GDP – Gross Domestic Product

GHW – Graphic Health Warning

GST – Goods and Services Tax

GTMC – Guntur Tobacco Marketing Committee

GTSS – Global Tobacco Surveillance System

GYTS – Global Youth Tobacco Survey

HBV – Hepatitis B Virus

HCC – Hepatocellular Carcinoma

HCV – Hepatitis C Virus

IARC – International Agency for Research on Cancer

IB – Intelligence Bureau

IBM – International Business Machines

ICMR – Indian Council of Medical Research

ICTC – Indian Central Tobacco Committee

ICU – Intensive Care Unit

IDRC – International Development Research Centre

IHME – Institute of Health Metrics and Evaluation

IIPS – Indian Institute of Population Studies

ILTD – Indian Leaf Tobacco Development Corporation

INR – Indian Rupee

IPF – Idiopathic Pulmonary Fibrosis

IPS – Indian Police Service

ISO – International Standards Organisation

IT – Information Technology

ITA – Indian Tobacco Association

ITC – India Tobacco Company

JHSPH – Johns Hopkins School of Public Health

LIC – Life Insurance Corporation

LPG – Liberalisation Privatisation Globalisation

MGNREGA – Mahatma Gandhi National Rural Employment Guarantee Scheme

MNC – Multi-national Company

MoHFW – Ministry of Health and Family Welfare

MP – Member of Parliament

MSP – Minimum Support Price

NCD – Non-Communicable Diseases

NCI – National Cancer Institute

NCR – National Capital Region

NFHS – National Family Health Survey

NGO – Non-Governmental Organisation

NICPR – National Institute of Cancer Prevention and Research

NNN – Nitroso nornicotine

NRT – Nicotine Replacement Therapy

NSSO – National Sample Survey Organisation

NTCP – National Tobacco Control Programme

PAHs – Polycyclic Aromatic Hydrocarbons

PFA – Prevention of Food Adulteration

PHFI – Public Health Foundation of India

PTC – Peninsular Tobacco Company

R & D – Research and Development

RMD – Rasiklal Manikchand Dhariwal

SC – Supreme Court

SDH – Social Determinants of Health

SHG – Self Help Group

SIDS – Sudden Infant Death Syndrome

SLT – Smokeless Tobacco

SPSS – Statistical Product and Service Solution

STA – Smokeless Tobacco Association

STC – State Trading Corporations

SUUTI – Specified Undertaking of the Unit Trust of India

TB – Tuberculosis

TFI – Tobacco Free Initiatives

TII – Tobacco Institute of India

TRDP – Tej Ram Dharam Paul

UAE – United Arab Emirates

UK – United Kingdom

UP – Uttar Pradesh

USA – United States of America

USDHEW – US Department of Health, Education and Welfare

USDHHS – US Department of Health and Human Service

UT – Union Territory

VHAI – Voluntary Health Association of India

WHO – World Health Organisation

Glossary of Terms

Adenocarcinoma – A malignant epithelial tumour arising from glandular structures, which are constituent parts of most organs of the body. The term is also applied to tumours showing a glandular growth pattern.

Adipose Tissue – Fibrous connective tissue packed with masses of fat cells. It forms a thick layer under the skin and occurs around the kidneys and in the buttocks.

Adults – Aged 15 or above

Analogy – If a factor is a cause of a disease, we would expect the risk of the disease to decline when exposure to the factor is reduced or eliminated.

Anorectal Atresia – Congenital defect presented by faulty separation of the rectum and urogenital system or failure of the anal membrane to rupture.

Areca nut – Areca nut is obtained from the fruit of the Areca catechu tree. The outer pericarp of the ripe fruit, which is orange-yellow, is removed to separate the nut, which is used fresh in Kerala, Karnataka, West Bengal and Assam and after sun-drying, curing or baking elsewhere in India.

Asthma – The condition of subjects with widespread narrowing of the bronchial airways, which changes in severity over short periods of time; and leads to cough, wheezing, and difficulty in breathing.

Atherogenic – Related to arteries

Attrition – is a physiological or mechanical wearing down of a tooth due to contact of another tooth as during mastication in old age. There develops flattening of an incisal edge.

Bajjar – Dry Snuff

Betel leaves – Betel leaves are an indispensable part of paan. The betel vine is a creeper, and it is often grown next to areca-nut trees, which provide support, or on wooden scaffoldings.

Bidi – It is made by rolling a dried, rectangular piece of temburni leaf (*Diospyros melanoxylon*) with 0.15 – 0.25 g of sun dried, flaked tobacco into a conical shape and securing the roll with a thread.

Calculus – is an adherent calcified or calcifying mass that forms on the surface of natural teeth and dental prosthesis.

Cancer – It arises from the abnormal, purposeless, and uncontrolled division of cells that then invade and destroy the surrounding tissues.

Carcinogen – Any substance that, when exposed to living tissues, may cause the production of cancer.

Cheroot – It is like a cigar with two closed ends.

Chillum – The chillum is a straight, conical pipe made of clay, 10-14 cm long.

Chronic Obstructive Pulmonary Disease (COPD) – A disease of adults (over 45) with a history of smoking or inhalation of airborne pollution, characterised by airflow obstruction that is not fully reversible. The disease has features of emphysema, chronic bronchitis and asthmatic bronchitis.

Chutta – A hand-rolled cigar smoked in reverse with the lit end inside the mouth. The name chutta in Telugu (spoken in Andhra Pradesh) may have come from the Tamil (spoken in Tamil Nadu) word shruttu, meaning ‘to roll’.

Cleft lip – The congenital deformity of a cleft in the upper lip, on one or both sides of the midline. It occurs when the three blocks of embryonic tissue that go to form the upper lip fail to fuse and it is often associated with a cleft palate.

Cleft palate – A fissure in the midline of the palate due to failure of the two sides to fuse in embryonic development.

Club-foot – A congenital deformity of one or both feet in which the patient cannot stand with the sole of the foot flat on the ground. In the most common variety the foot points downwards, the heel is inverted and the forefoot twisted.

Coherence of Association – If a relationship is causal, we would expect the findings to be consistent with other data.

Colonisation – is a process by which a central system of power dominates the surrounding land and its components. Colonial India was the part of the Indian sub-continent that was under the jurisdiction of European colonial powers during the Age of Discovery. European power was exerted both by conquest and trade.

Colorectal Cancer – Malignancy of the large intestine.

Confidence interval – The range of possible values within which true population value could lie with a known degree of probability.

Congenital – Describing a condition that is recognised at birth or that is believed to have been present since birth. Congenital malformations include all disorders present at birth whether they are inherited or caused by an environmental factor.

Consistency of Association – If the relationship is causal, we would expect to find it consistently in different studies and in different populations. Replication of findings is particularly important in epidemiology. If an association is observed, we would also expect it

to be seen consistently within sub-groups of the population and in different populations, unless there is a clear reason to expect different results.

Coronary Artery Disease or Coronary Heart Disease – involves narrowing of arteries supplying the heart muscles due to fatty deposits (atherosclerosis) in the coronary arteries.

Counterfactual – The product of an excursion into imaginary or fictional history; a speculation about alternative outcomes or versions of events.

Craniosynostosis – Premature fusion of some of the cranial bones, usually before birth, so that the skull is unable to expand in certain directions to assume its normal shape under the influence of the growing brain.

Crypt – Small sac, follicle or cavity; for example, the crypts of Lieberkuhn, which are intestinal glands.

Cultural Imperialism – The imposition by one usually politically or economically dominant community of various aspects of its own culture on to another, non-dominant community.

Current Smokeless tobacco user – Person who currently uses any smokeless tobacco product, either daily or occasionally

Current Smoker – Person who currently smokes any tobacco product, either daily or occasionally

Dhumti – It is a kind of conical cigar made by rolling tobacco in the leaf of a jack-fruit tree (*Artocarpus integrifolia* L.), occasionally in a dried leaf of a banana plant (*Musa paradisiaca* L.) or in the green leaf of a hansali plant (*Grewia microcos* L.).

Dose- Response Relationship – As the dose of exposure increases, the risk of disease also increases.

Dry Socket – is a postoperative complication of the extracted tooth. It can develop when infected clot gets dislodged leaving the socket in an infective state. Dry socket is extremely painful and healing of such wound is slow.

Dysplasia – is an abnormal formation of cells of a particular tissue. Dysplasia is characterised by a proliferation of cells with altered nucleus size and shape. Dysplasia can vary in grade. Not all dysplasias are associated with malignancy.

Ectopic Pregnancy – The implantation of a fertilised egg cell at a site outside the uterus. This may happen if the fertilised egg cell remains in the ovary or in the fallopian tube or if it lodges in the free abdominal cavity.

Environmental Tobacco Smoke (ETS) – is a complex mixture of chemical constituents and particulates released into the atmosphere from the burning tip of a cigarette, pipe or cigar including the smoke exhaled by the smoker.

Epistemology – That branch of philosophy which deals with the theory, nature, scope and basis of knowledge, or which investigates the possibility of knowledge itself.

Erectile Dysfunction – Inability in a male to obtain and/or maintain a penile erection to enable vaginal penetration for sexual intercourse.

Erythroplakia – is a lesion of oral mucosa presenting as bright red, velvety plaque which cannot be classified as any other disease.

Gastroschisis – A congenital defect in the abdominal wall, which during foetal development fails to close to the right of a normal umbilical cord.

Gudakhu – A paste made of tobacco and molasses.

Gul – A pyrolysed tobacco product

Gutka – Mixture of tobacco, crushed areca nut (also called betel nut), spices, and other ingredients.

Hairy or Coated Tongue – is an unusual condition characterised by hypertrophy of filiform papillae of tongue. Normally keratinised surface layers of filiform papillae are continuously desquamated due to friction of food and anterior upper teeth. These are replaced by new epithelial cells from below. When tongue movements become restricted during illness, the papilla enlarges and becomes heavily coated. Tobacco smoke colours it black.

Halitosis – Bad breath or Oral Malodour. Oral bacterial decay of food and residual debris causes formation of volatile sulfur compounds which are responsible for bad breath.

Hepatocellular – Relating to or affecting the cells of the liver.

Hukkah – Hubble- bubble or narghile. Hukkah is written as hukkah or hookah as well. Hukkah has been used uniformly unless where anecdotes and historical records are mentioned. The hukkah is an Indian water pipe.

Hypoxia – Deficiency of oxygen in the tissues

Ideology – The term is very widely used in the social sciences as a whole to describe a distorted or illusory form of thought which departs from a criterion of objectivity. It is also used to describe, usually in negative terms, the world-view or collective beliefs and attitudes of a class or social group.

Idiopathic – Denoting a disease or condition the cause of which is not known or that arises spontaneously.

Idiopathic Pulmonary Fibrosis – It is a serious interstitial lung disease, characterised by progressive fibrous scarring of the lung and increased numbers of inflammatory cells in the alveoli and surrounding tissues. The clinical symptoms include worsening breathlessness, clubbing of fingers or toes. The clinical signs include inspiratory crackles at the lung bases on auscultation, bilateral radiographic shadowing predominantly in the lower zones of chest X-

ray, subpleural honeycomb change on CT scanning of the chest, and restrictive lung function on spirometry.

Inequity – the fact that a situation is not fair, or something that is not fair in situation.

Inflammation – Body's response to injury, which may be acute or chronic. Acute inflammation is the immediate defensive reaction of tissue to any injury, which may be caused by infection, chemicals or physical agents. It involves pain, heat, redness, swelling and loss of function of the affected part. In certain circumstances healing does not occur and chronic inflammation ensues.

Khaini – Mixture of sun-dried tobacco and slaked lime.

Larynx – is a hollow tube with a flap of epiglottis protecting the airway from aspiration of food material. Highly mobile vocal cords function in phonation.

Leucoplakia – is a premalignant condition. It occurs as a white patch over mucous membrane of lip, hand and soft palate, floor of mouth and gingiva.

Leukoedema – is a white lesion of oral cavity which clinically resembles early leukoplakia. It exhibits a greyish white folded opalescent appearance. Since it is a variant of normal mucosa, it does not require any treatment.

Life expectancy – Life expectancy is the expected value of the lifetime in years of an individual in a given group at birth.

Macular Degeneration – A group of conditions affecting the macula lutea of the eye, resulting in a reduction or loss of central vision.

Meta-analysis – A statistical technique for combining and analysing the results of a number of different studies on the same topic to enable identification of trends and patterns and more accurate estimation of significant effects.

Mishri – Roasted, powdered preparation made by baking tobacco on a hot metal plate until it is uniformly black.

Mutation – A change in the genetic material of a cell, or the change this causes in a characteristic of the individual, which is not caused by normal genetic processes.

Neonatal – Period of 28 days after birth

Nicotine Stomatitis – Smoker's patch develops on palate in heavy smoker. Lesions are limited to smoke area. To start with mucosa is reddened but becomes greyish white. It is thick and fissured. If smoker stops smoking, lesion is reversible. It has no precancerous potential.

Oesophagus – is a tubular structure which starts at the lower end of the oropharynx. It descends through the lower part of the neck, and enters the thorax through its inlet.

Organised Tobacco Industry – In this thesis, organised tobacco industry included tobacco companies that are registered with Government of India or their state governments.

Paan – Betel Quid

Paan Masala – Paan Masala is a commercial preparation containing areca nut, slaked lime, catechu and condiments, with or without powdered tobacco.

Perinatal – Relating to the period starting a few weeks before birth and including the birth and a few weeks after birth.

Pharmacotherapy – Nicotine replacement therapy (NRT) or Prescription medication (such as Bupropion) used to support cessation of tobacco use.

Pharynx – is a median passage that is common to the alimentary and respiratory systems. It is divisible (from above downwards) into a nasal part (or nasopharynx) into which the nasal cavities open; an oral part (or Oropharynx) which is continuous with the posterior end of the oral cavity; a laryngeal part (or laryngopharynx) which is continuous in front with the larynx and below with oesophagus.

Placenta Previa – A condition in which the placenta is situated wholly or partially in the lower and noncontractile part of the uterus. When this becomes elongated and stretched either before or during labour, placental separation and haemorrhage will occur.

Plausibility – Biologic plausibility refers to coherence with the current body of biologic knowledge.

Polyp – A growth, usually benign, protruding from a mucous membrane.

Preterm Delivery – Birth of a baby before 37 weeks of gestation (calculated from the first day of the mother's last menstrual period).

Prevalence – The term prevalence refers to the number of existing cases of a disease or condition in a population at some designated point of time or period of time.

Psychotropic – Adjective that describe drugs that affect mood. Anti-depressants, Sedatives, CNS stimulants, and antipsychotics are psychotropic.

Rheumatoid Arthritis – The second most common form of arthritis (after Osteoarthritis). It typically involves the joints of the fingers, wrists, feet, and ankles, with later involvement of the hips, knees, shoulders, and neck. It is a disease of the synovial lining of joints; the joints are initially painful, swollen and stiff and are usually affected symmetrically.

Ryotwari System – One of the three principal methods of revenue collection in British India. It was prevalent in most of southern India, being the standard system of the Madras Presidency (A british controlled area – now constituting much of present day Tamilnadu and portions of neighbouring states). The system was devised by capt. Alexander Read and Thomas Munro at the end of the 18th century and introduced by the latter when he was

governor (1820-27) of Madras (now Chennai). The principle was the direct collection of the land revenue from each individual cultivator by government agents. For this purpose all holdings were measured and assessed according to crop potential and actual cultivation. The advantages of this system were the elimination of middlemen, who often oppressed villagers, and an assessment of the tax on land actually cultivated and not merely occupied. Offsetting these advantages was the cost of detailed measurement and of individual collection. This system also gave much power to subordinate revenue officials, whose activities were inadequately supervised.

Second Hand Smoke (SHS) – Inhalation of smoke from smoked tobacco products used by others.

Sinusitis – is a generalised inflammation of paranasal sinuses mucosa. Cause may be allergic, viral or bacterial. It causes blockage of drainage and thus retention of sinus secretion. It may be caused by extension of dental infection.

Smoked tobacco includes: manufactured cigarettes, hand-rolled cigarettes, bidi pipes full of tobacco, cigars/ cheroots/ cigarillos, hookah, and any other reported smoked tobacco products.

Smokeless tobacco includes: betel quid, khaini, gutkha, snuff, paan masala, and any other reported smokeless tobacco products – which are eaten, chewed, applied orally or inhaled.

Social Epidemiology – Branch of Epidemiology that studies the social distribution and social determinants of states of health.

Specificity of Association – An association is specific when a certain exposure is associated with only one disease. This is weakest of guidelines and tobacco manufacturers have pointed out that the diseases attributed to tobacco use do not meet this requirement of the Hill's Criteria; because tobacco use has been linked to several diseases.

Still Birth – Birth of a foetus that shows no evidence of life (heart-beat, respiration, or independent movement) at any time later than 24 weeks after conception.

Strength of Association – The strength of Association is measured by the relative risk (or ODDS ratio). The stronger the association, the more likely it is that the relation is causal.

Temporal Relationship – If a factor is believed to be the cause of a disease, exposure to the factor must have occurred before the disease develops.

Tobacco Products – All types of tobacco products which can be categorised into:

Tooth Abrasion – is wearing away of tooth structure from friction of a foreign object. Habitual cigar holder may cause abrading of an incisal edge.

Tuberculosis – An infectious disease caused by the bacillus *Mycobacterium tuberculosis* and characterised by the formation of nodular lesions (tubercles) in the tissues. In Pulmonary

tuberculosis – the bacillus is inhaled into the lungs where it sets up a primary tubercle and spreads to the nearest lymph nodes.

Unorganised Tobacco Industry – In this thesis, unorganised tobacco industry included tobacco companies that are not registered with Government of India or their state governments.

Vasoconstriction – Decrease in the diameter of blood vessels, especially arteries

Xerostomia – is defined as the perception of oral dryness. There is a dryness of mouth and all degrees of dryness occur. It may result in rampant dental caries.

Chapter One

Introduction

Tobacco use and Public Health

Across the globe, all of us are familiar with the word, “Tobacco”. All around the world, more than one-fifth of people aged 15 years and above used tobacco in different forms including cigarette, bidi, hukka, chutta, cigar, cheroot, khaini, gutka, zarda, snus, snuff etc. (WHO, 2018). The use of tobacco has spread like a wildfire. Different forms of tobacco are prepared from tobacco plant grown in different parts of world including some parts of India. There are more than 70 species of tobacco plant (Avery Jr., 1933). Among them the main commercial crop is *Nicotiana tobacum* (ibid). *Nicotiana rustica* is a more potent species which is also used around the world (ibid).

Tobacco smoke contains about more than 7000 harmful chemicals and at least 69 of these chemicals are carcinogenic (USDHHS, 2010). Some of the early concerns on smoking were in 1600s. King James in 1604 wrote on smoking, “Smoking is a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinking fume thereof nearest resembling the horrible stygian smoke of the pit that is bottomless” (Reddy and Gupta 2004, p. 14).

Chinese philosopher Fang Yizhi in 1600 pointed out that smoking “scorches one’s lung” (JHSPH, 2007). King James also wrote on passive smoking, “The wife must either take up smoking or resolve to live in a perpetual stinking torment” (JHSPH, 2007). At first Pearl in 1938 showed an increased mortality in tobacco users as compared to non-users (Pearl, 1938). It was a statistical analysis where Pearl showed some Life Tables and their relation to smoking. The evidence came in 1950s which suggested that cigarette smoking is associated with lung cancer (Cutler, 1955; Study group on smoking and health, 1957). In 1958, first cohort study was published by American Cancer Society which showed that death due to lung cancer was 5 to 16 times higher in heavy smokers as compared to non-smokers (Hammond and Horn, 1958). There were several other studies done worldwide which concluded that cigarette smoking is a risk factor for lung cancer (Doll & Hill, 1954, 1956; Dorn, 1958, 1959). In 1964 US Surgeon General’s report came, which was first authoritative body to state health risks of smoking (USDHEW, 1964).

Since then several studies have been done to establish association between tobacco use and various diseases. The results have shown that tobacco use is a risk factor for various cancers (Lung Cancer, Liver Cancer, Oral Cancer, Colorectal Cancer, Prostate Cancer, Breast Cancer); Respiratory diseases (COPD, Asthma, Tuberculosis, Idiopathic Pulmonary

Fibrosis); Reproductive Health (Pre-term delivery, Low Birth Weight, still-birth, sudden infant death syndrome, perinatal mortality, congenital malformations, spontaneous abortion, erectile dysfunction in males), oro-dental effects, diabetes, decreased immunity and rheumatoid arthritis. Second Hand Smoke or passive smoking also causes cancers, respiratory illness, cardiovascular diseases and adverse reproductive outcomes. Moreover majority of these studies were conducted in developed countries like USA, UK, Germany, France, Denmark and Australia and comparatively the studies done in developing countries are less. Majority of studies are case-control studies followed by cohort studies and very few systematic reviews. The harmful health effects of tobacco use are discussed in detail as follows.

Tobacco use and Oral/ Dental effects including Oral Cancer –

Tobacco use deteriorates oral health significantly (Warnakulasuriya et al., 2010). Tobacco use is most commonly associated with premalignant lesions including oral leukoplakia and erythroplakia, which then transform in to oral cancer, if tobacco use is continued (Warnakulasuriya et al., 2007; Napier & Speight, 2008). Along with cancers of mouth, it also causes cancers of larynx, pharynx, oesophagus and lip (Darby & Walsh, 2003). The other oral effects of tobacco use include impaired taste and smell, halitosis, tooth abrasion, stain, calculus, attrition, hairy or coated tongue, dry socket, delayed wound healing, increased risk of tooth anomalies in babies due to maternal use of tobacco, leukoedema, periodontal disease/gingival recession, nicotine stomatitis, periimplantitis, dysplasia, hyperkeratosis, tooth loss and xerostomia, sinusitis (Darby & Walsh, 2003). The association between tobacco use and oral cancer was first established in 1985 by IARC (International Agency for Research on Cancer). In 1994, a metanalysis was conducted by Gross and colleagues which showed an increased risk for oral cancer among smokeless tobacco users particularly in Southeast Asia (Gross et al., 1995). Studies also showed that there was a dose-response relationship between tobacco use and oral cancer (La Vecchia et al., 1997). Studies have shown that tobacco use has negative impact on periodontal tissue and causes periodontitis in spite of maintaining a good oral hygiene (Kerdvongbundit et al., 2002; Mecklenburg, 1998; Bergstrom, 2006). Tobacco use also results in failure of periodontal therapy, implant therapy and cosmetic treatment due to poor wound healing and results in a bad prognosis (Mecklenburg, 1998).

Tobacco use and Respiratory Disease –

Tobacco use is one of the major risk factors for respiratory diseases which are leading causes of global premature mortality. One of the major threats to lung health is indoor air pollution and tobacco smoke constitutes major part of indoor air pollution. It is estimated that every year, second-hand smoke causes over 1 million deaths around the world (GBD, 2017).

Chronic Obstructive Pulmonary Disease (COPD) – The attempts to link cigarette smoking with chronic bronchitis were as early as 1939 (Short et al., 1939). Several studies were carried out that pointed towards an association between smoking and chronic bronchitis (Stuart-Harris, 1954; Higgins, 1974). The landmark cohort study was carried out in 1960s in London that described an accelerated decline in lung function in smokers (Fletcher & Peto, 1977). The underlying mechanism was explained by Erikson in 1965 that associated COPD with deficiency of α 1-antitrypsin, a consequence of genetic mutations, particularly in smokers (Erikson, 1965). Several studies in 21st century further elaborated on the mechanism of COPD development in tobacco users (Ito et al., 2006; Shapiro et al., 2003; Ashraf et al., 2011) and established tobacco use as a risk factor for COPD (Dickens et al., 2011; Vestbo et al., 2011).

Asthma – Asthma is often associated with exposure to allergens and air pollutants (Matsui et al., 2008). Several epidemiological studies showed that smokers were more likely to suffer from an exacerbated asthma as compared to non-smokers (Annesi-Maesano et al., 2004; Avila et al., 2005; Fernandez-Benitez et al., 2007; Gomez et al., 2009; Genuneit et al., 2006; Gilliland et al., 2006; Van de Ven et al., 2007; Vogelberg et al., 2007). Several other studies explained biological mechanism by which tobacco use/ smoking leads to asthma and its exacerbation (Nakamura et al., 2008; Nouri- Shirazi & Guinet, 2006; Robays et al., 2009; Levine & Wenzel, 2010). The mechanism includes impaired growth of the lungs during childhood, chronic airways inflammation, impaired mucociliary clearance, and increased bronchial hyper-responsiveness (USDHHS, 2004, 2006, 2010).

Tuberculosis – India and China accounts for 30 percent of world's TB cases and 40 percent of world's smokers (WHO, 2008). Tobacco use/ smoking was considered as a risk factor for TB mortality as early as 1950s (Doll & Hill, 1956). Now in 21st century, several cohort studies and case-control studies have established association between tobacco use/smoking and tuberculosis (Jha et al., 2008). The evidence of this association has been assembled in several systematic reviews (Davies et al., 2006; Bates et al., 2007; Chiang et al., 2007; Lin et

al., 2007; Pai et al., 2007; WHO 2007). Each of these studies came to conclusion that smoking doubles the risk of TB infection and mortality due to TB. Also the risk of TB recurrence or relapse increases in tobacco users as compared to non-users (Thomas & Colleagues, 2005; Jee & colleagues, 2009).

Idiopathic Pulmonary Fibrosis (IPF) – The inhaled toxicants of tobacco smoke leads to alveolar epithelial injury, resulting in pulmonary fibrosis (King et al., 2011). Several epidemiological studies have established that smoking is associated with an increased risk of Idiopathic Pulmonary Fibrosis (Washko et al., 2011; Kawabata et al., 2008; Katzenstein et al., 2010; Baumgartner et al., 1997, 2000; Hubbard et al., 1996, 2008; Miyake et al., 2005).

Tobacco use and Cancer –

Many researchers have worked on mechanistic concept of cancer induction by chemicals present in tobacco and tobacco smoke (Miller, 1976; Searle, 1984; Loeb & Harris, 2008; Penning, 2011).

Lung Cancer – Evidence showed that incidence rates of adenocarcinoma of lung associated with cigarette/ bidi smoking, have increased worldwide (Devesa et al., 2005). The evidence came in 1950s which suggested that cigarette smoking is associated with lung cancer (Study group on smoking and health, 1957; Cutler, 1955). In 1958, first cohort study was published by American Cancer Society which showed an increased death rate due to lung cancer, among heavy smokers as compared to non-smokers (Hammond & Horn, 1958). There were several other studies done worldwide which concluded that cigarette smoking is a risk factor for lung cancer (Doll & Hill, 1954; Dorn, 1958, 1959).

Oral Cancer – The available evidence has been discussed in the previous section (at Pg no. 26).

Liver Cancer – The studies, after adjusting for the confounders, have shown that tobacco users are also at an increased risk of liver cancer as compared to non-users (IARC, 2004). This is due to the fact that harmful chemicals from tobacco are metabolised in the liver and act as liver carcinogens (IARC, 2004). These carcinogens also cause liver fibrosis (Altamirano & Bataller, 2010; Mallat et al., 2008; Dev et al., 2006).

Colorectal Cancer – The risk factors for colorectal cancer include alcohol intake (Thun et al., 1997), obesity (Renehan et al., 2008), family history (Fuchs et al., 1994) and dietary factors

(World cancer research fund/ American institute for cancer research, 2007). The studies have also shown that long-term tobacco use increases the risk of colorectal cancer (Giovannucci et al., 1994 a,b; Terry et al., 2002; Wei et al., 2004; Liang et al., 2009; Tsoi et al., 2009; Botteri et al., 2008). Adenocarcinomas of colon and rectum develop from adenomatous polyps and crypt lesions due to mutated cells, which happen gradually taking 20-40 years (Fearon & Vogelstein, 1990). Tobacco carcinogens including PAHs, heterocyclic aromatic amines and N-nitrosamines, reach the colon through circulatory system and cause mutations in the DNA of human colonic epithelium (Giovannucci & Martinez, 1996; Alexandrov et al., 1996; Pfohl-Lesz-kowicz et al., 1995).

Prostate Cancer – The evidence suggest, a high risk of mortality from prostate cancer in tobacco users as compared to non-users (USDHHS, 2004, p. 26). The increased mortality is due to carcinogenic constituents of tobacco, which alter the level of sex steroid hormones and cause gene mutations (Zu & Giovannucci, 2009).

Breast Cancer – Some biochemical studies have found nicotine and its metabolite cotinine in the breast fluid of non-lactating women (Hill & Wynder, 1979; Petrakis et al., 1978). Some studies showed that carcinogens in tobacco smoke could induce mammary tumours in rats (el-Bay-Oumy, 1992). Breast is rich in adipose tissue which could store lipophilic carcinogens and these when activated form DNA adducts in DNA of epithelial cells of breast (Phillips et al., 2002). Some studies have found DNA adducts in the DNA of epithelial cells of tobacco user women (Thompson et al., 2002). Many systematic reviews have concluded that tobacco increases the risk of breast cancer (Collishaw et al., 2009; California environmental protection agency, 2005; Institute of medicine, 2012).

Tobacco use and Cardiovascular Diseases –

Tobacco use is a major risk factor for cardio-vascular diseases (GBD, 2016), contributing to about 17 percent of all cardiovascular deaths globally, which is about 3 million deaths per year (Global health estimates, 2016).

A study in late 1990s in Scotland mentioned an association between decreasing smoking trends in US and decline in CHD mortality along with other factors (Capewell et al., 1999). In 2005, a similar study in Finland showed that reduction in smoking along with other factors, led to about 53 to 72 percent decline in CHD mortality (Laatikainen et al., 2005). Many similar studies explained decrease in smoking rates as a contributing factor to the

decline in CVD rates in developed countries particularly US (Goldman & Cook, 1984, Stern, 1979, Hunink et al., 1997, Ford et al., 2007, Hardoon et al., 2008, Ford & Capewell, 2011). An extensive review was done by Csordas and Bernhard in 2013 to discuss the biological mechanism of the atherogenic effects of cigarette smoking leading to cardiovascular diseases. According to recent studies, risk of dying from cardiovascular diseases among men is about 2.5 times more in smokers as compared to non-smokers. Among women, risk of dying from cardiovascular diseases is about 2.86 times more in smokers as compared to non-smokers (Thun et al., 2013). Similarly many epidemiological studies conducted among men and women, have identified tobacco use as a strong risk factor for CHDs (Tolstrup et al., 2013; Huxley & Woodward, 2011; Kenfield et al., 2008, 2010).

Tobacco use and Reproductive health –

Effect on Foetus – It was stated in Surgeon General’s report in 1964 that maternal smoking leads to low birth weight babies (USDHEW, 1964). The products of cigarette combustion (e.g. Carbon-monoxide) lead to hypoxia, vasoconstriction of utero-placental vessels, which hampers growth of foetus (Lambers & Clark, 1996). Maternal smoking also leads to increased risk of preterm delivery (Shah & Bracken, 2000). Use of smokeless tobacco/ chewing tobacco during pregnancy also leads to increased risk of preterm delivery (Gupta & Sreevidya, 2004; England et al., 2013; Baba et al., 2012). Research has shown that “chemicals such as polycyclic aromatic hydrocarbons (PAHs) and nitrosamines present in tobacco smoke, are responsible for adverse birth outcomes in pregnant women” (Grazuleviciene et al., 2009; Nukui et al., 2004; Wang et al., 2002; Aagaard-Tillery et al., 2010).

Still-birth and Perinatal mortality – It was stated in Surgeon General’s report in 1969 that maternal smoking was associated with stillbirth and neonatal death (USDHEW, 1969). Further studies showed that exposure to tobacco smoke, increased the risk of stillbirth by 40 percent (Cnattingius et al., 1988) to 60 percent (Raymond et al., 1994). Also tobacco smoke increases the risk of neonatal mortality by 20 percent (Malloy et al., 1988; Cnattingius et al., 1988). One study showed that 3.4 to 8.4 percent of perinatal deaths could be attributed to smoking (DiFranza & Lew, 1995). The underlying reasons for these deaths were found to be abruption, preterm delivery, placenta previa, and physiologic responses of the foetus & newborn to stress (Meyer & Tonascia, 1977).

Sudden Infant Death Syndrome (SIDS) – First association between maternal smoking and SIDS was established by Surgeon General’s report in 2004 (USDHHS, 2004). Recent epidemiological studies and meta-analysis have also shown that maternal smoking increased the risk of SIDS (Vennemann et al., 2012). The studies have been done regarding underlying mechanism of SIDS by maternal smoking. Prenatal tobacco exposure makes it difficult for infants to recover from hypoxia especially preterm infants (Thiriez et al., 2009). Tobacco exposure also impairs arousal patterns (Richardson et al., 2009) and these changes lead to increased risk of SIDS (AAP, 2011).

Neurocognitive development of infants and children – Prenatal and postnatal exposure to tobacco smoke has an effect on brain, central nervous system, foetal head growth and thus impairs neurologic development and intellectual abilities (Bublitz & Stroud, 2012; Roza et al., 2007; USDHHS, 2010).

Congenital malformations – The 7000 different compounds of tobacco/ tobacco smoke, have deleterious effects on development of foetus and cause major birth defects (Rogers, 2009; Talbot, 2008; USDHHS, 2010). The studies have shown a causal relationship between maternal smoking and occurrence of cleft lip and/or cleft palate in new-borns (Little et al., 2004 a, b; USDHHS, 2010; Bille et al., 2007; Leite & Koifman, 2009; Lebby et al., 2010; Zhang et al., 2011). There also exist a positive association between maternal smoking and occurrence of Clubfoot (Idiopathic Talipes Equinovarus) in new-borns (Honein et al., 2000, 2001; Dickinson et al., 2008; Kancherla et al., 2010). Studies have also shown that maternal smoking contributes to Gastroschisis (Werler et al., 2003; Feldkamp et al., 2008; Chabra et al., 2011; Hackshaw et al., 2011). Craniosynostosis is a serious birth defect in which one or more cranial sutures get fused. Several studies have found an association between maternal smoking and Craniosynostosis (Kallen, 1999; Honein & Rasmussen, 2000; Hackshaw et al., 2011). Anorectal atresia is another serious defect, “presented by faulty separation of the rectum and urogenital system or failure of the anal membrane to rupture”. Hackshaw and colleagues in 2011 found that there was a significant association between maternal smoking and anorectal atresia. Another study by Zwink and colleagues in 2011, found a significant association between paternal smoking and anorectal atresia.

Neurobehavioral disorders of childhood – The studies have found that children of tobacco users often show behavioural difficulties like hyperactivity, cognitive impairment, conduct disorder, increased anxiety, depression, and somatosensory deficits (Langley et al., 2005;

Linnet et al., 2003; Latimer et al., 2012; Koshy et al., 2011; Becker et al., 2008; wakschlag et al., 2002, 2006 a,b, 2010; Nigg and Breslau, 2007; Boden et al., 2010; Indredavik et al., 2007; Robinson et al., 2008). The underlying biological mechanism was explained to be effect of tobacco compounds on placental development and foetal brain (USDHHS, 2010).

Ectopic pregnancy – Ectopic pregnancy is a condition in which fertilised ovum gets implanted outside uterus, most often in the fallopian tubes. Several risk factors have been found to be associated with ectopic pregnancy. There is a lot of epidemiological evidence that point towards an association between ectopic pregnancy and tobacco use (Bouyer et al., 2003; Coste et al., 1991; Karaer et al., 2006; Handler et al., 1989; Saraiya et al., 1998). Castles and colleagues in 1999 have shown that smokers had 1.77 times higher risk of ectopic pregnancy than non-smokers. Another 3 studies have showed that smokers had 1.91 times higher risk of ectopic pregnancy as compared to non-smokers (Chow et al., 1988; Levin et al., 1982; Parazzini et al., 1992).

Spontaneous abortion – In a meta-analysis of 13 studies in 1995; DiFranza and Lew showed that smokers had an increased risk of spontaneous abortion by 1.24 times to 1.32 times. Kline and colleagues in 1995 further supported the association. Some more studies done across the globe found positive association between smoking and spontaneous abortion (Chatenoud et al., 1998; Mishra et al., 2000; Nielsen et al., 2006).

Male sexual function – A large number of studies showed that tobacco use, adversely affect sexual health and causes erectile dysfunction (Bornman & du Plessis, 1986; Mannino et al., 1994; Polsky et al., 2005; He et al., 2007; Kupelian et al., 2007, 2010; Tostes et al., 2008). There is sufficient evidence to infer tobacco use as a risk factor for erectile dysfunction.

Tobacco use and Eye disease –

Age related macular degeneration (AMD) – The evidence shows that there exist a causal relationship between tobacco use and AMD which is a leading cause of blindness in older age (Klein et al., 1993, 1998, 2002, 2008; Chang et al., 2008; Fraser-Bell et al., 2006; Smith et al., 1996; Tan et al., 2007; Vingerling et al., 1996; Delcourt et al., 1998; Cackett et al., 2008; Yasuda et al., 2009). These studies also found a dose-response relationship between tobacco use and AMD i.e. greater the amount and duration of tobacco use; greater are the chances of developing AMD (Chakravarthy et al., 2007; Schmidt et al., 2005, Christen et al., 1996; Seddon et al., 1996). The biological basis of this association was explained to be local

inflammatory response (Wang et al., 2009), oxidative stress (Rahman & MacNee, 1996; Gu et al., 2003; Hammond et al., 1996), and vascular insufficiency (Bettman et al., 1958).

Tobacco use and Diabetes –

The prevalence of diabetes is increasing worldwide, mainly due to sedentary lifestyles, increasing overweight and obesity (CDC, 2011). The evidence shows that tobacco use is also associated with Type 2 diabetes (Willi et al., 2007; Xie et al., 2009; USDHHS, 2010). Tobacco use is independently associated with central obesity (Shimokata et al., 1989; Barrett-Connor & Khaw, 1989; Canoy et al., 2005). Central obesity leads to concentration of cortisol (Pasquali & Vicennati, 2000) which in turn causes insulin resistance and diabetes. Tobacco users were found to have higher concentration of fasting plasma cortisol (Cryer et al., 1976; Friedman et al., 1987) and thus at increased risk of diabetes. The evidence shows that tobacco users have about 1.37 times higher risk of having type 2 diabetes as compared to non-users (USDHHS, 2014).

Tobacco use and Immune function –

The evidence is sufficient to show a causal relationship between tobacco use and decreased immunity (Barnes, 2004; Vander Vaart et al., 2004; Sopori, 2002; Stampfli & Anderson, 2009; Vesely et al., 2011; USDHHS, 2014). The 7000 chemical compounds of tobacco are highly chemically reactive (Kodama et al., 1997) and badly affect immune system of tobacco user (USDHHS, 2014). The weakened immunity of tobacco user is responsible for frequent bacterial and viral infections.

Rheumatoid Arthritis –

Tobacco use has been identified as a risk factor for the development of Rheumatoid Arthritis (Vessey et al., 1987; Costenbader & Karlson, 2006; Costenbader et al., 2006). The risk of developing rheumatoid arthritis is about 1.4 - 4 times more in tobacco users as compared to non-users (USDHHS, 2014; Sugiyama et al., 2010).

Analysis of studies that show association or causality –

The subject of tobacco use is most important for thousands and millions of the human race who form artificial appetites for tobacco and gratify it at the expense of health and life (Baldwin, 1853). Several meta-analyses have quantified the epidemiological evidence of tobacco use as a risk factor for several diseases but the discourse that whether tobacco use is a causal factor for these diseases; cannot be arrived at with any certainty. This is due to the fact that definition of “cause” itself has undergone many changes historically and there are context-specific constructs of causation. Sir Austin Bradford Hill in 1965 used widely recognised criteria for interpreting epidemiological evidence and to define “causation” of human disease (Hill, 1965). These are called Hill’s criteria and include; 1) strength of association, 2) specificity of association, 3) consistency of association, 4) temporal relationship, 5) coherence of association, 6) plausibility, 7) dose-response relationship, 8) experiment, 9) Analogy (Hill, 1965). Several systematic reviews and meta-analysis concluded a causal relationship between smoking and several diseases but such a conclusion is very subjective and depends on researcher’s definition of a “causal relationship”. It is not ethically possible to conduct direct experimental research in humans for establishing tobacco use as a cause of any disease. Thus ability of statistical methods to prove a causal relationship between tobacco use and several diseases is questionable. Although the inference that, tobacco users are more likely to develop certain health problems/ diseases as compared to non-tobacco users, have been established by several studies. But we also need to look further towards causal-pathways and social epidemiology of tobacco use (Krieger, 2001). We need to study psychosocial and eco-social factors associated with tobacco use and development of diseases. The tobacco use cannot be studied in isolation but is closely related to the human interactions; human response to stress and human response to social, political and economic policies. The “agent-host-environment triangle” holds valid for tobacco use as a risk factor and the environment also include socio-economic, socio-political and psychosocial environment. We also need to study tobacco use in social cohesion with social determinants of health.

Moreover most of the previously mentioned studies address adverse health effects of smoking and very few studies been done on smokeless tobacco. In India smokeless tobacco use is more prevalent than smoking (GATS, 2016-17). Moreover most of the studies have been done outside India, mostly in Western contexts. There are very few epidemiological studies done in India which needs to be addressed because many factors play their role while

studying populations with socio-demographic characteristics that are very different from the Western context. Also It is difficult to find any study that has looked for “social epidemiology” of tobacco use. Thus there is a need to look for social determinants and social distribution of tobacco use as a risk factor. We need to explore how tobacco use habit varies with age, gender, class, caste, occupation, education, income, socio-economic status and other individual level social factors. Also we need to look at larger contextual and structural level social determinants of tobacco use. For example how the tobacco industry, tobacco control laws, tobacco taxation policies, tobacco trade across states and across countries; influence tobacco use amongst individuals.

Studies have been done to understand the Cigarette industry and also Bidi industry but very few if any studies has been done to understand smokeless tobacco industry in India. The industry tactics is a major social determinant of tobacco use. The tobacco industries also have their R&D department and Marketing departments which constantly look for ways to increase their markets and retain the old ones. The industries have their lawyers to build arguments for escaping all the tobacco control efforts. There is also a need to understand history and evolution of smokeless tobacco industry in India which is a gap in literature.

Similarly the studies have been done to explain tobacco control policies but very few studies have been done to explain the process of resistance of tobacco industry to these policies.

The above mentioned studies provide a comprehensive review of the available evidence of harmful health effects of tobacco use. At the end, it was not a single study but a plethora of studies, which led to a conclusion that use of tobacco, is harmful and is associated with several diseases and such a conclusion about tobacco is irrefutable. Thus every effort should be done towards quitting of tobacco use and adoption of a healthy lifestyle. Also while making an attempt to answer the research question, “what are the harmful health effects of tobacco use”; the studies also raised some questions at the end. These questions include, “what are the harmful health effects of tobacco use (including smokeless tobacco) in Indian populations and what is the social epidemiology of tobacco use”? We also need to answer “Who are the people using tobacco?” and “Why do people use tobacco?” We need further research to answer these questions; with this particular research being fundamental.

This research is an attempt to answer these questions in detail. It begins with the reason why I choose smokeless tobacco over smoking tobacco as my research problem. Prior to that it presents review of literature where it talks about history of smokeless tobacco use, which

itself determined to a larger extent its popularity in the present times. This chapter starts with Mughal period and then discusses colonisation with respect to tobacco cultivation in India. It discusses changing situations of tobacco farmers after Independence as tobacco trade shifted from contract system to Depot system and further to Auction system with the formation of Tobacco Board. This chapter forms the basis of 6th chapter where it talks of evolution of smokeless tobacco industry. Prior to that 3rd chapter conceptualises the study where it discusses Smokeless tobacco use with respect to public health and why it is important to address smokeless tobacco use as a public health problem. Further the chapter conceptualises why it is important to talk about social determinants of smokeless tobacco use and what all encompasses social determinants at different levels of epistemology. After conceptualisation of study, chapter 4 starts by stating Aim and Objectives of study and then elaborates Research Design with respect to each objective. Chapter 5 addresses first research objective; where it analyses demographic and socio-economic profile of smokeless tobacco users; using two rounds of GATS (Global Adult Tobacco Survey) India data. Here smokeless tobacco use with respect to Material Deprivation was analysed along with other variables (age, gender, education, occupation, caste, religion etc.). Material Deprivation as an index was devised. Further, it was found that smokeless tobacco use was more in highly deprived populations. Moreover smokeless tobacco use has increased among most deprived populations from 2009-10 to 2016-17; whereas it decreased among less deprived populations. These findings are a small contribution to Public Health epistemology. The findings of study at the level of individuals were then linked to an analysis at structural level that is at the level of smokeless tobacco industry and at the level of tobacco control policies, and the interactions between the two. It helps in answering the Why question. Because as stated by Judea Pearl in his book ‘The Book of Why’, the data are profoundly dumb. Judea Pearl elaborated that causation is not correlation and it becomes important to answer the ‘Why’ question (Pearl & Mackenzie, 2018). He further stated “The smoking debate brings the importance of causality into its sharpest focus. Millions of lives were lost or shortened because scientists did not have an adequate language or methodology for answering causal questions” (Pearl & Mackenzie, 2018, P. 19). The data tells us that people with high levels of material deprivation are more likely to use smokeless tobacco as compared to people with low levels of material deprivation; but the data cannot tell us why it is so? Therefore in following chapters I studied some structural level determinants of smokeless tobacco use.

Chapter 6 talks about evolution and structure of smokeless tobacco industry as a determinant of its usage especially among highly deprived populations. Here I used mixed methodology, I analysed Annual Survey of Industries data to know the nature of organised tobacco industry and found it to be exploitative in nature as wages paid to its workers were rather constant over a decade; but net income and profits of industry raised exponentially. This chapter also presented a qualitative research on the commercialisation of smokeless tobacco industry during late 80s and 90s. For this I personally interviewed some of the pioneers in smokeless tobacco industry. A snow ball sampling method was adopted to reach them; which is discussed in methodology chapter. After discussing the structure of smokeless tobacco industry including a chain of intermediaries between the product and the customer; next chapter i.e. Chapter 7 discusses Market strategies of smokeless tobacco industry as a determinant of smokeless tobacco use among Indian Population. Although Tobacco Advertising, Promotion and Sponsorship is banned in India under Section 5 of COTPA (Cigarettes and other Tobacco Products Act); but surrogate advertisements and point of sale advertisement and display is allowed. Tobacco companies take advantage of these loopholes and advertise their non-tobacco surrogate products like Pan Masala. This chapter discusses these issues in detail and tells how tobacco marketing targets Youth. Tobacco companies also encash upon emotional vulnerabilities and insecurities of individuals. They link their advertisements to success, wealth, glamour, generosity; as well as to culture, colours, festivals, tradition etc.

Chapter 8 talks about tobacco control policies and their dynamic interaction with smokeless tobacco industry. In this chapter tobacco control policies are discussed. Moreover political dynamics involved in tobacco control, as the tobacco industry respond to these policies, is discussed in this chapter.

Chapter 9 is a counterfactual which raises a query, “What would have happened had we acted differently?” It creates some mental models to experiment with different scenarios. It discusses a pertinent issue of Alternative livelihoods of tobacco vendors, farmers and other marginalised people involved in smokeless tobacco industry.

There is also an additional section on “Corona Pandemic and Tobacco Use” at the end of this thesis; which was written during lockdown period.

Thus this particular thesis will prove to be an interesting read about an industry where “One man’s pain is another man’s gain”.

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Chapter 2 – Literature Review

History of Smokeless tobacco use as a determinant of its popularity

This chapter talks about history of tobacco use in India because history is central to an understanding of the positioning and response to smokeless tobacco. Looking back into the past, both recent and more distant, allows us to identify the issues which have led tobacco to its current status in culture and its regulation in society. We can then analyse whether the society is heading towards greater hedonism, or greater restriction regarding tobacco use. The focus thus shifts to analysis of what may develop in future, rather than what should happen. The interactions between culture of tobacco use and its regulation is an historical process which develops further based on certain dynamics and keeps changing as we write and read this chapter.

History of Tobacco in International context –

In 1492, Italian explorer Christopher Columbus arrived at the island of San Salvador in the Bahamas. He was claiming the land on behalf of the monarchs of the Spain. The initial relations of Columbus with the indigenous people were peaceful; however he soon began to destroy the indigenous societies he encountered. The first group of native Taino people who met Columbus offered tobacco as a gift, but Columbus did not know what to do with this strange dried leaves and the crew of his ship threw these leaves overboard. As they explored the island of Cuba, the two members named Rodrigo de Jerez and Luis de Torres became the first Europeans to smoke tobacco (Streissguth, 2017).

Fra Bartolome' de las Casas, who owned a copy of Columbus's ship log, wrote the story of this encounter in 1514:

“These two Christians met many people on the road, men and women, and the men always with a firebrand in their hands, and certain herbs to take their smokes which are some dried herbs, put in a certain leaf, dry also, after the fashion of a musket made of paper... lit at one end and at the other they chew or suck and take in with their breath that smoke which dulls their flesh and as it were intoxicates and so they say that they do not feel weariness. Those muskets or whatever we call them they call tobacos.” (Streissguth, 2017, p. 13)

All the Europeans who explored North America after Columbus returned to their home country with tobacco. Soon the tobacco smoking became widely prevalent in Europe and people used to believe in the health benefits of smoking or chewing tobacco. When the tobacco arrived in Europe the traders claimed medicinal effects of tobacco in curing toothaches and headaches. But the progress in modern medicine has shown that tobacco worsens the headaches and moreover it causes several cancers and other diseases (Streissguth, 2017).

Gradually Englishmen developed an appetite for tobacco. But the tropical tobacco plant was not meant to flourish in the soil or climate of the island of United Kingdom. Therefore England started looking to its American colonies. The native people of America were growing tobacco successfully for thousands of years. Soon in 1612, John Rolfe of the Jamestown colony in Virginia started a tobacco plantation and more plantations followed it to grow, harvest and export the tobacco plant in large quantities than ever before.

In a short span of time, tobacco spread to other colonies and to the Caribbean region. Soon it became the most important cash crop grown in England's American colonies. The plantation also spread the system of slavery across these agricultural regions. As the demand for tobacco increased, it became impossible to restrict its cultivation to small family farms, and the work started at large tobacco plantations. In the 1600s, the tobacco growers started using indentured servants to work on their tobacco crops. Indentured servants were brought to the United States and, in return for free passage, were under contract to work for a specified period, usually four to seven years. They used to be released after having served their time. Indentured servants were usually enslaved Africans. The tobacco industry brought millions of captive Africans to the Caribbean and the United States through the middle of 1800s. Many were put to work in the tobacco fields of Maryland and Virginia. This practice of indentured servitude gradually died out after 1800s (Streissguth, 2017).

During 19th century the most popular form of tobacco use in the United States, was chewing tobacco – a small plug of dried and cured leaf. Men, Women and even children used plug tobacco at almost all times of day, indoors and out. When excess juices filled the mouth, the user spat them out. Tobacco stained floors were a common feature in homes and public places, and spittoons, special containers for spitting, were placed everywhere. The habit caused English author Charles Dickens distress. Although Dickens admired many things about America, he did also observe tobacco chewing. In his account of an 1842 trip to the

United States, called American Notes, he wrote, “Washington [DC] may be called the headquarters of tobacco-tinctured saliva... The thing itself is an exaggeration of nastiness, which cannot be outdone.” (Streissguth, 2017).

Introduction of Tobacco in India –

Tobacco was introduced to India in about 1605 by the Portuguese traders. It was first entered in Deccan region of India and afterwards subsequently spread to northern India. The first mention of Tobacco in India dates back to 1619 by an Englishman Edward Terry who wrote in his memoirs, “They sow tobacco in abundance, but know not how to cure and make it strong, as those in the western India” [West-Indies] (Anon).

An interesting native account, mentioning introduction of tobacco into the Mughal courts of India, is contained in the Wikaya-I- Asad Beg.¹ I am summarising this account as follows:

Asad presented tobacco in the form of Hukkah to Akbar in his court. It was not an ordinary Hukkah but a handsome pipe of jewel work, beautifully coloured and adorned with jewels and enamel. The tobacco it contained was of very fine quality and was obtained from Bijapur. The burner used for lighting it was golden. Everything was arranged elegantly on a silver tray. The tube made to keep the stern in, was also made up of silver and was covered with purple velvet (Anon). This shows that from the very beginning tobacco merchants introduced tobacco in the royal families. First of all they introduced it to the king of India as they knew people listened to the king. They introduced it in a very royal way prepared with a handsome pipe of jewel work. This historical account further shows that product segmentation is not something new which only Harvard Business schools can teach; rather it was a novel marketing technique since Mughal period.

Continuing with the Royal Account; When Akbar interrogated about what tobacco is; to this Nawab Khan- I Azam replied that it was a medicine. However royal physician of Akbar forbade him to use it and sent for his druggist to know about its peculiar qualities. The druggist told that there was no mention of this product (tobacco) in his books, but “European doctors had written much in its praise” (Anon, p. 70). The physician of Akbar still advised him not to try a thing which is unknown to Indian culture. “Asad” argued with the physician

¹ Wikaya-I- Asad Beg was written in 1605 by Asad Beg of Kazwin, an officer at the court of Emperor Akbar.

and was able to convince the emperor that tobacco had good qualities and was worth trying (Anon). Indeed the physician was a “good physician” but everybody else in the royal court just lobbied in the favour of tobacco and he could not persuade them otherwise. “Asad” also offered tobacco to several of the nobles of the court and the custom of smoking spreaded rapidly. This shows that tobacco lobbying had its origins in 17th century India. The advocates were there since very beginning to propagate medicinal effects of tobacco and to deny any harmful health effects of it. The account described above also depicts lobbying of tobacco merchants with the officers at the court of the king, priests and other wise men.

There is evidence to show that Jahangir issued a prohibition of tobacco in 1617, “As the smoking of tobacco has taken very bad effect upon the health and mind of many persons, I ordered that no one should practise the habit. My brother Shah Abbas [King of Persia], also being aware of its ill effects, had issued a command against the use of it in Iran. But Khan-i Alam was so much addicted to smoking that he could not abstain from it, but often smoked.” (Anon, p. 70)

Thus after introducing the tobacco in royal families, the tobacco merchants encashed upon its addictive nature and nicotine addiction in turn assured them a great fortune ahead.

“J.B. Tavernier, a French gem merchant, who travelled in India, wrote in 1659 that tobacco grew abundantly in the neighbourhood of Burhanpur, and that in certain years the people neglected saving it, because they had too much, and allowed half the crop to decay. F. Vincenzo Maria (Viaggio all’ Indie Orientali, 1672) even goes so far as to say that tobacco is produced in India in such quantity that both Asia and Europe could be supplied with it.” (Anon, p. 70-71)

Smokeless tobacco in International context –

The record of smokeless tobacco use comes from Amerigo Vespucci, who in 1499 described “Native Americans chewing green leaves mixed with a white powder”. They would carry two gourds around their necks, precursors of the contemporary south-east Asian tobacco pouch. One gourd was filled with leaves, the other with powder. After putting leaves in their mouths they dampened a small stick with saliva and dipped it in the powder, mixing

the two into a kind of chewing tobacco product. Native Americans also devised an alternative method of consumption, inhaling the fine tobacco powder through the nose from a Y-shaped hollow piece of pipe. Placing a forked end of pipe into each nostril and the other end close to the powdered tobacco, they snorted it up, causing a ‘sneeze’ reflex. Such snuffing pipes were called ‘Tobago’ or ‘tobaca’, like the name of the island of Tobago in the West Indies, which some believe to be the origin of the word tobacco (Gupta et al., 2017).

Smokeless tobacco came to Asia through Portuguese trade routes to Japan, and from there to China, where it became popular at the courts of the Ching Dynasty. The Chinese kept their tobacco in bottles made from precious materials such as ivory, brass, porcelain, jade, coral, quartz, turquoise, cinnabar, amethyst, amber, as well as horn, bamboo and bone. They would remove a small portion of snuff with a spoon, place it on the left thumbnail, and inhale it forcefully into the nostrils. The Chinese believed tobacco was beneficial for treatment of cold, throat ailments, asthma, constipation and toothache. Smokeless tobacco gained wide popularity and rapidly spread to many countries of Central and South East Asia (Gupta et al., 2017).

Placed in the mouth, it [tobacco] produces dizziness and stupefies.

—Sahehum, a priest who lived among the Mexicans, 1529–1590

Chewing tobacco is tobacco’s body, smoke is its ghost and snuff is tobacco’s soul.

—Bob Stevens, 1976

Birth of smokeless tobacco use in India –

The history of smokeless tobacco in India starts with betel leaf or betel vine popularly known as “Paan”. The deep green heart-shaped leaves of betel vine are also known as Nagurvel, Nagaballi, Sompatra, Saptaseera, Tambul, Tambuli, Tamalapaku, Vettilai, Voojungalata, Vaksha Patra etc in different parts of the country (Guha, 2006). Betel Vine is thought to be originated from Malaysia. The plant is most popular in India since the ancient times. The importance of betel leaf in relation to social, cultural and religious life of India has

been mentioned in ancient literature and Indian scriptures (Guha, 2006). Betel leaf is considered very religious and holy. Betel leaf is in use since Vedic period and was called as 'Taambol' in Vedic period. It was also considered to be present during Satyug and was called as 'Nagbel' since it came from 'Naglok'. Throughout history, betel leaf was given a holy place and used to be associated with God worship (Pooja). In 'Ramayan', there is a reference of Paan and was called as 'Beeda'. During Mughals Paan was a symbol of bravery. When soldiers used to go for a battle, they were given 'Paan' before going. There is a mention of Paan in almost all the epics. In Hindus, betel leaf is used for rituals right from the birth of the child till funeral. Paan is routinely served in India on the cultural, social and religious occasions like Puja, marriage, Sraddha ceremony etc. It is also offered to the guests especially in the north-east (Guha, 2006). There are different species of Betel leaf and they have different flavours.

During Mughal period, beautifully decorated spittoons were used to be kept, and different kinds of fragrances were added to Paan. Also during this period the introduction of tobacco in India by Portuguese traders took place, tobacco was added to the Paan and later-on other tobacco products such as Gutkha, Khaini, Zarda etc. evolved. The paste of tobacco is called 'Kimam' and there is a mention of 'Kimam' in history i.e. Mughal period. When Europeans first arrived in India, pan was presented to them as a symbol of courtesy and respect because they were considered honoured guests. The Europeans soon adopted India's customary use of pan and experimented by adding tobacco to it, which led to the regular practice of using smokeless tobacco with betel quid. Noor-e-Jahan, mother of Emperor Shah-e-Jahan who built the Taj Mahal, popularised the tradition of chewing betel leaf with tobacco in the Mughal courts by offering it to guests to welcome them, and also at their departure (Gupta et al., 2017).

In marriage also betel leaf plays important role. In Bengali marriages, betel leaf is used to cover the face of bride among Ghoti communities. They also have a custom to gift Paan and Supari (Areca-nut) along with marriage Invitation. In Uttar Pradesh, 'Paan' is offered to guests during marriages. In Muslim marriages, it is essential to give 'Paan' in dowry. Between the 8th and 18th centuries, it was fashionable for betel chewers to carry a case to hold the components of pan from which they would serve their guests. The betel cases of the wealthy were usually of silver or gold, while the poor used brass boxes or mat bags. The betel quid was presented as a token of hospitality and courtesy. It was considered rude to decline it, or for a person of lower hierarchy to address a superior without chewing pan before speaking.

Chewers usually swallowed the juice. Pan was used by both sexes from early childhood until old age, when toothlessness meant that the ingredients would have to be reduced to a paste so they would dissolve in the mouth (Gupta et al., 2017).

Thomas Bowery, an English traveller to India, gave an account of betel, areca nut, and tobacco chewing during the years 1669–1679. He noted that tobacco was included among gift items to fakirs (holy men) in northern India. In the Coromandel region, it was mixed with betel leaf and areca nut (pan and supari), forming a quintessential betel quid with tobacco, which was served at Hindu weddings and many such important social occasions. The earliest account of tobacco being chewed with areca nut or lime is from 1708 (Gupta et al., 2017).

Pan stains chewers' saliva, lips, and teeth red, and pan use became so prevalent that red-stained lips and teeth soon not only became acceptable but were considered a mark of beauty for women and a mark of wealth among men. John McCulloch underscored the social importance of pan use, writing in 1832: 'No one of inferior rank addresses a dignified individual without the previous precaution of chewing betel; two people seldom meet without exchanging it; and it is always offered on the ceremonious interviews of public missionaries (Gupta et al., 2017).

Five important ingredients of Paan are Supari, Kaththa, Long, Elaichi, and tobacco. Different types of flavours are also added to smokeless tobacco products. Some of the popular flavours are rose, kesar and mint.

According to the Hindu Dharma Sastra (code of behaviour), areca nut pleases God Brahma (the creator), the betel leaves pay homage to Vishnu (the protector), and slaked lime bows to Siva (the destroyer).

—P.K. Gode, 1961

The chewing of betel provokes much spitting of reddish-coloured saliva; and the Indians have an idea that by this means the teeth are fastened, the gums cleaned, and the mouth cooled

—Dr. Ainslie, 1836

The market for pan in India changed in the mid-20th century, when consumers demanded an easier and faster method of use, and ingredients and packaging also evolved. To simplify the effort required to prepare pan, manufacturers created a powdered mixture of its contents that

could be readily consumed from a tin, or later from a pouch or packet. This form of pan became known as pan masala, a popular product amongst youth and elders. Some varieties, which contained tobacco, were marketed as mouth fresheners. Many brands of pan plus tobacco were packaged in colourful, eye-catching wrappers that could attract young adults and make them addicts for life (Gupta et al., 2017).

Thus the forms of tobacco use changed over time. The Native Americans used smokeless tobacco in a very crude form. As smokeless tobacco got introduced to other parts of the world, its usage became more sophisticated. Chinese used it in the form of Snuff. In India smokeless tobacco was introduced in the royal families, in the religion and in the customs. This was a successful marketing technique to begin with as Indians were devoted to their kings, their religion and their customs; and were determined to carry forward these customs generation after generations. I must admire the vision of tobacco merchants of 17th century. The way they introduced a product called tobacco, shows their business skills that no B-school can teach nowadays. They married their product to holy betel leaf and then started a journey of addiction and popularity. Great fortune was lying ahead of tobacco merchants...

Socio-cultural Values associated with Tobacco Use –

Tobacco use possesses significant socio-cultural value in almost all the communities of India. One more example is from Bihar where various forms of tobacco use is called, ‘kal jug ke amrit’ or the ambrosia of the kali age. A form of tobacco called, ‘Khaini’ chewing is very popular in Bihar. Khaini and Biri are also associated with nationalist struggle. There is a very popular maxim in Bihar (Kerkhoff, 2014):

“Inqalab Zindabad (Long live the revolution)

Khainiwala khaiya (the tobacco chewer will eat, get food)

Dur hato ai duniyawalo (get rid of this ‘man of the world’ i.e. foreigner)

Hindustan hamara hai (India belongs to us)”

Similarly Biri was also associated with Swadeshi movement and was called, ‘Poor man’s smoke’. Moreover less taboo exists regarding women smoking bidis or chewing tobacco as compared to smoking cigarettes (Kerkhoff, 2014). The ‘Swadeshi Movement’ of 1920 gave

impetus to Bidi industry when smokers also showed solidarity to the movement and preferred bidis in place of British cigarettes (Lal, 2009). By the 1960s many bidi brands came in to market with attractive names like Hindmata, Ganesh, Telephone, Train, Telegram and in the names of film actors and sportspersons (Lal, 2009).

Similarly when tobacco was introduced during Mughal reign, it was introduced as an ornamental Hukkah which soon became a status symbol. A wide variety of Hukkahs came up soon, ranging from those made up of silver, brass to others made up of other precious metals. For the lower classes, these were made up of wood or coconut shells. The paintings of Mughal period also show, “both men and women smoking Hukkahs” (Reddy & Gupta, 2004).

There is a range of writings appreciating the social and cultural nature of Hukkah, especially as a symbol of bonding between friends. An example: “It is a friend in whose bosom we may repose our most confidential secrets, and a counsellor upon whose advice we may rely in our most important concerns—the music of its sound puts the warblings of the nightingale to shame, and the fragrance of its perfume brings a blush on the cheek of a Rose” (Reddy and Gupta, 2004, p. 12). The idiom “Hookah Pani Band” (stopping of Hukkah and water) is still widely used in villages of North India which means; i.e. “barring someone from sharing social life with other members of community” (Reddy and Gupta, 2004, p. 12).

Thus tobacco products are not just nicotine delivering devices; but they have a whole range of social as well as cultural connotations attached with them. Looking at one more example, in the traditional Mizo society, in north-east India, there is a tradition that “housewife has to serve ‘tobacco water’ to the husband as well as to the visitors. As a custom, the houses here own three tobacco water flasks; one for the husband, one for the wife, and the one for the guest” (Reddy and Gupta, 2004, p. 13). There may be more than three. This custom is particularly common among Lakhers (tribal community in Mizoram) (Reddy & Gupta, 2004).

There is also a mention of medicinal properties of tobacco, as well as its adverse effects, in the ancient medical text of “Yogaratanakara”.² Among few medicinal properties of tobacco, it is said to facilitate smooth intestinal motion; provides relief in toothache; cure skin itching; control wind in the body; and may treat scorpion bite. Nonetheless people in rural and tribal areas still mention these features of tobacco as a reason for its use by them. However notable

² Yogaratnakara is a medical compendium composed between AD 1625 and AD 1750, which is one of the classic works in the Sanskrit literature published by Anandashrama, Pune in 1900.

adverse effects of tobacco are also mentioned in this text. These include giddiness, eyesight weakness and less virile semen, to name a few (Reddy & Gupta, 2004).

Thus after getting imbibed in to religion, culture and customs; it became important for tobacco to get validated from social values. First it encashed in to ‘Swadeshi movement’ of India, which was a huge success for newer forms of tobacco use i.e. bidi and chewing tobacco to get popular among Indian youth; then it became a symbol of solidarity, friendship and togetherness in the form of Hookah. It became an essential means of socialisation among Indian villages which was a major leap forward. Thus within a century, the ‘new bride’ called “tobacco” was able to please almost everybody in the ‘family’ called “India” including its religion, culture, customs and social values.

Colonisation and Tobacco –

Colonisation by Britishers also involved colonisation of ‘plants’ along with people; and there were complex and ever evolving dynamics among plants, people and colonisers. From 1800 onwards, colonial botanists did efforts for improvement of tobacco cultivation in India. Colonisation efforts by East India Company between 1757 and 1800 were also aimed towards taking a dominant position in the tobacco trade (Kerkhoff, 2014).

The American Revolutionary war (1775-83) was very significant in the history of old British empire, when they started looking towards their colonies in the ‘East’ to compensate for the ‘lost commodities’ such as tobacco and indigo. In 1791, the colonial West Indies Sugar industry also collapsed. Thus by the end of 18th century, England’s commercial gaze was increasingly on Bengal. The Bengal Subah, in particular, was focused upon by the Britishers as the most important alternative that could replace the lost colonies in America and become a major source of supply for the required commodities. Thus after 1760, in the East India company ruled Bengal, there had been the birth of a new commercial connection between London and Calcutta, where the place of the natives was definitely subordinate however. Indeed, within a century, Bengal fully transformed into an alternative supply region for England. When the British power advanced in India, nawabs in Bengal started losing all the control over any of the activities of English traders and subsequently the directors in London decided to control all the trade themselves (Kerkhoff, 2014).

In 1819, the Agricultural and Horticultural Society was established in Calcutta, which was responsible for observing the 'native methods' of tobacco cultivation with a view to 'improve' them. In 1829, the East India Company (EIC) government expressed its wish to finance tobacco experiments conducted under the aegis of the Agricultural and Horticultural society. The company also decided that European capital, skills and manpower should 'freely' be applied to improve its quality; which should not be restricted to any kind of government monopoly (Kerkhoff, 2014).

Also around 1820, in Bihar, 'Koerie' as a caste of gardeners had been induced by government to cultivate the poppy along with tobacco and vegetables. The tobacco was rather a native cash crop and the koeries chose to grow tobacco apart from poppy (ibid).

By 1884, England had lost its Manilla supply of Cigars, and thus the Britishers started looking at an alternative region that could both supply ready-made Cigars as well as raw tobacco that could be used for Cigar manufacture. By that time, Cigar smoking also got prevalent in India and replaced Hookahs for some classes, all over the country. But the London market did not value the Indian tobaccos as its quality was not sufficient for Cigarettes and Cigars. Therefore the demand for tobacco improvement grew. It was recommended to continue the tobacco experimentation in India with 'American seed' according to the 'American method', and also to improve the process of curing to make Indian tobacco fit for export (ibid).

In 1872, Pusa was selected as a model farm to conduct tobacco experiments, aimed at its improvement and production of first class tobacco suitable for the manufacture of Cigars in England, or elsewhere in Europe. The decision to make Pusa the centre of Bengal's tobacco experiments was based on the fact that the Tajpur subdivision of Tirhut in which Pusa was located, was considered as a most promising tobacco region by colonial administrators (ibid).

During the last quarter of the nineteenth century, recurrent famines and unfavourable market conditions had resulted in agricultural stagnation in Bengal. Meanwhile, tobacco experimentation in Bihar had never stopped. In 1897, the company of Begg and Dunlop proposed that tobacco in Bihar could be improved in a way to make it suitable for Cigars and Cheroots (ibid).

In 1910, the Pusa Agricultural Research Institute published its two major studies concerning Indian deshi tobaccos and emphasized that tobacco 'improvement' also meant adopting the

‘right’ methods of cultivation and proper curing so as to produce a finished leaf that could be used either as wrapper, filler or blender in cigarettes (ibid).

Thus during British rule, the crops got commercialised and there was increased cultivation of cotton, Indigo and tobacco around the Second World War (Kumar, 2013). Major importers of tobacco were former Soviet Union, UK and USA due to high consumption of tobacco and existence of cigarette manufacturing companies in these countries (Kumar, 2013). At the same time irrigation was introduced and Ryotwari system was adopted in some regions which mandate a uniform money rate to be paid in tax and thus provided reasons to grow high-valued cash crops (Duvvury, 1986). Major skilled farmers from coastal Andhra Pradesh and other regions got interested in tobacco farming (Kumar, 2013).

Flue Cured Virginia (FCV) tobacco was introduced at around the end of 1920s in Andhra Pradesh. By that time the agriculture was already highly commercialised and stratified. There were surrenders of the Zamindaris and the implementation of the Ryotwari system (Duvvury, 1985). The British tried to regulate collection of revenue from Zamindars. This was done through the Regulation of 1802 that mandated Zamindars to settle with individual cultivators on a field by field basis. But in practice, most of the Zamindars settled on a village basis by fixing a joint rent for the village as a whole. This resulted in exploitation of farm labourers and increased poverty. The government was criticised for not being able to protect the rights of cultivators. The great famine of 1832-33 was very significant since the Zamindars were unable to meet the revenue demands of British government. In 1846, Sir Walter Elliot wrote a report and suggested that, “the zamindaris be bought by the government and a liberal living allowance, partly in lands (with rent-free tenure) and partly in money be given to the zamindars” (Duvvury, 1985, p. 19). As a result the government bought all the Zamindaris. However the upper strata of Zamindars were able to maintain their ownership. By 1865 Ryotwari system was settled and the village agrarian structure was highly stratified with village elites having monopoly over land, some poorer Ryots, minority of tenants and large section of agriculture labourers. The Ryotwari system was formally introduced in 1873-74 and its objective was to eliminate all intermediaries between the government and the Ryot; to increase the share of government; and to improve productivity. Zamindars were still able to retain a large amount of land by showing it as under personal cultivation (Duvvury, 1985).

In India until 1930s, the tobacco crop consisted of mainly various types of Natu or Desi tobacco which was used for Bidis, Hookah, Cigars, Cheroots, Snuff and Chewing. It was

exported only for Hookah and Cigar and was not suitable for cigarette production (Duvvury, 1985). Then Flue Cured Virginia (FCV) tobacco crop was introduced which was very capital intensive and its cultivation was controlled by imperial capital (ibid). The FCV tobacco is a basic raw material in cigarette production and the crop was introduced in India by a subsidiary of British American Tobacco (BAT) Company which controlled the initial phase of FCV tobacco cultivation in the country. The BAT was having monopoly of a new technology during the pre-independence period and was controlling the cultivation of FCV tobacco through Contract System. The marketing channels of FCV tobacco then underwent distinct phases of the depot system and the auction system post-independence with the decline of the BAT monopoly (Duvvury, 1985).

From 1750s onwards, pipe smoking became popular in place of chewing tobacco (Duvvury, 1985). Wrapper leaf from Sumatra and Cuba was used for Cigars and Virginia tobacco leaf was used for smoking. Cigarette smoking first became popular amongst European soldiers when they experimented with Turkish Cigarettes during the Crimean war (1853-1856). By 1865, factory production of cigarettes started which was a manual work involving labourers. When the Bonsack machine³ was invented in 1881, modern production of cigarettes started in America with the monopoly of Washington Duke, Sons and Company which became largest manufacturer of Cigarettes by 1889 (ibid). In 1890, five principal manufacturers joined together to form the American Tobacco Company (ATC). The ATC started expanding in international market and in 1902 British American Tobacco Company (BAT) was formed by joining Imperial Tobacco Company (ITC) of Great Britain for business outside USA, UK, Cuba and Puerto Rico (Duvvury, 1985).

The cultivation of cigarette tobacco, especially Virginia tobacco was attempted in India around 1860s (Duvvury, 1985). Those were the scattered attempts of Englishmen to obtain tobacco for hand-rolled cigarettes. In the Madras Presidency, Government started promoting cultivation of cigarette leaf very actively. By 1900, the experiments with American Tobacco Leaf started at PUSA by Imperial Council of Agricultural Research in collaboration with the Imperial Tobacco Company (India) Ltd. In 1911-12, it was stated that it gave satisfactory yield (ibid). In 1914-15 the American Tobacco began to be cultivated in Bihar replacing Indigo estates and by 1917-18 covered an area of around 4000 acres (ibid). The Desi tobacco

³ James Albert Bonsack invented the first cigarette rolling machine in 1880. Prior to that time, cigarettes had been rolled by hand. The slow manual fabrication process—a skilled cigarette roller could produce only about four cigarettes per minute on average. Bonsack's machine was able to produce 120,000 cigarettes in 10 hours, (200 per minute), revolutionizing the volume of production in the cigarette industry.

was replaced by cigarette tobacco in many places. By 1940s, about 60 percent of the production was exported which rose to 85 percent by 1950s. The internal demand for tobacco also increased and added to expansion of its cultivation (Duvvury, 1985).

In 1905, British American Tobacco Company (BAT) formed a small subsidiary named Peninsular Tobacco Company (PTC) to manufacture cigarettes in Karachi (Duvvury, 1985). In 1908, PTC established a separate tobacco leaf purchasing agency, called Indian Leaf Tobacco Development Corporation (ILTD). In the Budget of 1910-11, the import duty on imported tobacco (both manufactured and unmanufactured) was raised by Government of India with a view of new source of revenue. By that time some tobacco manufacturers had already started cigarette production in India. The manufacturers in UK, including BAT, raised their voices against this increased import duty and the Secretary of State demanded an excise duty on internal tobacco production of India. This was rejected by the finance department by stating that tobacco industry in India was in its infantile stage (ibid). The import duties were also reduced.

Peninsular Tobacco Company (PTC) expanded its cigarette production in other areas and Godfrey-Phillips also entered cigarette production by setting a factory in Bombay during 1910s (Duvvury, 1985). The trends in cigarette consumption were on increase. There were two sharp dips in this trend, first during 1910-11 and second during 1919-22 due to boycott of foreign goods by Indian masses (ibid). In spite of this, there was around fourfold rise in cigarette consumption from 1900 to 1928-29 (ibid). By 1937-38, the cigarette consumption increased to about 28 million pounds and the cigarette factories were widely spread across the country (ibid). This also increased the need to grow superior grade American Virginia tobacco leaf in India itself and by 1937-38 nearly half of the Indian tobacco used for cigarette manufacturing was FCV tobacco. Also the second round of import tariff made American leaf costlier which further accounted for expansion of FCV tobacco cultivation in India itself. Also the transport became difficult during World War I (Duvvury, 1985).

During initial increase in FCV tobacco cultivation in India, the contract system was the main form of relationship between tobacco trading capital and the tobacco producer (Duvvury, 1985). Contract system was the means of providing an assured market to the tobacco cultivator but at the same time it enabled the tobacco trading companies to exploit the cultivators. Only 30-40 percent of the export price was transferred to the cultivator. Also the company could reject the entire lot of tobacco or the company could under-value the lot of

tobacco, assigning it a lower price on the pretext that the quality was not up to the mark. Farmers were at the mercy of company officials and the companies used to set the price for tobacco leaf. As a result the farmers were forced to sell at a lower price and also could not sell their produce to other buyers (ibid).

During periods of high export, leading British cigarette manufacturers established British Indian Tobacco Corporation Limited (BITC) in Guntur, India to purchase tobacco. ILTD and BITC directly consigned leaf to affiliated manufacturing firms. By the end of 1930, several cigarette manufacturing companies were established in India. Vazir Sultan Tobacco Company Limited of Hyderabad produced cigarette brands like “Charms, Charminar special filter, Charminar plain and Charminar standard”. Golden Tobacco Limited of Bombay and Godfrey Cigarette manufacturing Company of Delhi were also established in the decade of 1930s (Kumar, 2013). Golden Tobacco Company started with Snuff market and then Khaini, chewing tobacco and spit tobacco. Golden Khaini (Bengali) was its oldest product launched in Tin containers. Godfrey Phillips had a popular cigarette product called Marlboro. It was taken up by Modi enterprises. The Godfrey also launched its SLT products. One of the most popular SLT product of Godfrey is “Pan Vilas” pan masala which is also advertised a lot these days.

Evolution of Indian tobacco Industry –

In 1937, the tobacco traders formed the Indian Tobacco Association (ITA). The association included exporters, traders of native leaf, brokers and commissioning agents (Duvvury, 1985). By the end of 1940s, the cultivation of FCV tobacco was widespread in the country and there emerged trade rivals or competitors of ILTD and alternative marketing outlets for producers. The importance of UK market declined. China and Japan emerged as major importers of Indian leaf. The export markets also developed in West Germany. Thus it became very difficult for ILTD to maintain contractual obligations and the contract system gradually came to an end with the emergence of direct purchase at the village level through intermediaries (Kumar, 2013).

“The buying points of tobacco opened by the traders in the villages were called depots. Thus the depot system for trading tobacco emerged. The important trading firms started permanent buying points called branches having facilities for grading and processing of FCV. In the depot system, there was absence of any contractual relationship between traders and farmers. There was no regulation of price and the mode of payment and the price formulation was

entirely on the basis of personal negotiation. The government was unable to fix farm-level minimum export prices and thus buyers of tobacco crop had upper hand in depot system of tobacco market” (Kumar, 2013, p. 123).

In 1939, Guntur Tobacco Marketing Committee (GTMC) and in 1947 the Indian Central Tobacco Committee (ICTC) were established. GTMC and ICTC called for regulation of tobacco trade and introduction of auction system. The auction system began in Guntur town, covering an area of 10,000 acres but ILTD and other exporters were not interested in this auction system and tried to continue with the old system. In 1953, a one man commission was appointed by the Government of Andhra Pradesh to suggest measures for the welfare of tobacco farmers and promotion of tobacco trade. The commission recommended introducing compulsory auction system with facilities of auction yards, storage and grading staff. Again in 1971, a committee under the chairmanship of Sri M R Pai suggested measures for setting up auction system but the suggestions could not materialise (Kumar, 2013).

In 1965 and 1972, the state trading corporations (STC) undertook price control measures and during 1977-78 STC introduced a scheme under which it enrolled a number of small and medium packers to produce tobacco for export. The STC also preferred only the higher grade tobacco and still did not find buyers for the stocks it held and thus lost heavily. In 1976 the **Tobacco Board** was set up under the ministry of commerce with its headquarters at Guntur to regulate the production and trade of tobacco. The Tobacco Board Act 1975 (Amendment 1978) empowered the board to establish auction platform and function as an auctioneer. The tobacco board designed an auction system for India after studying several auction systems prevailing in other countries including Zimbabwe, USA and Canada (Kumar, 2013).

The auction system of India was primarily based on Zimbabwe model but also included several features of other auction systems prevailing in world and was oriented towards typical socio-economic conditions of Indian tobacco farmers and traders. Under the Indian Auction System,

“Farmers grade the produce by certain standard yardsticks and offer the graded product at auction floors. This ensures a fair deal for the farmers and gives them direct knowledge of manufacturers’ requirements in terms of quality. Minimum floor prices are fixed and any produce for which there are no bids is taken over by the auction floor officials, in order to re-offer

subsequently or held as buffer stocks. This way the tobacco board functions as stabilising agency.” (Kumar, 2013, p. 124)

The tobacco growers formed an association in 1990s to represent them to the government and called, “Indian Tobacco Farmers’ Association”. The association got affiliations from various political parties [mainly CPI and CPI(M)] and continued to fight for the welfare of tobacco growers (Kumar, 2013). A separate association called “Andhra Pradesh Virginia Tobacco Growers’ Association” formed towards the end of twentieth century and is constantly supporting FDI (Foreign Direct Investment) in tobacco sector (ibid). The tobacco industry has brought social mobility in the villages where tobacco farming is done (Kumar, 2013). The globalisation of tobacco market economy has had a huge impact on socio-economic conditions of people involved in this industry right from small labourers, farmers, traders and big investors.

A large number of Dalits are engaged in tobacco farming and tobacco processing in small villages and towns of tobacco growing states especially Andhra Pradesh. Most of them used to work under Jajmani system and were oppressed but now some of them have taken agricultural land on lease from upper caste members and very few of them have purchased the land (Kumar, 2013). Brahmins were selling their lands on a large scale as they were slowly migrating from villages to the urban areas (ibid).

The economic conditions of Dalit tobacco farmers have improved and they are able to send their children to professional courses like polytechnic, engineering, and medicine. In order to encash this opportunity, a large number of private colleges are established in these areas. The children of Dalit tobacco farmers are able to get employment in government departments due to provision of reservation and this result in further improvement of their socio-economic conditions (Kumar, 2013).

Left political parties in these tobacco growing areas have been demanding higher wages for workers in tobacco industry and tobacco agriculture. The positions of village Sarpanch in these areas have been captured by the Dalits and thus making Dalits in tobacco growing villages as socially and economically superior to other castes (Kumar, 2013). In these villages, Dalits draw water from the same village well used by upper castes and also participate in Hindu rituals and Hindu weddings and dine with the Non-Dalits (Kumar, 2013). Thus social and economic conditions of tobacco growers underwent a change towards the end of twentieth century and became favourable for tobacco growers (Kumar, 2013). But with the

expansion of tobacco agriculture, cropped area under other food grains constantly decreased (Duvvury, 1986).

Mythology as a determinant of tobacco use –

The answer to question why people use tobacco also lies in our antecedents. The historical archives are filled with startling facts about the relationship of man with tobacco. The origin of tobacco use has been cited in our customs and in our folktales. In ancient Sanskrit tobacco has been referred to as, “Tamrakuttah” or “Tamakhu”.

There are some popular folktales mentioning origin of tobacco use among Indian tribesmen. Here I am mentioning three folktales from Baiga tribe of Central India, Santal tribe of eastern and south-eastern India, and Khasi tribe of the north-eastern India respectively (Chanda, 2017).

Baiga tribes of Central India have great sentiments concerning tobacco and they consider it most important for living, more than even food. The time-honoured folktale of this tribal community goes as follows –

Once upon a time, A Raja had only single child as daughter. Unfortunately, she had congenital deformities. She was dwarf and cross-eyed. She had body sores all over and was handicapped. When the girl reached marriageable age, the Raja started searching a suitable match for her. He travelled across many kingdoms and offered lots of wealth to the prospective groom. Many young men got lured by the wealth of Raja but all of them ran away after looking at the girl. The hapless girl turned old unmarried. One unfortunate day, she said to her father, “What life is mine being unmarried? Even animals and insects live in pairs. I will prefer dying rather than living being rejected and miserable”. Saying this she breathed her last and died.

The grief-stricken king copiously decorated the body of his dear daughter for burial. However the wise-men suggested that he should cremate it. Therefore the king prepared an imposing pyre and burnt his poor daughter’s body. Soon the body was completely burnt into ashes, except a small piece of the bone from her back. The soul of the girl travelled to the ‘GOD’ who asked her if she had any wish. The girl pleaded, ‘I was very unhappy in my lifetime, as no one desired me. Now make me something that would make the whole world love me.’ The God granted her wish, and sent her soul back to the pyre and into the leftover bit of unburned bone. In due course, out of that bone grew a lush green plant and that was tobacco.

One day a goatherd passed by and noticed that lush green plant. Out of curiosity, he tore off a leaf and smelt it, noting its redolence. He picked some seeds from the plant and sowed them in his courtyard. One day he chewed a leaf of the plant, and found it extremely pleasant. Thereafter he made a habit to chew it every day. The goatherd shared his pleasure with his friends. All of them took the seeds of the plant from him and sowed them in their courtyards. Then the tobacco spread around the world. People immensely liked the taste of tobacco, so much so that they would say, “there was no difference between tobacco and wife, and we love them equally.’ The girl who died after long time of rejection, was finally happy to see that all the wise-men loved her, and no one went to work without first touching their lips to the tobacco.

Similarly Santal tribesmen, natives of eastern and south-eastern India, have a popular folktale among them. This one is also regarding an unhappy unmarried girl, who died being single and was unceremoniously cremated.

The tribal god, Chandu, took pity on that girl and said, “Alas! I sent this woman into the world and she found favour with no one. I will confer a gift on her which will make men ask for her everyday”. The tribal God then grew tobacco at the site of her cremation. In due course, the place turned into a lush green plantation of tobacco. A goatherd passed by this plantation and his goats greedily started eating the leaves of the plant. Out of curiosity, he picked up a leaf and tasted it, but he spat it out as it tasted bitter. After few days, the goatherd experienced a tooth-ache, he tried many remedies but all in vain. Then he picked up a few leaves of that bitter plant and chewed them. He kept the leaves in his mouth for some time. He was surprised to found that his tooth-ache was completely cured. Soon he got into the habit of chewing tobacco leaves.

One day, the goatherd boy picked up a limestone and rubbed it between his fingers. The piece turned into a white powder which he smeared in his hands and picked up a few tobacco leaves for chewing. Suddenly he realised that the leaves tasted better. From that day onward, he made a habit to chew tobacco mixed with lime and the practice gradually spread to whole Santal tribal community.

Thereby the Santal tribesmen believe that chewing tobacco is a good remedy for tooth-ache, or other gum ailments.

There is a sociable custom among many North-eastern tribes especially Khasi tribesmen; that they offer betel nut, betel leaf (Paan), and a whiff of tobacco from the hookah or pipe to visiting guests or friends. There is a very interesting folk-tale behind this custom.

Long-time back, in a Khasi village, there lived two boys, U Riwbha and U Baduk. They were very good friends. Father of U Riwbha was very rich landlord; while the father of U Badak was poor farmer. Both the boys used to enjoy their friendship but as they grew up they got busy with their work. U Riwbha had to take care of the property work of his father, and U Baduk had to help his father in the fields.

Soon both the boys got married; U Riwbha to a beautiful girl from a very wealthy family, and U Baduk to a girl from a poor family in a distant village, and as per the Khasi custom, went away to the bride's village to live with them. Circumstances made the two friends live apart; but whenever U Baduk visited his native village, he never forgot to visit his friend. U Riwbha also always welcomed his old friend and the two used to spend most of their time together.

Once, when U Baduk returned from his village, his wife told him that their neighbours were making taunting remarks about their friendship with a wealthy friend. They believed this friendship to be a false sense of pride. They had doubts over why only U Baduk visit U Riwbha and the latter had never visited him even once.

U Baduk got immensely disturbed by this remark. When he visited U Riwbha again, he asked him straight off, "It's me who always come to see you and partaking of your hospitality, but you have never come to see me once since I got married". To this U Riwbha answered that actually he do not get time from family business but still he admitted his fault and promised to visit him the day after. U Baduk was very happy and hastened back home to tell his wife this news and to cook something tasty for their friend. But suddenly they got saddened as there was neither rice nor fish in their home. Then they thought of borrowing it from neighbours. The wife visited all of her neighbours but nobody could spare her any rice or fish. She returned home empty handed and by this U Baduk got extremely disturbed and thought of committing suicide. He took a knife and stabbed himself. His wife got shocked and she too stabbed herself to death.

That very night, a robber was wandering through the street. It was a cold night and the robber sneaked into the house upon seeing the burning fire. Soon he felt asleep by the warmth of the room. When he woke up next morning, he noticed dead bodies in the room. He got panicked

that neighbours will think he would have killed these people. He thought it better to commit suicide than to be caught as murderer. Thus he took the knife and stabbed himself to death.

As the day advanced, neighbours got worried as there was no sign of any activity in the house of U Baduk. They flocked in to see the matter. Upon seeing the dead bodies of U Baduk and his wife, the neighbours filled with remorse as they remembered how they had refused to lend them any food the day before.

By evening, U Riwabha reached the house as per his promise. The people were gathered there and told him about the tragedy. He struck with grief and wailed loudly, “Alas! That a man should lose such a true friend, just because it is so hard for the poor to give hospitality to a friend, which is greater a burden than they could bear”. He kept praying for several hours to the Almighty God to show a way of keeping up the custom of hospitality, without the poor having to suffer and be cursed.

Finally God listened to his prayers and there grew three valuable plants at the place of three dead bodies. These plants were betel-nut, betel-leaf (Paan), and tobacco. These plants were to be used by mankind in the future as a means of entertainment and hospitality, whereby the poor as well as the rich could entertain friends and relatives without being burdened. From that time onwards, it became a custom among Khasi households, to offer betel-nut, betel leaf and a whiff of tobacco to the visiting guests, friends and relatives.

These folk-tales show that the habit of tobacco use is so-much deep rooted even amongst tribes of India. Tribals are known for preserving their natural environment. No modern amenities could penetrate in to their natural habitat. But tobacco as it was introduced in about 1605, got so popular even among tribes, that it was able to secure its place in their folk-tales, to make sure that the habit continue generations after generations and so the business of tobacco.

Conclusion –

To conclude, there exist very powerful socio-cultural determinants of tobacco use in India. Right from its introduction in to Royal court of Mughals, to religion, culture, social values and tribes; the tobacco was very careful with its steps. Now that it has come a long way, it gained popularity throughout its journey. As we have stepped into twenty-first century; we have plethora of epidemiological evidence regarding its harmful effects on health. The

tobacco control associations are also getting stronger as the tobacco lobby did. One thing is for certain; it is very important to study socio-cultural roots of tobacco use habit before moving further into policy making. Thus policies related to tobacco use should also address socio-cultural issues associated with it.

References Chapter 2

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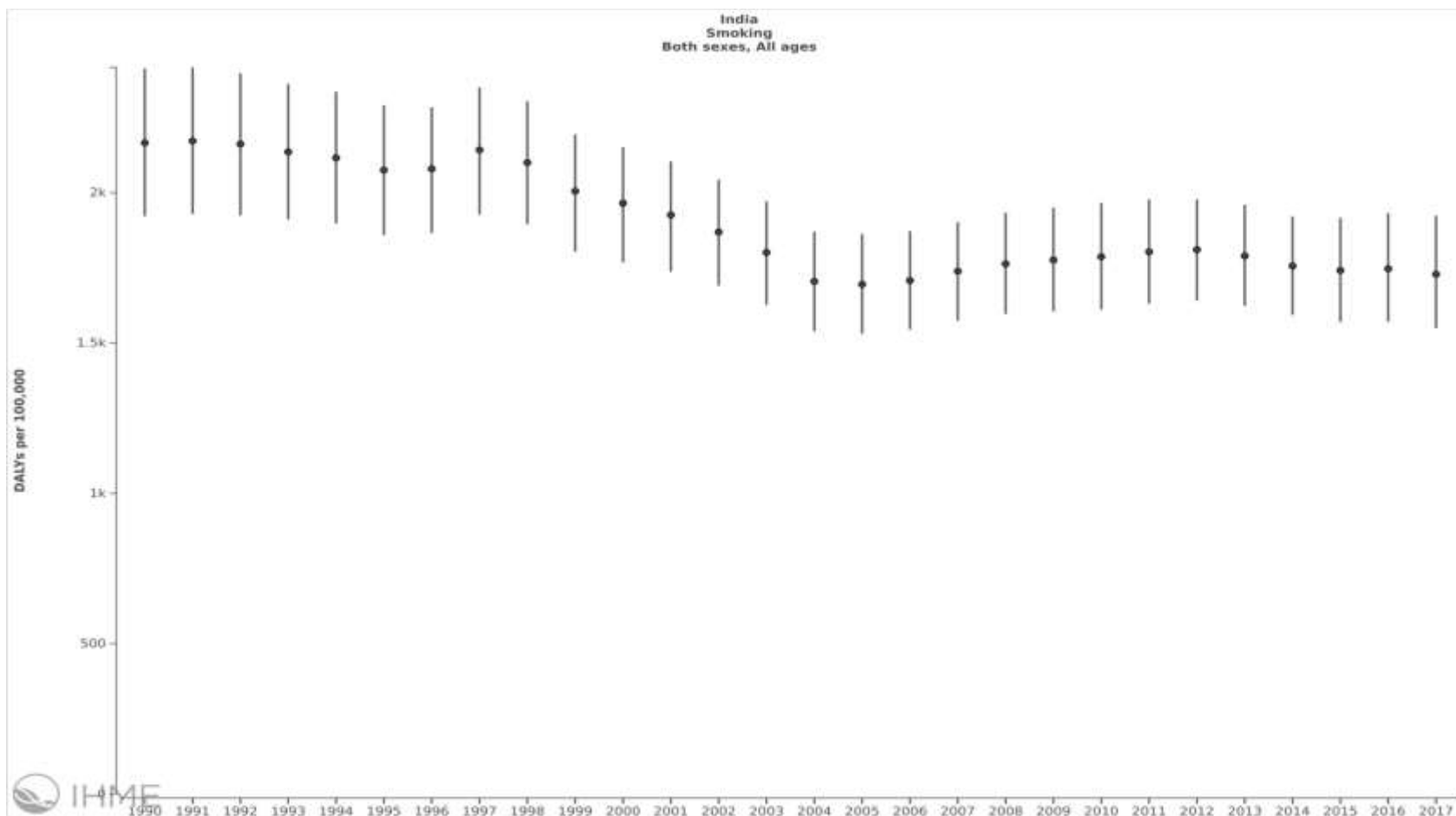
Chapter 3 – Conceptualisation of Study

Smokeless Tobacco Use and Public Health

Smokeless Tobacco (SLT)

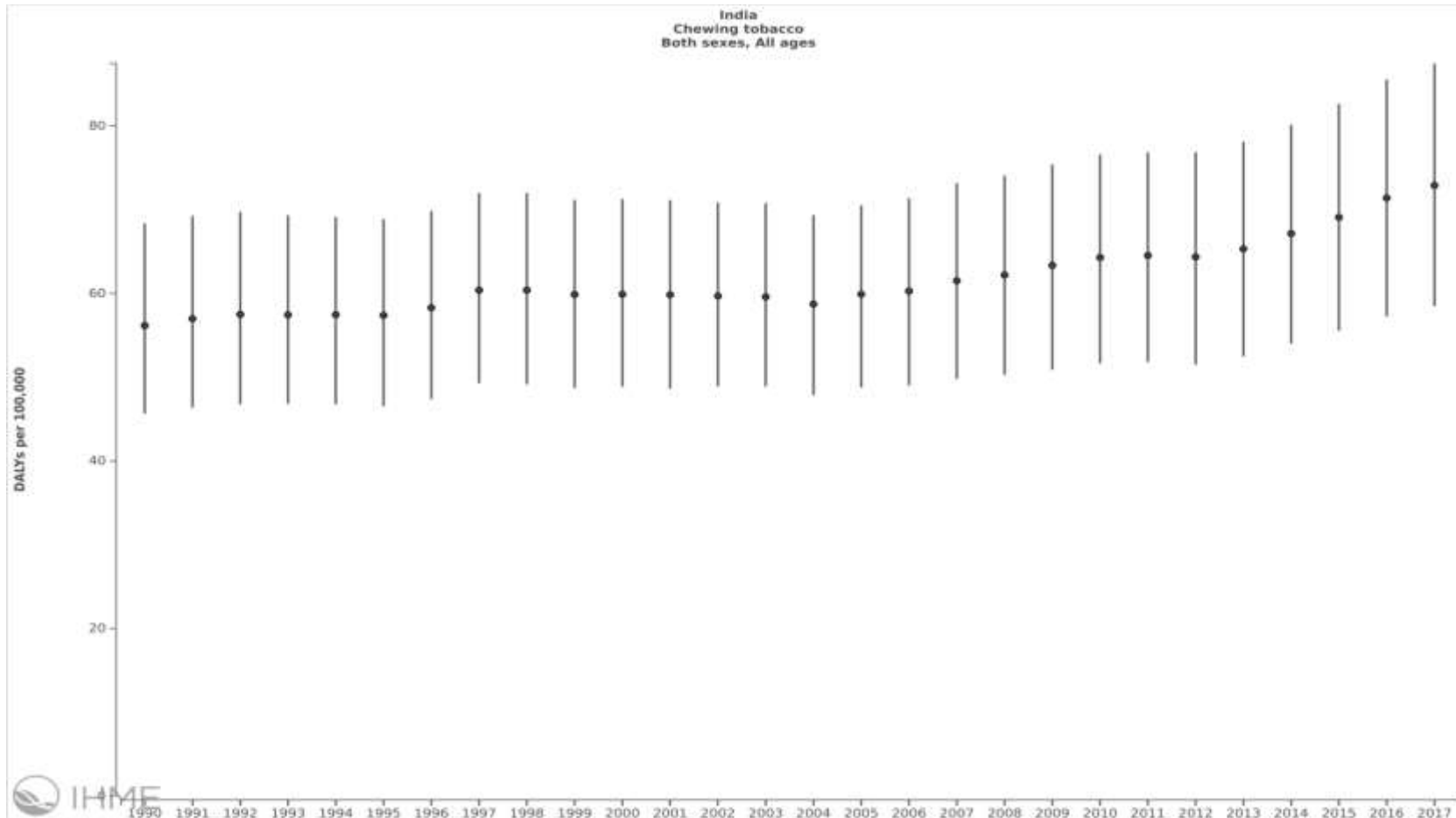
Smokeless tobacco (SLT) is used worldwide in different forms. Oral use of smokeless tobacco is widely prevalent in South-East Asia (NCI, 1993). According to recent STEPS survey in Myanmar, the prevalence of current SLT users was 29.6 percent. The prevalence of current SLT users was 19.7 percent in Bhutan and 15.8 percent in Sri-Lanka (STEPS Surveys). SLT use prevalence was also high in Bangladesh (27.2 percent) according to GATS 2009. In India, prevalence of smokeless tobacco use among adults (>15 Years) was 21.4 percent with 29.6 percent among men and 12.8 percent among women in 2016-17 (GATS 2 Report). India had about 200 million, the largest number of smokeless tobacco users in the world (ibid). In India, most common forms of smokeless tobacco used orally include “Khaini (Sun-dried or fermented, coarsely crushed tobacco leaves), Gutka (Sun-dried finely chopped tobacco, areca-nut, slaked lime, Catechu), betel quid with tobacco (a combination of betel leaf, areca nut & slaked lime), Gul (mixture of tobacco and molasses is applied to teeth and gums) and mishri (roasted powdered tobacco is applied to teeth and gums)” (IIPS & MoHFW, 2010). Also in India, 11.2 percent of adults used Khaini, 6.8 percent used Gutkha, 5.8 percent used betel quid with tobacco and 3.8 percent used tobacco products that are applied to teeth and gums such as gul, mishri or gudahku (ibid). The mean age of initiation of smokeless tobacco use was about 18.8 years among Indian adults (ibid). The prevalence of smokeless tobacco use among 13-15 year age group youth was 9 percent in the country with 11.1 percent among boys and 6 percent among girls (GYTS, 2009). The data mentioned in this para explains the gravity of the problem of smokeless tobacco use in India. Also the data collected by IHME (Institute of Health Metrics and Evaluation) shows that, in India DALYs (Disability Adjusted Life Years) attributable to **Smoking** as a risk factor has decreased over a period of three decades; whereas DALYs attributable to **Chewing Tobacco Use** as a risk factor has increased over a similar period of three decades (Refer to Figures 3.1 and 3.2). These graphs show us that chewing tobacco is growing as a major public health concern in India; therefore it becomes imperative to conduct research on this topic and search for its social determinants.

Figure 3.1 – Graph showing DALYs (Disability Adjusted Life Years) attributable to **Smoking in India** over a period of three decades.



Source of Data - GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: **Institute for Health Metrics and Evaluation**; 2018.

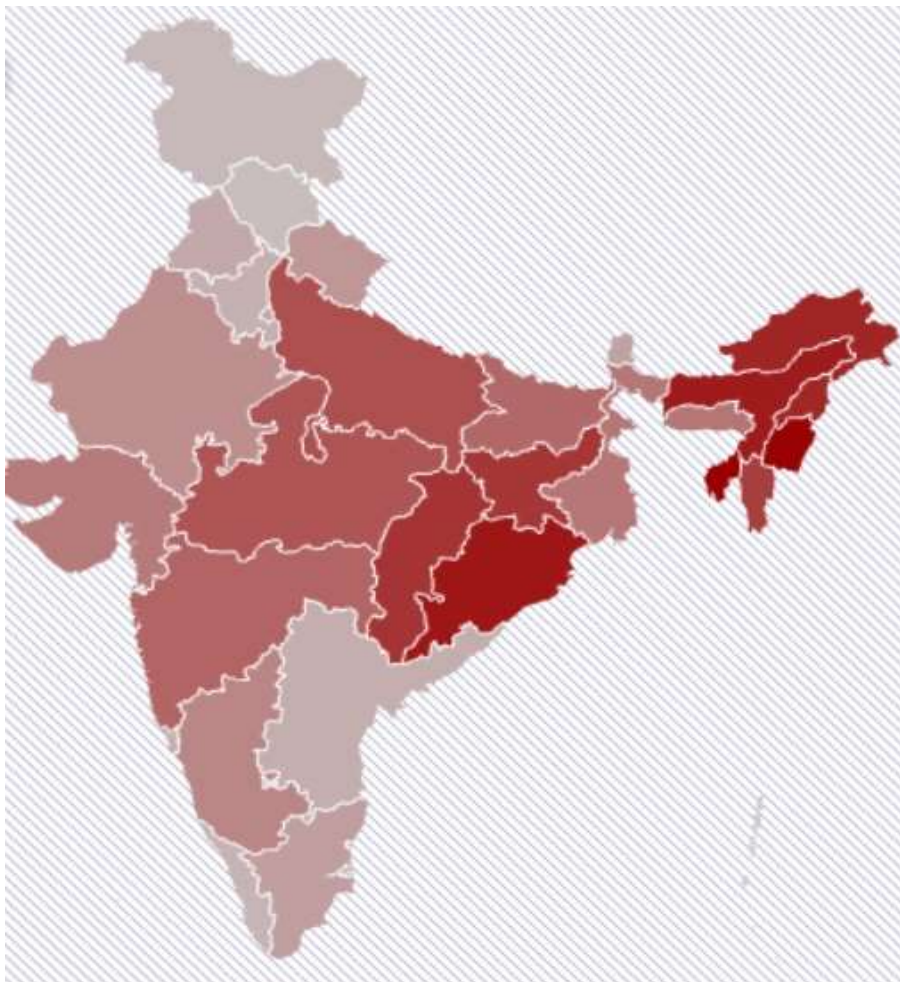
Figure 3.2 - Graph showing DALYs (Disability Adjusted Life Years) attributable to **Chewing tobacco in India** over a period of three decades.



Source of Data - GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: **Institute for Health Metrics and Evaluation**; 2018.

The following map shows prevalence of current smokeless tobacco use among different states/UTs based on GATS India 2016-17 data (Refer Map 1). It is evident from map that prevalence of smokeless tobacco use is high in north-east and eastern states of India. The prevalence is highest in Tripura (48.5%) and Manipur (47.7%); where almost half of the population uses smokeless tobacco. On the other hand prevalence of SLT is lowest in Himachal Pradesh (3.1%), Jammu & Kashmir (4.3%), Puducherry (4.7%), and Kerala (5.4%). Moreover Chandigarh (6.1%), Haryana (6.3%), Goa (6.5%), and Andhra Pradesh (7.1%) also have relatively low prevalence (Refer Map 3.1).

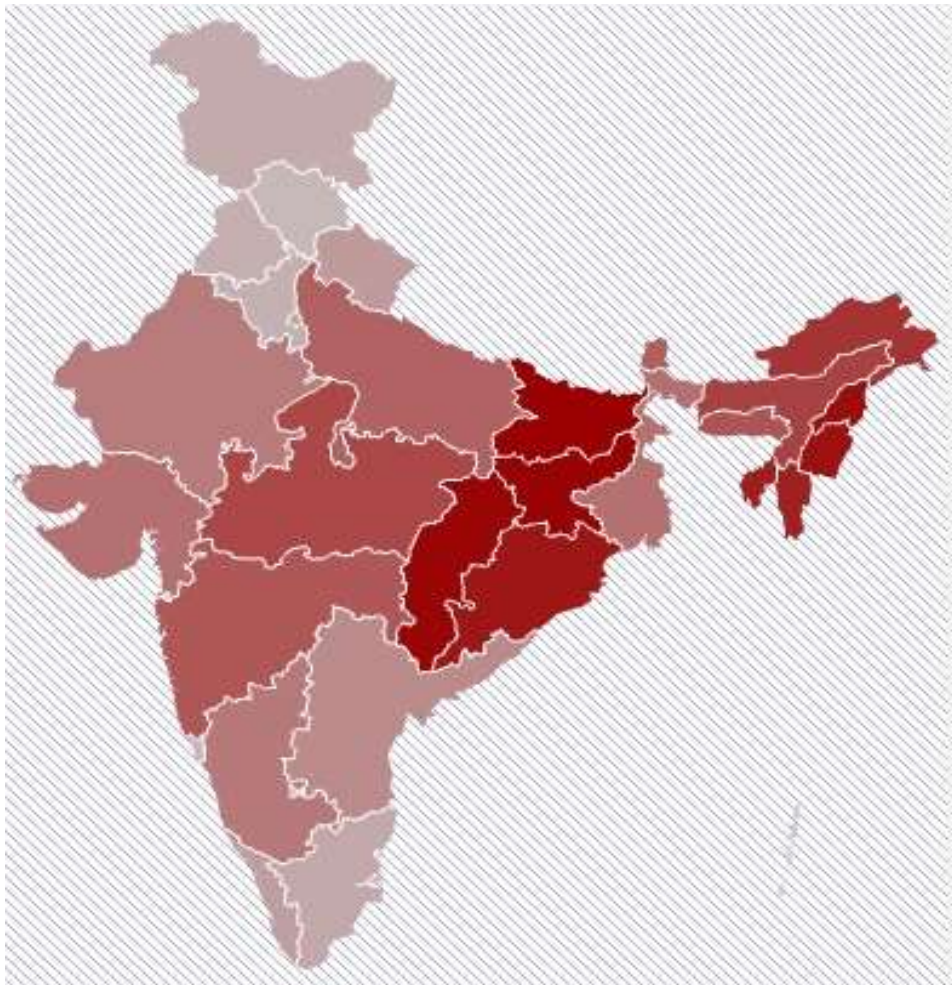
Map 3.1 – Choropleth Map showing Relative Prevalence of current **smokeless tobacco** use across Indian states/UTs, GATS India **2016-17**.



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

The prevalence of current smokeless tobacco use among different states/UTs was slightly different in 2009-10 (Refer Map 3.2). Here the prevalence was highest among Eastern states i.e. Bihar (49%), Jharkhand (48%) and Chhattisgarh (47%). Nevertheless the prevalence was also high in North-Eastern states i.e. Nagaland (45%), Manipur (45%), Tripura (41%) and Mizoram (41%) (Refer Map 3.2).

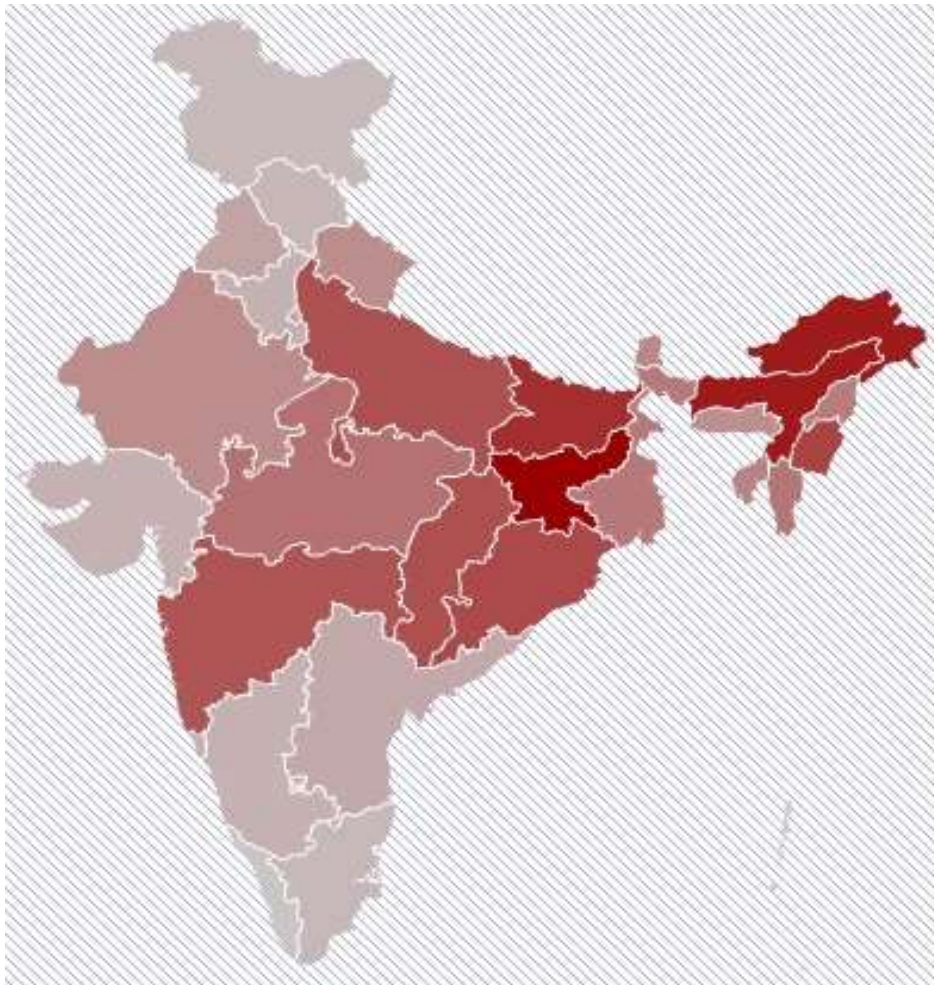
Map 3.2 – Choropleth Map showing Relative Prevalence of current **smokeless tobacco** use across Indian states/UTs, GATS India **2009-10**



Source of Data - GATS India (2009-10). International Institute for Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey India (GATS India), 2009-2010.

The following map shows prevalence of Khaini use among different states/UTs based on GATS India 2016-17 data (Refer Map 3.3). It is evident from map that prevalence of Khaini use is high in Jharkhand (26.6%), Assam (23.1%), Arunachal Pradesh (22.9%) and Bihar (20.4%).

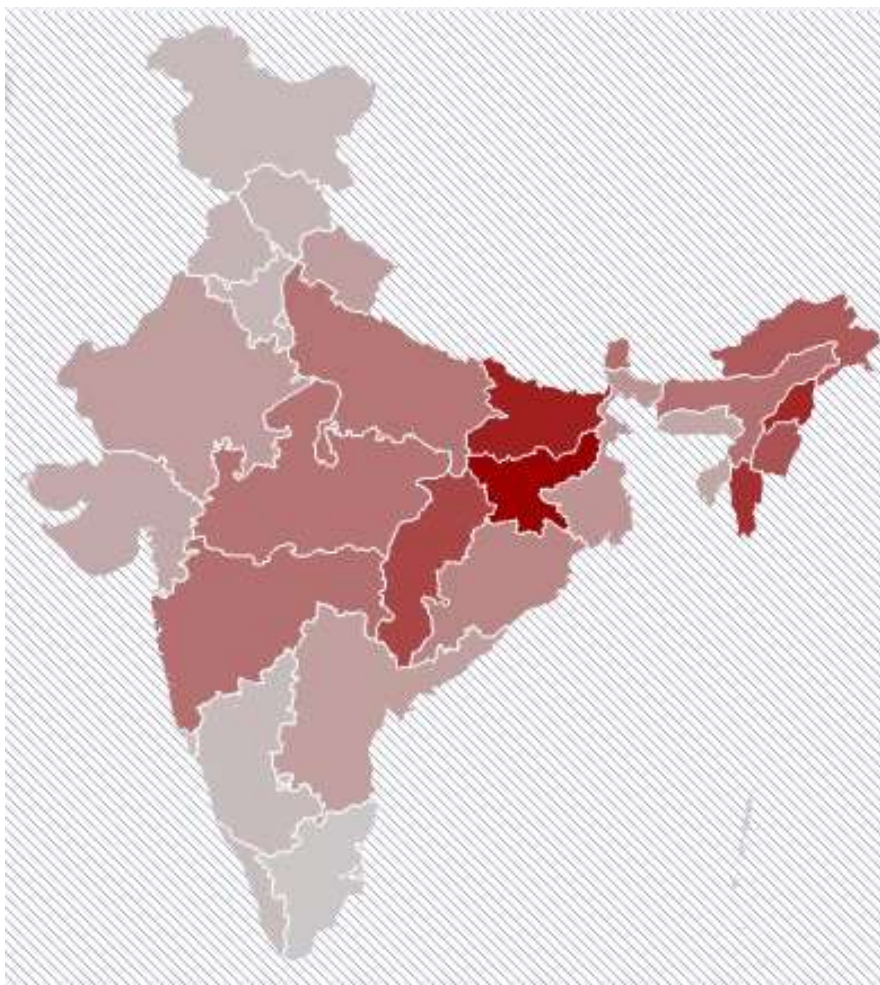
Map 3.3 – Choropleth Map showing Relative Prevalence of **Khaini** use across Indian states/UTs, GATS India **2016-17**



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

The prevalence of Khaini use among different states/UTs was slightly different in 2009-10. The following map shows prevalence of Khaini use among different states/UTs based on GATS India 2009-10 data (Refer Map 3.4). It is evident from map that prevalence of Khaini use was high in Jharkhand (32.6%) and Bihar (27.6%) as compared to rest of the India.

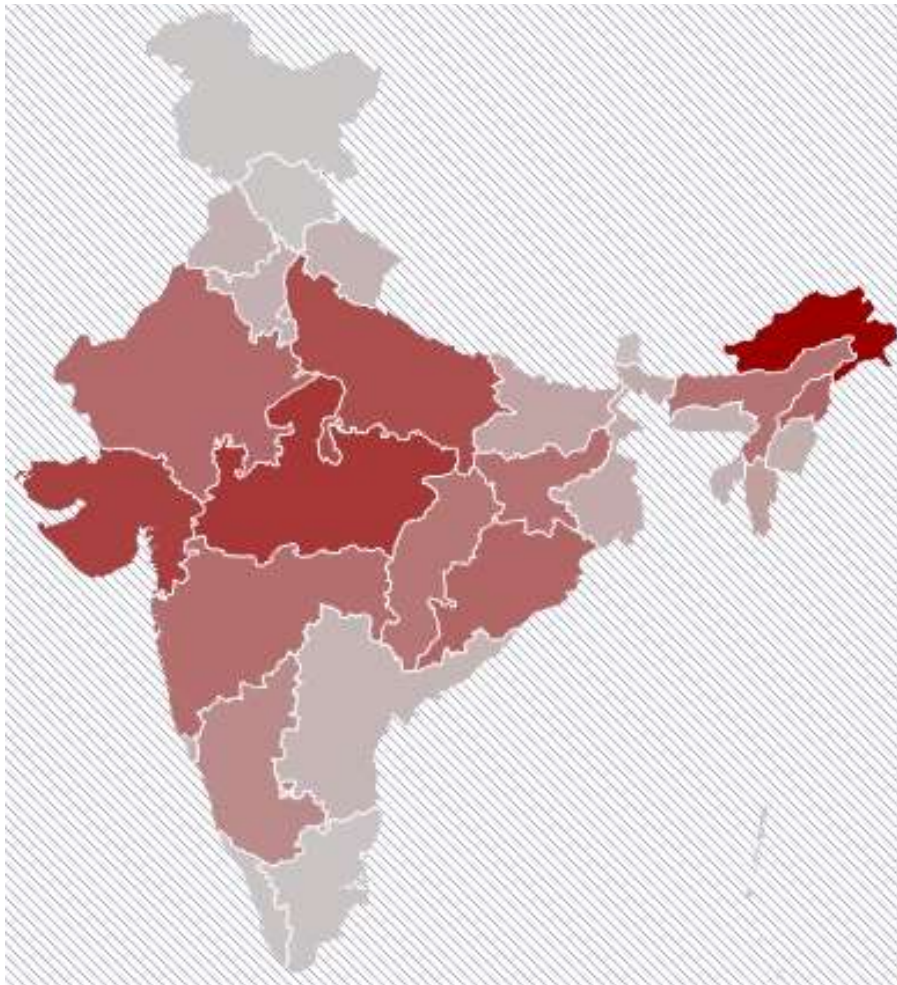
Map 3.4 – Choropleth Map showing Relative Prevalence of **Khaini** use across Indian states/UTs, GATS India **2009-10**



Source of Data - GATS India (2009-10). International Institute for Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey India (GATS India), 2009-2010.

The following map shows prevalence of Gutkha use among different states/UTs based on GATS India 2016-17 data (Refer Map 3.5). It is evident from map that prevalence of Gutkha use is high in Arunachal Pradesh (18.9%), Madhya Pradesh (13.7%), Gujarat (12.8%) and Uttar Pradesh (11.5%).

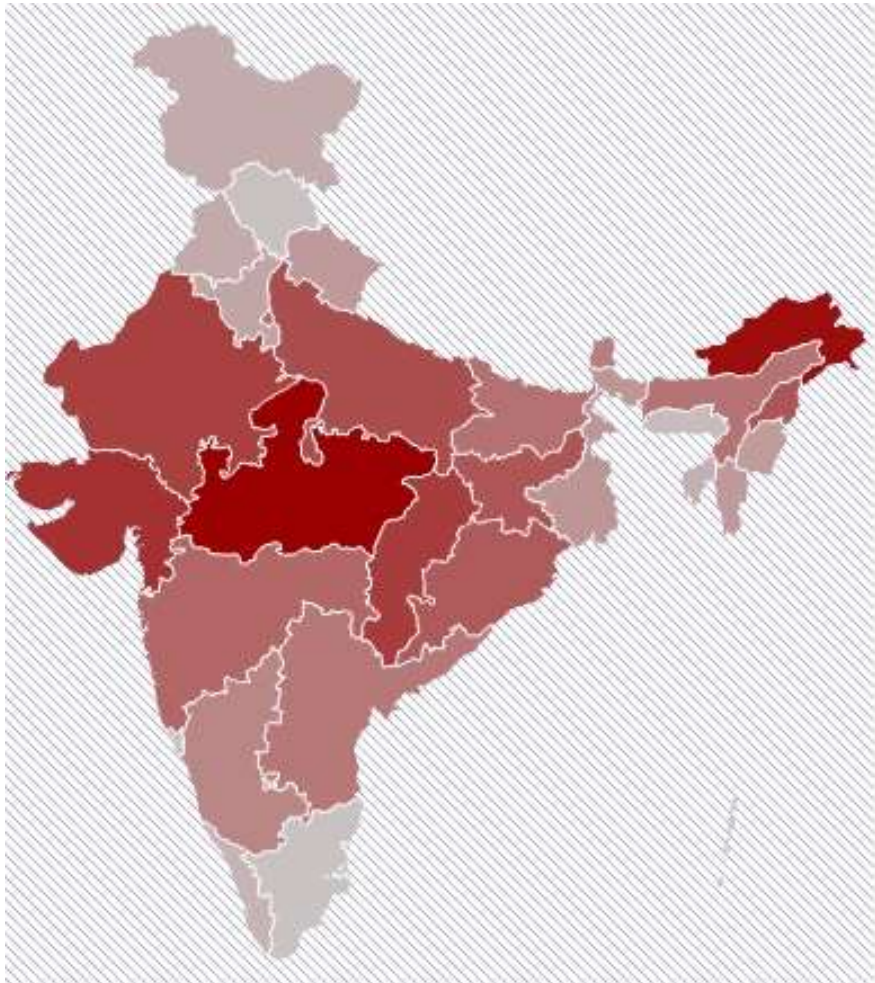
Map 3.5 – Choropleth Map showing Relative Prevalence of **Gutkha** use across Indian states/UTs, GATS India **2016-17**



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

The prevalence of Gutkha use among different states/UTs was slightly different in 2009-10. The following map shows prevalence of Gutkha use among different states/UTs based on GATS India 2009-10 data (Refer Map 3.6). It is evident from map that prevalence of Gutkha use was high in Madhya Pradesh (17%) and Arunachal Pradesh (15.9%) as compared to rest of the India.

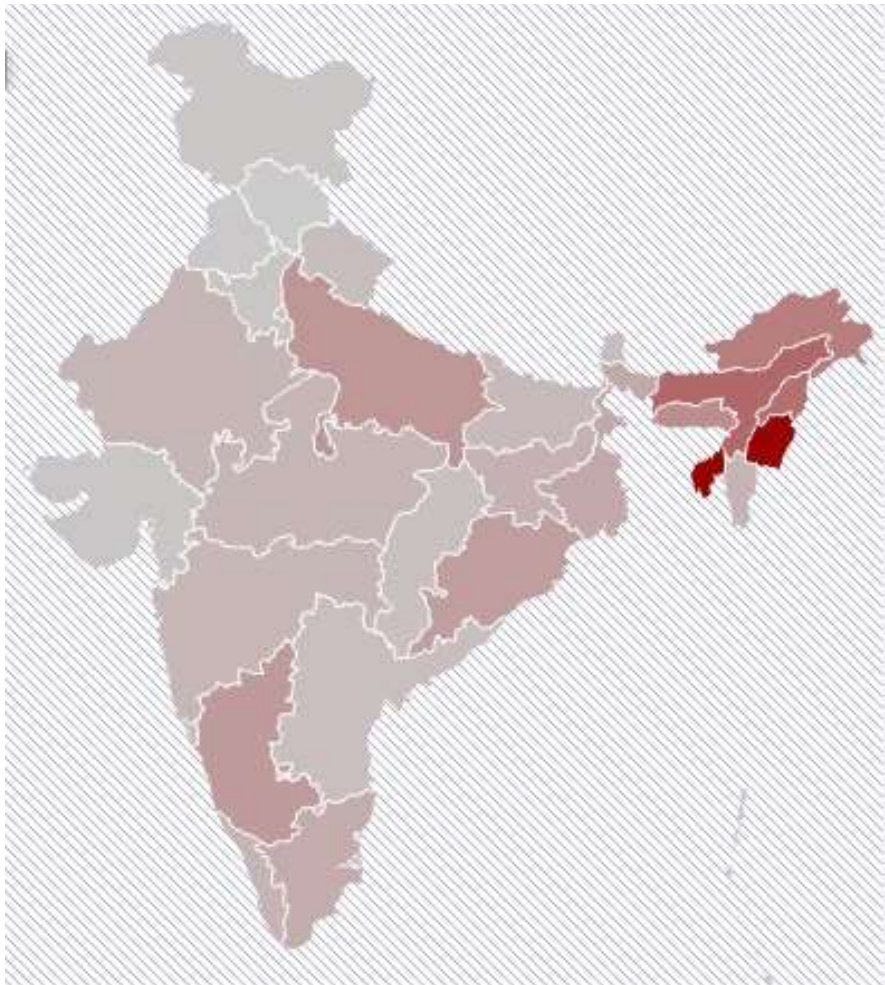
Map 3.6 – Choropleth Map showing Relative Prevalence of **Gutkha** use across Indian states/UTs, GATS India **2009-10**



Source of Data - GATS India (2009-10). International Institute for Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey India (GATS India), 2009-2010.

The following map shows prevalence of Betel Quid (with tobacco) use among different states/UTs based on GATS India 2016-17 data (Refer Map 3.7). It is evident from map that prevalence of Betel Quid (with tobacco) use is high in Tripura (39.5%) and Manipur (38.6%) as compared to rest of India.

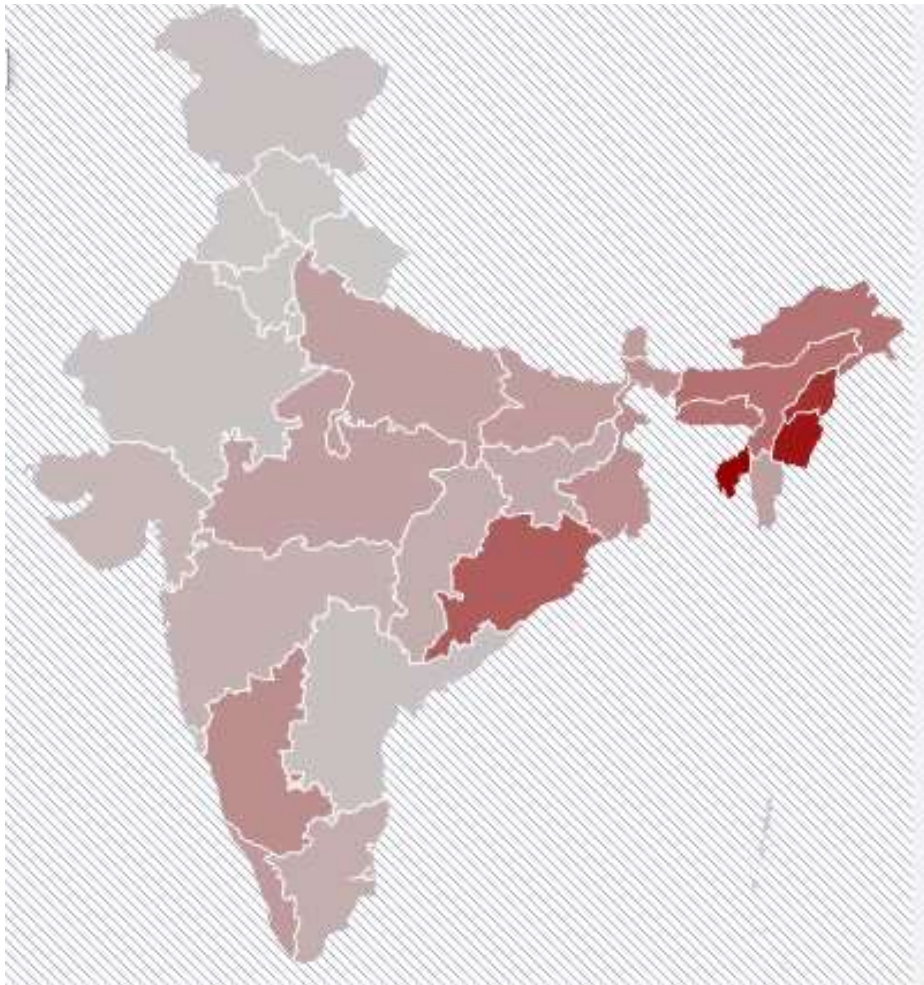
Map 3.7 – Choropleth Map showing Relative Prevalence of **Betel Quid (with tobacco)** use across Indian states/UTs, GATS India **2016-17**



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

The following map shows prevalence of Betel Quid (with tobacco) use among different states/UTs based on GATS India 2009-10 data (Refer Map 3.8). It is evident from map that prevalence of Betel Quid (with tobacco) use was high in Tripura (32.8%), Manipur (29.5%) and Nagaland (25%) as compared to rest of the India.

Map 3.8 – Choropleth Map showing Relative Prevalence of **Betel Quid (with tobacco)** use across Indian states/UTs, GATS India **2009-10**



Source of Data - GATS India (2009-10). International Institute for Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey India (GATS India), 2009-2010.

Smokeless tobacco products contain almost 4000 chemical constituents which are very harmful for human body (Rodgman & Perfetti, 2009). Smokeless tobacco has been classified as a Group I carcinogen (carcinogenic to humans) by IARC (International Agency for Research on Cancer) (IARC, 2007). The most potent carcinogenic compounds include N'-nitrosornicotine (NNN) and 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) (Hecht, 1998). Some smokeless tobacco products including mawa, betel quid, tamol and mainpuri contain areca-nut which is also classified as a Group I carcinogen by IARC (IARC, 2004). A study has revealed considerably high levels of copper (237-656 µg/g) in Indian Gutka products (Dhaware et al., 2009). The copper content of areca-nut is also high (Trivedy et al., 1997). The studies suggest that “copper upregulates lysyl oxidase which results in excessive cross-linking and accumulation of collagen and finally oral submucous fibrosis which is a pre-malignant condition” (ibid). Diphenyl ether and Camphor are added as flavouring agents to smokeless tobacco products (Burdack, 1995). Diphenyl ether irritates mucous membrane and is harmful for liver, kidney, spleen and thyroid (Lisko et al., 2014). “Camphor can adversely affect the cardiovascular, respiratory, neurological and gastrointestinal systems. Even minimal amounts of camphor could result in convulsions followed by depression” (INCHEM, 1988, p. 56).

The studies have also addressed the presence of bacteria mold and fungi in tobacco (Larsson et al., 2008). Bacteria and mold are pathogenic and also convert nitrate to nitrite which leads to the formation of Tobacco-specific-nitrosamines (Fischer et al., 2012; Di Giacomo et al., 2007; Wahlberg et al., 1999). Fungi produce mycotoxins such as aflatoxins which are potentially toxic (Varma et al., 1991).

Table 3.1 summarises the evidence about harmful health effects of smokeless tobacco use (Refer Table 1).

Table 3.1 – Harmful Health Effects of Smokeless Tobacco (Chewing Tobacco): The Evidence

Disease	Evidence	Notes
Oral Cancer	Wahi 1968, Nandakumar et al. 1990, Idris et al. 1995, Znaor et al. 2003, Balaram	The early age of initiation of tobacco use results in more severe consequences.

	et al. 2002, IARC 2007, Lee & Hamling 2009, Boffetta et al. 2008	
Pre-cancerous Lesions (Leukoplakia, Erythroplakia); Oral Submucous Fibrosis	IARC 2004, 2007; Lee et al. 2011	The pre-cancerous lesions could resolve after stopping the use of tobacco.
Oropharyngeal Cancer	Wasnik et al. 1998, Znaor et al. 2003	
Oesophageal Cancer	Phukan et al. 2001, Znaor et al. 2003, Lee & Hamling 2009, Boffetta et al. 2008	
Stomach Cancer	Phukan et al. 2005	
Pancreatic Cancer	IARC 2007, Boffetta et al. 2008, Sponsiello-wang et al. 2008, Pednekar et al. 2011	
Lung Cancer	Boffetta et al. 2008, Pednekar et al. 2011	
Cervical cancer	Rajkumar et al. 2003, IARC 2007, Simen-Kapeu et al. 2009, Gajalakshmi et al. 2012	
Breast Cancer	Kaushal et al. 2010	
Penile Cancer	Harish & Ravi 1995	
Cardiovascular Effects	Huhtasaari 1999, Asplund	Smokeless tobacco leads to

	2003, Granberry et al. 2003, Vidyasagaran et al. 2016	the development of endothelial dysfunction, atherogenesis and atherosclerosis
Hypertension	Benowitz & Gourlay 1997, Gupta et al. 2007, Pandey et al. 2009, Piano et al. 2010	Hypertension could be aggravated by nicotine, sodium and licorice present in tobacco.
Stroke	Benowitz & Gaurly 1997, Boffetta & Straif 2009, Zhang et al. 2010, Piano et al. 2010	Smokeless tobacco also badly affects prognosis after a cardiovascular event.
Diabetes	IARC 2007, Östenson et al. 2012	Smokeless tobacco increases the risk of developing insulin resistance and thus type 2 diabetes.
Adverse Foetal Outcomes	IARC 2004, Gupta & Subramoney 2006, European Commission 2008, Wikstrom et al. 2010	Carbon-monoxide exposure may lead to foetal hypoxia and metals may cause oxidative stress in cells and thus impair foetal nutrition.
Conditions of Nasal Cavity	Sapundzhiev & Werner 2003	Smokeless tobacco that is inhaled nasally develop mucosal oedema of nose; submucosal oedema of conjunctival tissue of the turbinates; atrophy of middle and inferior turbinates; inhibition of

		nasal mucociliary clearance and thus chronic rhinitis.
Dental Effects		
Gingivitis, Periodontitis and mouth ulcers	IARC 2007, Parmar et al. 2008, Sumanth et al. 2008, Nagarajappa & Prasad 2010, Singh et al. 2011, Greer 2011	Gingiva begins to recede within a year of use of smokeless tobacco.
Dental decay and caries	Greer 2011	

DISCUSSION

Majority of the epidemiological studies done on tobacco (smoking and smokeless) are cross-sectional in nature and shows statistical association. These studies are restricted to black-box epidemiology and are statistical attempts to show smokeless tobacco use as a risk factor for various diseases. Limitations of clinical epidemiology is that it studies individual level risk factors and thus policy recommendations of such studies are also targeted towards changing individual behaviours, thus putting the onus of tobacco control entirely on individuals themselves. Such an approach blames the patients themselves for using tobacco and holds them responsible for their diseases because they used tobacco and thereby developed the diseases they have.

According to Nancy Krieger, it is very important to research beyond black-box epidemiology to a wider social epidemiology of health related states and diseases (Krieger, 2001). There is a need to study smokeless tobacco use in “social cohesion” with “social determinants of health”. The problem with black-box epidemiology is that it restricts a clear understanding of mechanisms involved; it simply associates behavioural risk factors with cancers and other diseases. Most of which is statistical association. Thus it becomes important to dismantle the black-box. Nancy Krieger in her article in 2001, discussed three main theories of social epidemiology. These were; “1) Psychosocial theory, 2) Social

production of disease and/or political economy of health and 3) eco-social theory and related multi-level frameworks". In psychosocial theory, Krieger discussed the spider-less web of causation and the importance of 'host- agent- environment' model where social environment plays an important role. While discussing tobacco use as a risk factor for several cancers and other diseases; tobacco industry may be considered as a spider in the web of causation. Social environment also plays a role towards likelihood of tobacco use by individuals. There are pathways by which psychosocial stress results in biological responses as discussed by Krieger. Here, psychosocial stress also increases the likelihood of risky health behaviours such as tobacco use. In second theoretical framework i.e. social production of disease or political economy of health, role of "agency" has been emphasized. This also holds true for tobacco use where tobacco industry is that external agency which decides to a larger extent whether people will use tobacco or not. Krieger in her article criticised "victim- blaming approach" and argued that people do not choose their health conditions; rather these are results of wider socio-political dynamics. Here role of the state or governments is very important. It also holds true in case of tobacco use, where lots of political dynamics interact with each other while regulating or de-regulating tobacco industry.

Krieger further discussed 'eco-social theory', 'eco-epidemiology' and 'social ecological systems perspective' where she added life-course perspective. Here she gave multi-level dynamic perspective where health and well-being is influenced at multiple level i.e. cell, organ, individual, family, community, population, society and eco-system. Regarding tobacco use also, there are certain individual level factors or socio-demographic characteristics of individuals that influence their likelihood of using tobacco. Second level is the availability of tobacco, where marketing strategies of tobacco industry plays a significant role to make the tobacco available at the first place. Next higher level is the regulation or de-regulation of tobacco industry where tobacco control policies play their role. Tobacco control policies are further influenced by various social, cultural and political dynamics which are discussed later in this research. Here economic and social deprivation also plays its role which has been studied in this research. Thus tobacco use is as much an institutional phenomenon as an individual phenomenon. Here it becomes imperative to study the dynamic multilevel interactions between various socio-political institutions which determine the habit of tobacco use.

The World Health Organisation (WHO) has described the Social Determinants of Health (SDH), “as the circumstances in which people grow, live, work and age, and the systems put in place to deal with illness. These conditions in which people live and die are, in turn shaped by political, social and economic forces, and are characterised by the unequal distribution of power, income, goods and services; unequal access to healthcare, schools and education; and conditions in work and leisure settings, home, communities, towns or cities” (WHO, 2008, p. 1).

Rarely any study in India has been conducted to answer the research question as, “Who are the people those use smokeless tobacco?” and “Why do people use smokeless tobacco?” Very few studies have been done in foreign countries particularly UK to show social patterning of cigarette smoking and these studies have shown that cigarette smoking rates increased by social, cultural and material disadvantage and by increasing deprivation (Jarvis & Wardle, 2011). There is a need to conduct such studies in India also and that too for looking at social patterning of smokeless tobacco use in India as the prevalence of smokeless tobacco use in India is higher as compared to prevalence of cigarette smoking (Global Adult Tobacco Survey (GATS) India 2009-10 and GATS India 2016-17).

According to Mervyn Susser, “states of health do not exist in a vacuum apart from people. People form societies and any study of the attributes of people is also a study of the manifestations of the form, the structure and the processes of social forces” (Berkman & Kawachi 2014, p. 5). According to Eco social theory proposed by Nancy Krieger, it is important to study risk factors at structural level or the factors responsible for population patterns of disease, health and well-being (Berkman & Kawachi, 2014). “The physical, social and cultural world around us plays an important role in susceptibility or immunity to disease agents or risk factors. A branch of epidemiology called Social Epidemiology studies the social distribution and social determinants of states of health. The focus here is on social phenomenon rather than on clinical manifestations of specific diseases or risk factors” (ibid, p.6). Health behaviours including tobacco use behaviour is not a random phenomenon. Rather they show a social and economic pattern and are often clustered with other behaviours (ibid). There are social situations that place individuals “at risk of risks”. Tobacco use behaviour is not solely a matter of “individual choice”. Rather, “environment place constraints on individual choice and incentivize particular choices with promises of social, psychological, financial or physical rewards” (ibid, Pg 8).

Tobacco industry is also one such environmental element that influences individuals' choice regarding tobacco use; play tactics to catch populations as their clients and make them nicotine dependent. The smokeless tobacco industry is one of the most profitable industries in India (CTFK, 2010). The tobacco companies use their enormous wealth and socio-economic influence; both locally and nationally; to sell their products. Even as tobacco control advocates work to battle the tobacco industry's impact, new tactics are used by them to dodge tobacco control efforts (CTFK, 2010).

Thus there are various actors which play a critical role in determining whether people will use tobacco or not and to what extent. If we look at the web of causation where debates continue regarding validity of tobacco use as a cause or just a risk factor among many other risk factors; the question is generally raised that where is the spider in this web of causation or is it just spider-less. With regard to tobacco use at one end of this web, we can say that tobacco industry may act as a spider. Obviously we have many spiders like fast-food industry, alcohol industry, plastic industry etc. as there are multiple risks existing at the same time, along with the risk of tobacco use. Tobacco control policies also determine the behaviour of tobacco industry and the behaviour of consumers. By studying the interactions between tobacco industry and tobacco control policies, we can answer many research questions like why don't governments just put a ban on manufacturing of tobacco. We need to study the systems of tobacco regulation, as there exist dynamic interactions between state, legislature, vested and economic interests of various players, activism, different professional interests and international interests.

Moreover it is also important to look into lives of tobacco vendors, wholesalers, retailers and other people associated with tobacco industry. For an unbiased research it becomes imperative to know their perspectives and how they get affected by tobacco control policies. Thus this research is an attempt to take a panoramic view of social determinants of smokeless tobacco use in Indian population.

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Chapter 4 – Research Methodology

Research Questions

1. Who are the people using “smokeless tobacco” in India?
2. Why do people use smokeless tobacco in India?
3. What are the levels of social determinants of smokeless tobacco use?
4. What role does the smokeless tobacco industry play in determining its usage by its customers?
5. What role do tobacco control policies play in determining the availability and accessibility of smokeless tobacco in India?
6. What are the interactions between tobacco industry and tobacco control policies regarding regulations or deregulations; and how do these interactions influence smokeless tobacco use in India?
7. How do we anticipate the future of smokeless tobacco use in India; based on its social determinants as studied here?

Aim of Study

To study the social determinants of smokeless tobacco use in the Indian population.

Objectives of Study

1. To study the demographic and socio-economic profile of smokeless tobacco users based on an analysis of GATS (Two rounds of GATS – 2009-10 and 2016-17) India data.
2. To analyse evolution, structure and characteristics of the smokeless tobacco industry in India.
3. To study the market strategies of the smokeless tobacco industry.
4. To study the dynamic interactions between tobacco control policies and the smokeless tobacco industry.

Research Design

Research Design for Objective 1 [To study the demographic and socio-economic profile of smokeless tobacco users based on an analysis of GATS (Two rounds of GATS – 2009-10 and 2016-17) India data.]

The study design was cross-sectional secondary data analysis of GATS (Global Adult Tobacco Survey) India, 2009-2010 and GATS 2 (2016-17). Global Adult Tobacco Survey is one of the important components of the Global Tobacco Surveillance System (GTSS). It assists countries in tracking tobacco control indicators. The indicators are comparable across countries and across various rounds of GATS.

GATS is a standardised survey used across nations to measure and compare key tobacco control indicators.

Data sources/ Measurements

The original data sets of Global Adult Tobacco Survey (GATS) India 2009-2010 and GATS 2 India 2016-17 were used, which are available for public use from the CDC (United States Centres for Disease Control and prevention) website, <https://nccd.cdc.gov/GTSSData/Ancillary/DataReports.aspx?CAID=2>,

Settings

“The primary data of GATS 1 India were collected from June 2009 to January 2010 in a household survey by the International Institute for Population Sciences (IIPS), Mumbai; Ministry of Health and Family Welfare, India with technical support from Centres for Disease Control and Prevention (CDC), Atlanta, GA, USA and the World Health Organization (WHO)” (Ruhil, 2016, p. 83).

“The primary data of GATS 2 India were collected between August 2016 and February 2017 in a household survey by the Tata Institute of Social Sciences (TISS) with support from MoHFW, CDC and WHO” (Ruhil, 2019, p. 2). The survey methodology was almost similar to GATS 1, so that comparisons could be made by taking GATS 1 survey as baseline.

Participants

The original GATS India, 2009-10 as well as 2016-17, “included participants aged 15 years and above, on a voluntary basis, after giving informed consent. Participants were included on the basis of three-stage sampling independently in each state/UT and within each state/UT, independently in urban and rural areas” (Ruhil, 2016, p. 83). In the present study of secondary data analysis, the participants were all current smokeless tobacco users aged 15 and above.

Variables

The exposure variables for assessing association were,

1. Age group (65+, 45-64, 25-44, 15-24) in Years,
2. Gender (male, female),
3. Marital Status (Single, Married, Divorced, Separated, Widowed),
4. Residence (rural, urban),
5. Education (post-graduate degree completed, college/ university completed, higher secondary school completed, secondary school completed, less than secondary school, no formal education),
6. Occupation (unemployed, retired, home-maker, student, self-employed, non-government employee, government employee),
7. Caste (SC, ST, OBC, General),
8. Religion (Hindu, Muslim, Christian, Buddhism, Jain, Sikh, Other),
9. Material Deprivation
 - Material advantage or disadvantage of electricity,
 - Material advantage or disadvantage of flush toilet,
 - Material advantage or disadvantage of car,
 - Material advantage or disadvantage of two-wheeler,
 - Material advantage or disadvantage of television,
 - Material advantage or disadvantage of refrigerator,
 - Material advantage or disadvantage of washing machine,
 - Material advantage or disadvantage of fixed telephone,
 - Material advantage or disadvantage of cell telephone,
 - Material advantage or disadvantage of radio.

- Material advantage or disadvantage of laptop/PC.
- Material advantage or disadvantage of internet

Outcome variable will be,

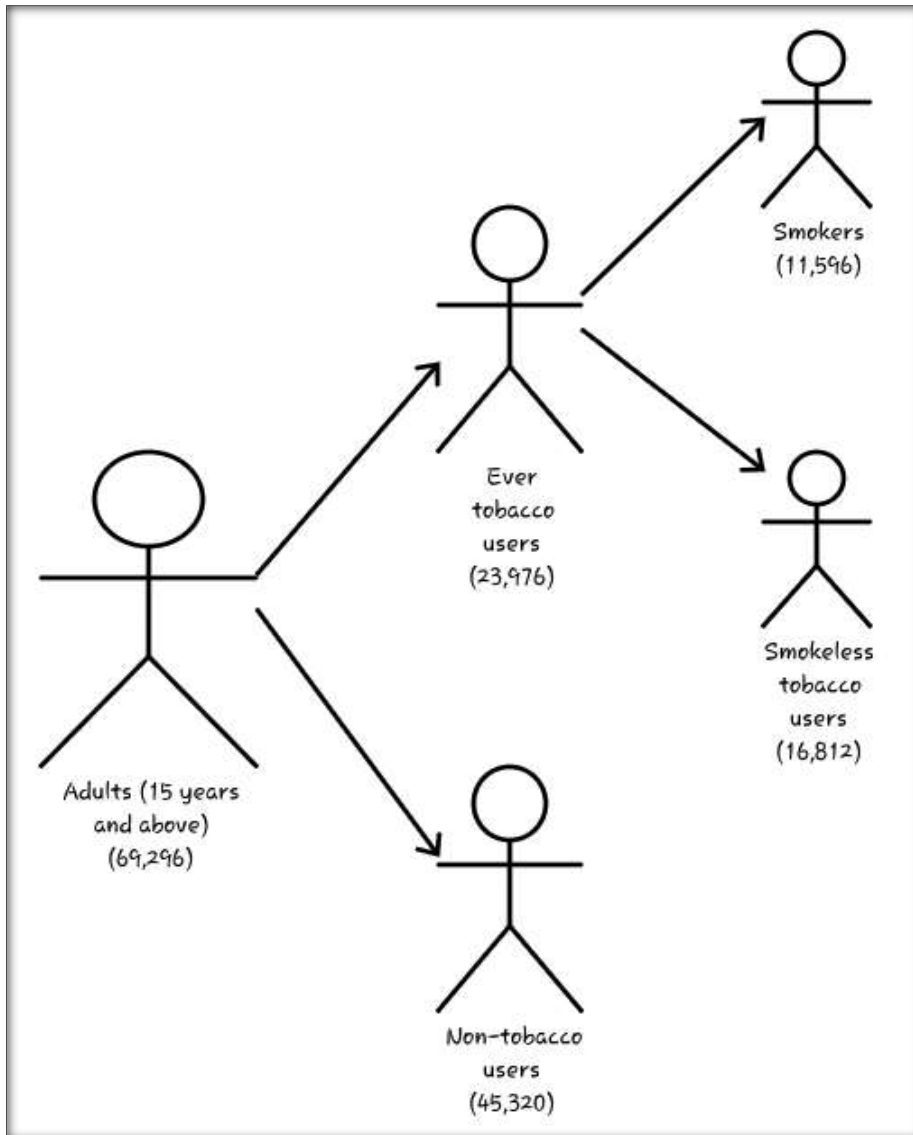
1. All current and former smokeless tobacco users aged 15 and above.

Study participants at each stage of study

Figure 4.1 represents a flow diagram of study participants at each stage of study from the GATS India survey data 2009-2010. A total of 69,296 adults aged greater than 15 years were included in the study. Out of them 23,976 were ever tobacco users (current tobacco users and former tobacco users) and 45,320 were Non-tobacco users. Out of ever tobacco users, 16,812 were smokeless tobacco users and 11,596 were smokers.

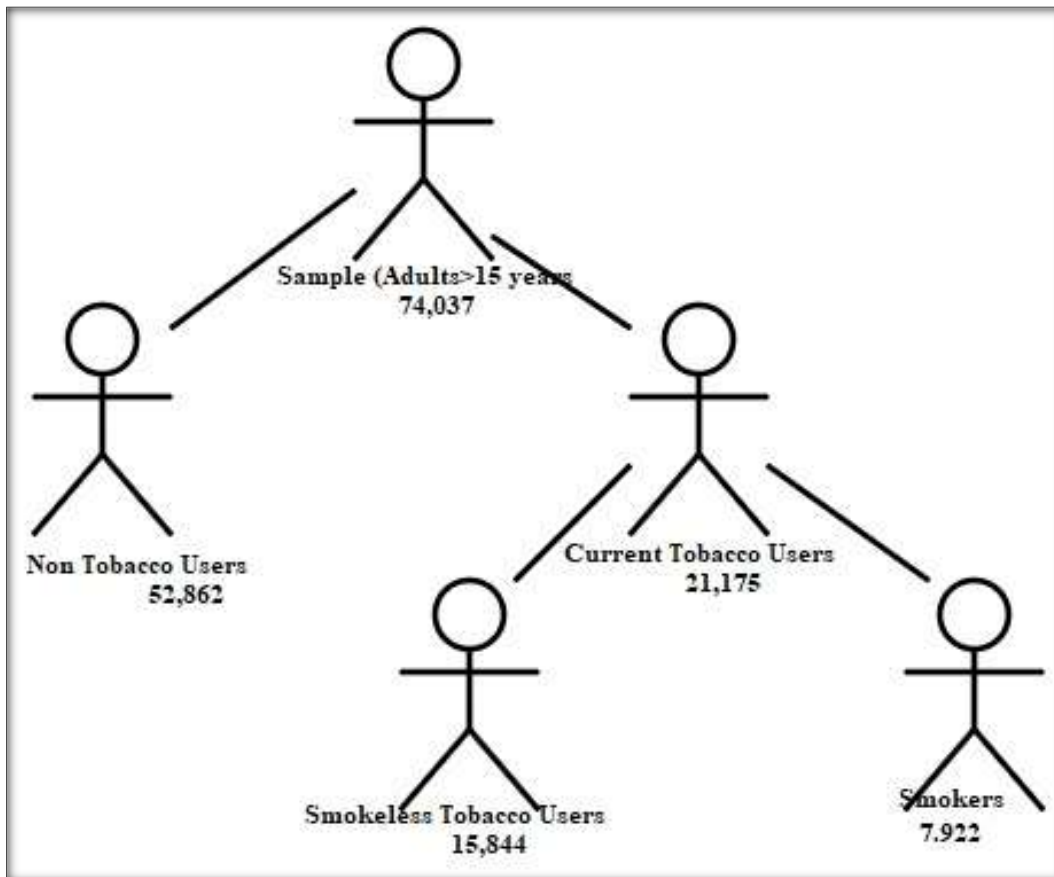
Figure 4.2 “represents a flow diagram of study participants at each stage of study from the GATS India survey data 2016-2017. A total of 74,037 adults aged greater than 15 years were included in the study. Out of them 21,175 were current tobacco users and 52,862 were Non-tobacco users. Out of current tobacco users, 15,844 were smokeless tobacco users and 7,922 were smokers” (Ruhil, 2019, p.3).

Figure 4.1 - Flow diagram to show study participants at each stage of study. GATS India survey data 2009-2010.



Source of Data - GATS India (2009-10). International Institute for Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey India (GATS India), 2009-2010.

Figure 4.2 - Flow diagram to show study participants at each stage of study. GATS India survey data 2016-2017.



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

Data analysis

The extracted data was analysed using a statistical software called “SPSS (Statistical Product and Service Solution formerly known as Statistical Package for Social Sciences) version 19 developed by IBM. After doing a descriptive analysis of all the variables included in the study, an initial bivariate logistic regression analysis was done. Then multivariable logistic regression analysis was performed, adjusting for all the confounders. Significance levels for both bivariate and multivariable logistic regression analysis were set at 0.05” (Ruhil, 2019, p. 3-4).

“Material Deprivation as a new index was computed using following variables and recoding them in the following way:

Electricity (Presence = 0, Absence =3),

Flush Toilet (Presence = 0, Absence = 2),

Television (Presence = 0, Absence =1),

Radio (Presence = 0, Absence =1),

Car (Presence = 0, Absence =1),

Moped/ Scooter/ Motorcycle (Presence = 0, Absence =1),

Refrigerator (Presence = 0, Absence =1),

Washing Machine (Presence = 0, Absence =1),

Computer/ Laptop (Presence = 0, Absence =1),

Internet Connection (Presence = 0, Absence =1),

Fixed Telephone (Presence = 0, Absence =1),

Cell Telephone (Presence = 0, Absence =1),

Air Conditioner (Presence = 0, Absence =1),

Electric Fan (Presence = 0, Absence =1)”.

During computation of material deprivation as an index, the weightage was given to various variables, which was based on “feelings of deprivation” as assessed by the author himself from the given data. The previous similar studies were based on economic value of household assets as done in wealth index. From the above mentioned variables, one can

see that highest weightage was given to electricity while recoding. This is because electricity is a basic necessity and no other appliance can function in its absence. Flush toilet was given second highest weightage. Rest of the household assets were given equal weightage. Here it is important to understand that economic value of an AC or Car or Laptop may be more than the money spent on construction of flush toilet; but the feeling of deprivation in the absence of flush toilet is more than that in the absence of AC or Car or laptop. Same is the argument with electricity. All other variables were given equal weightage because different members of family may feel deprived in the absence of different materials. For example, male members may feel deprived in the absence of a vehicle; female members may feel deprived in the absence of a washing machine; youngsters may feel deprived in the absence of internet and computers; elderly may feel deprived in the absence of Radio or Television. However the author had to choose from the given data itself.

The recoded variables were then added to compute a new variable, which had values ranging from 0 to 17. This newly computed variable was further categorised in to six levels, where Level 1 corresponds to least deprived and Level 6 corresponds to most deprived. After recoding and computation of all the independent variables, logistic regression analysis was performed. Initially a bivariate logistic regression analysis was done, and then multivariable logistic regression analysis was done for adjusting all the confounders. The level of significance for logistic regression analysis was set at 0.05.

Research Design for Objectives 2 and 3 [a) To analyse evolution, structure and characteristics of the smokeless tobacco industry in India. b) To study the market strategies of the smokeless tobacco industry.]

Sampling Design and Sampling Frame –

Sampling Design for these objectives was Purposive Sampling. “This means to purposefully select participants or sites (or documents or Visual material) that will best help the researcher understand the problem and the research question“ (Creswell, 2011, p. 178). Sampling Design also included a component of Snowball Sampling. “With this approach to sampling, the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contacts with others“ (Bryman, 2012, p. 202).

“I started by interviewing tobacco vendors. From there I collected empty pouches and noted down the name and addresses of major SLT industries. Also I got to know about 'Naya Bans wholesalers market'. I went to that market, interviewed them and got to know about history of commercialisation of smokeless tobacco in India. When I went to take interviews, I had to be very tactful to take them into my confidence. They are not ready to talk to anybody about their business. When some customers came in my presence, the wholesalers turned them back and told them to come in the evening after 4 pm. The wholesalers initially responded that they do not sell tobacco and said that they only sell Pan Masala, Kaththa, and other ingredients of Paan. In some shops products were visible inside the shops. Some admit that they sell tobacco but the business is now no more profitable. Most of them were not displaying their products. The tobacco products were kept away from general visibility deep inside the store. There were generally two rooms of the shop and the tobacco products were kept in the inner room. Only when you sit inside the shop, you could see them. Based on my field data, I researched further online and got to know about Prasad family - one of the pioneer in this business. I met their present generation, interviewed them, which was a good interview having sufficient depth. I planned further to interview some more persons. Then I interviewed some Key Informants from SLT industry. I also interviewed some Key Informants from policy perspective i.e. tobacco control professionals. These included officials, doctors, oncosurgeons, civil society groups, UN officials and officials from Ministry of Health.”

Data Analysis –

Qualitative data was analysed through grounded theory methodology (Strauss & Corbin, 1990). With this methodology, theory development began with data. In this methodology, theory development was a continuous process throughout the research as data was continuously interpreted and that interpretation was constantly compared with the new data collected. The grounded principle in this methodology is that it tries to develop and elaborate theory by comparing it constantly with the new data gathered throughout the research process. I also analysed quantitative data for these objectives, from the Annual Survey of Industries (ASI) annual reports; and from Euromonitor report. The data collected from different sources was triangulated with each other.

Research Design for Objective 4 (To study the dynamic interactions between tobacco control policies and the smokeless tobacco industry.)

Sampling Design and Sampling Frame –

As stated previously for objectives 2 and 3.(i.e. Smokeless Tobacco Companies)

In addition to that sampling frame also included Key Informants from National Tobacco Control Programme, Ministry of Health and Family Welfare; WHO FCTC smokeless tobacco hub Noida, Public Health Foundation of India (PHFI), International Union against Tuberculosis and Lung Diseases (The Union), Voluntary Health Association of India (VHAI), TATA Memorial Hospital Mumbai, Healis Shekhsaria Institute Mumbai.

I also participated in 4th National Conference on Tobacco or Health (4th NCTOH) held during 8-10 February 2019 at Tata Memorial Hospital Mumbai. Here I attended presentations by various tobacco control professionals and thus got in touch with latest developments in tobacco control.

Data Analysis Plan for Objective 4 –

Same as stated previously for objectives 2 and 3.

Triangulation of Data –

The data collected at structural level (by study of smokeless tobacco industry and smokeless tobacco control policies) was triangulated with data at individual level (i.e. prevalence of tobacco use from GATS survey and socio-economic & demographic characteristics of tobacco users). Thus the study was an analysis of social determinants of smokeless tobacco use at multiple levels and how variables at different levels affected the prevalence of smokeless tobacco use over the time-period.

Table 4.1 - Mapping of Various stakeholders in Tobacco Control in India				
Type of Organisation	Name of Organisation	Key Informant/s	E-mails	Additional Information/ If Any
International Organisations				
World Health Organisation	World Health Organisation – Regional office for South-East Asia	Department of NCD and Environmental Health (NDE)	Thaksaphon Thamarangsi	thamarangsit@who.int
		Tobacco Free Initiative (TFI)	Jagdish Kaur	kaurj@who.int
International NGOs	International Union against Tuberculosis and Lung Disease (The Union)	Rana J Singh (Technical Advisor – Tobacco Control)		rsingh@theunion.org
		Pranay Lal (Technical Advisor – Tobacco Control)		plal@theunion.org
	World Lung Foundation (Green Park extension, N Delhi)	Nandita Murukutla (Director, Research and Evaluation)		nmurukutla@worldlungfoundation.org
	Health Bridge Foundation of Canada (Mumbai)	Shoba John (Special Advisor)		shobajohn@gmail.com
	HRIDAY – SHAN (Safdurjung development area, N Delhi)	Amit Yadav (Manager – Legal)		amit@hriday_shan.org

National Organisations				
Government Institutions	Indian Council of Medical Research – National Institute of Cancer Prevention and Research (ICMR-NICPR) at Noida	Ravi Mehrotra (Director)	ravi.mehrotra@gov.in	
	Ministry of Health and Family Welfare, National Tobacco Control Programme at Nirman Bhavan	Amal Pusp (Director)	amal.pusp@gmail.com	
Autonomous Institutions	Public Health Foundation of India (PHFI)	K. Srinath Reddy (President)	kstinath.reddy@phfi.org	
		Monika Arora (Head – Health Promotion and Tobacco Control)	monika.arora@phfi.org	
	Voluntary Health Association of India (VHAI)	Bhavna Mukhopadhyay	bhavna.alok@yahoo.co.in healthpromotion@vhai.org	
Regional NGOs	Epidemiological Research Centre, Chennai	V. Gajalakshmi Vendhan (Director)	gajaerc@gmail.com	
	Healis – Sekhsaria Institute for Public Health, Navi Mumbai	Prakash C Gupta (Director)	guptapc@healis.org	
	National Organisation for Tobacco Eradication (NOTE), Goa	Shekhar Salkar	salkar.shekhar@gmail.com	
Medical Institutes				
	Tata Memorial Hospital, Mumbai	Pankaj Chaturvedi (Head and Neck Surgery)	chaturvedi.pankaj@gmail.com	
		Surendra Shastri (Head, WHO collaborating centre for cancer prevention, screening and early detection)	surendrashastri@gmail.com	

	Post Graduate Institute of Medical Education and Research (Chandigarh)	J S Thakur (Professor – School of Public Health)	jsthakur64@gmail.com	
	National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore	Pratima Murthy (Professor – Deptt of Psychiatry & Chief De-addiction services)	pratimamurthy@gmail.com	
	V P Chest Institute, University of Delhi	Raj Kumar (Head, University Deptt. Of Pulmonary Medicine)	rajkumarvpci@gmail.com	
	AIIMS, Dr B R Ambedkar Institute – Rotary Cancer Hospital	G K Rath (Chief, Dr B R Ambedkar Institute – Rotary Cancer Hospital, AIIMS)	gkrath@rediffmail.com	
	AIIMS, Department of Dental Surgery	Vijay Mathur	vijaymathur7@gmail.com	
	AIIMS, Department of Cardiology	Ambuj Roy	drambujroy@gmail.com	
	Lady Harding Medical College	Pravesh Mehra (Professor and Head of Oral & Maxillofacial Surgery Department)	mehramaxfac@gmail.com	
	Maulana Azad Institute of Dental Sciences	Vikrant Mohanty (Associate Professor, Department of Public Health Dentistry)	vikrantmohanty@gmail.com	
	Government Dental College, Nagpur	Vinay Hazarey	vinay.hazarey@gmail.com	
Hospitals				
	Soni Group of Hospitals and SEAROC Cancer Centre, Jaipur	Rakesh Gupta (President and Head)	rakesh.gupta.acs@gmail.com	
	Monilek Hospital and Research Centre	Rajeev Gupta	rajeevg@satyam.net.in	
	Malabar Institute of Medical Sciences, Kerala	Salman Salahuddin	drsalmans@gmail.com	
	Amrita Institute of Medical Sciences, Kerala	P Gangadharan	gangadharanp@aims.amrita.edu	

Individual Activists				
	Behavioural Scientist and communication expert	Mira B Aghi, (Green Park, New Delhi)	mirabaghi@gmail.com	
	Consultant in Tobacco Taxation	Rijo M John, Kerala	rmjohn@gmail.com	

References of Chapter 4

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Chapter 5 –

Demographic and socio-economic profile of smokeless tobacco users

Demographic and socio-economic profile of smokeless tobacco users using GATS (Two rounds of GATS – 2009-10 and 2016-17) India data.

First of all it becomes important to know who the tobacco users are. This chapter presents the demographic and socio-economic profile of smokeless tobacco users. There is a clear cut pattern among smokeless tobacco users who are not randomly distributed in the population. This chapter will show that there are social and economic situations where individuals are more likely to use smokeless tobacco as compared to their counterparts. The knowledge of such patterns is also important from policy perspective because if we will keep counselling tobacco users on individual basis, new users will keep on adding to this population; as we have not done anything to address the structural socio-economic forces in the society that altered the individual behaviours in the first place.

The interactions of health behaviours with its socio-economic and cultural external environment, were observed as early as 1800s. Cassandra Okechukwu and colleagues have mentioned that, “Villerme noted that social factors, such as the standards of living and duration of work, constrained the behaviours of people in different trade, such that different professions were associated with particular behavioural tendencies and even levels of hygiene” (Okechukwu, Davison & Emmons, 2014, p. 365-366).

In this chapter, a new index called “material deprivation index” was created and was studied in relation to smokeless tobacco use habit, along with other socio-economic variables. The concept of deprivation is an old concept. Townsend in 1979 used deprivation as an index of measurement of poverty among European populations (Eroglu, 2007). The “deprivation index” as used by Townsend, was an extension of the concept of poverty and was used to measure the level of deprivation of living standards. Townsend was followed by several other researchers who used the concept of deprivation in different manners (Eroglu, 2007). Amartya Sen also extended this concept in 1982, where he argued that ‘feelings of deprivation’ should also be taken into account while deciding levels of living. The concept of material deprivation was also studied in relation to “Health” by epidemiologist “Michael Marmot” in his work “Social determinants of Health inequalities” (Marmot, 2005). Cigarette smoking as a risk factor among UK based populations, was studied by Martin J. Jarvis and Jane Wardle in 2006; in relation to material and cultural disadvantage (Jarvis & Wardle, 2011).

In India, tobacco use has been studied in relation to socio-economic disadvantage by several researchers. But these research were limited to using “wealth-index” as a proxy indicator for household ownership of assets. This chapter uses ‘material deprivation’ as an independent variable in relation to smokeless tobacco use as a dependent variable.

The chapter also studies other independent variables (age, gender, marital status, residence (rural/urban), occupation, education, caste and religion) in relation to smokeless tobacco use as a dependent variable. The objective of this chapter is to study the demographic and socio-economic profile of smokeless tobacco users and to determine how these demographic and socio-economic conditions of individuals influence their likelihood of using smokeless tobacco.

Let us first discuss age-group as a determinant of being a SLT user. Age-group of 45-64 had highest odds or likelihood of being a SLT user (Refer Table 5.1), followed by age-group of 25-44 and then age-group of 65+ as compared to the age-group of 15-24. This pattern could be explained in many ways. One reason may be that in the age-group of 45-64, individuals get more independent with fewer restrictions and are freer to use tobacco. Another explanation is that this life-period may be more stressful with lots of responsibilities like career building of their children etc. Thus psychosocial pathways may lead stress to SLT use behaviour.

Regarding gender, male have more odds of using smokeless tobacco as compared to females. In case of GATS 2, being a male had 2.19 times higher odds of using SLT as compared to females. Gender and smokeless tobacco use in India has been discussed as a separate section later in this chapter.

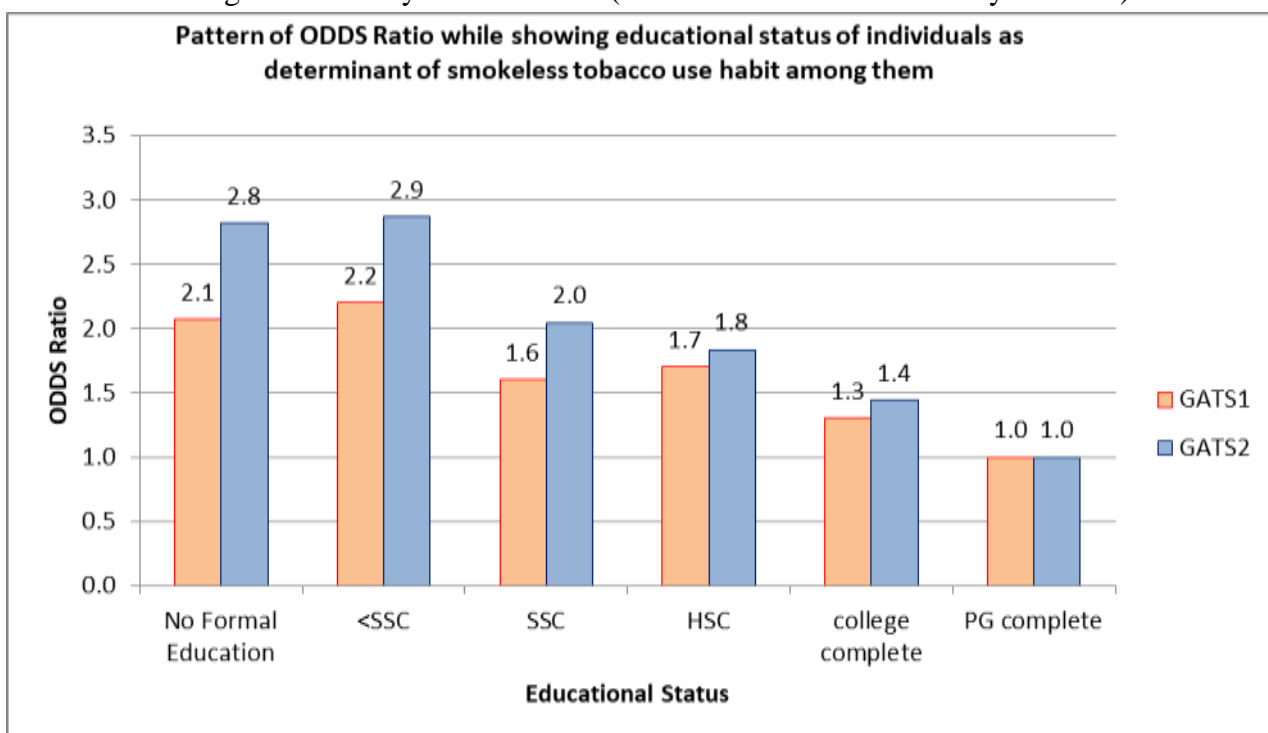
Regarding Urban versus Rural residence, the analysis showed that being residing in rural areas had higher odds of using smokeless tobacco as compared to urban areas. This might be because people residing in rural areas are deprived, poor and uneducated as compared to their urban counterparts. The Rangarajan committee has also estimated that 30.9 percent of the rural population is poor as compared to 26.4 percent of poor population in urban areas. Regarding Literacy rate, National Sample Survey 71st round, 2014, has shown that literacy rate in rural India was 71 percent as compared to 86 percent in urban India. The point here is that urban areas are not homogenous and it needs further research to get

clarity on whether these results differ for urban slums, urban middle class and urban high class.

The analysis regarding marital status of individuals showed that, being widowed and divorced had highest odds or likelihood of using smokeless tobacco followed by being separated and then being married. The least odds of using smokeless tobacco were noted for being single or unmarried.

The analysis regarding educational status of individuals showed a clear-cut pattern (Refer Figure 5.1). Here higher was the educational status of individuals, lower were the odds of using smokeless tobacco by them. In other words, less educated individuals were more likely to use tobacco as compared to highly educated people.

Figure 5.1 – Graph showing Pattern of ODDS Ratio while showing educational status of individuals as determinant of Smokeless tobacco use habit among them (Based on Multivariable Regression Analysis of GATS 2 (Global Adult Tobacco Survey 2016-17)).



Regarding Occupation of individuals as a determinant of SLT use, it was found that being a homemaker as well as being a student had fewer odds of being a SLT user, as compared to being unemployed; which is evident by analysis of both the rounds of GATS data sets. Additionally GATS 2 data set also gives information about “Daily Wage Labourer” as an occupational group; where the analysis has shown that being a daily wage labourer had higher odds of being a SLT user as compared to even being unemployed. “Such results may be due to ease of living in particular occupations as compared to hardships in other occupations. It surprisingly shows that stress or hardships in being a daily wage labourer may be even greater than being unemployed” (Ruhil 2019, p. 4).

“Religion and Caste were not taken as variables during GATS 1 (2009-10) survey; but these have been included during GATS 2 (2016-17) survey. Regarding religion as a determinant of SLT use, statistical analysis has shown that SLT use was more among Muslims and Christians as compared to Hindus. SLT use was less among Buddhists and Sikhs⁴ as compared to Hindus.

Regarding caste of individuals as a determinant of SLT use, the likelihood of using smokeless tobacco was highest among Scheduled tribes followed by Scheduled castes and then OBC, when compared to General caste. The socio-economic status as well as hardships associated with lives of Scheduled tribes and castes, may be an explanation for higher prevalence of tobacco use among them” (Ruhil 2019, p. 4).

As explained earlier, material deprivation index was computed and its relation with SLT use was studied. Some very interesting patterns have emerged from the data in case of both data sets (GATS 1 and GATS 2). “It was found that higher was the level of material deprivation, higher was the likelihood of using SLT by them. These trends are plotted in the form of a graph and are shown in Figure 5.2. Here odds ratios are higher in case of GATS 2 data set. As an example, there are 10.21 times higher odds of an individual with Level 6 of material deprivation, to use SLT, as compared to an individual with Level 1 of material deprivation” (Ruhil 2019, p. 7).

⁴ Guru Gobind Singh placed a ban on tobacco on 13 April 1699. The same day the Guru preached his fellow Sikhs to take an oath at his ‘Amrit Ceremony’ (Baptism) that they will abstain from tobacco which is the first baptismal rite. In 1931, the ‘Akal Takhat’ (Supreme Sikh Authority) announced the Sikh code of conduct (The Reht Maryada), thus making the Amrit Pledge more stringent. This code’s section four, chapter X, article XVI (J) describes the first tobacco control edict that lists smoking and drug abuse as part of the four misdeeds or ‘Kurahat’ (Reddy and Gupta 2004).

Figure 5.2 – Graph showing Pattern of ODDS Ratio while showing material deprivation among individuals as determinant of smokeless tobacco use habit among them. (Based on Multivariable Regression Analysis of GATS 2 (Global Adult Tobacco Survey 2016-17, where a new index called Material Deprivation was computed).

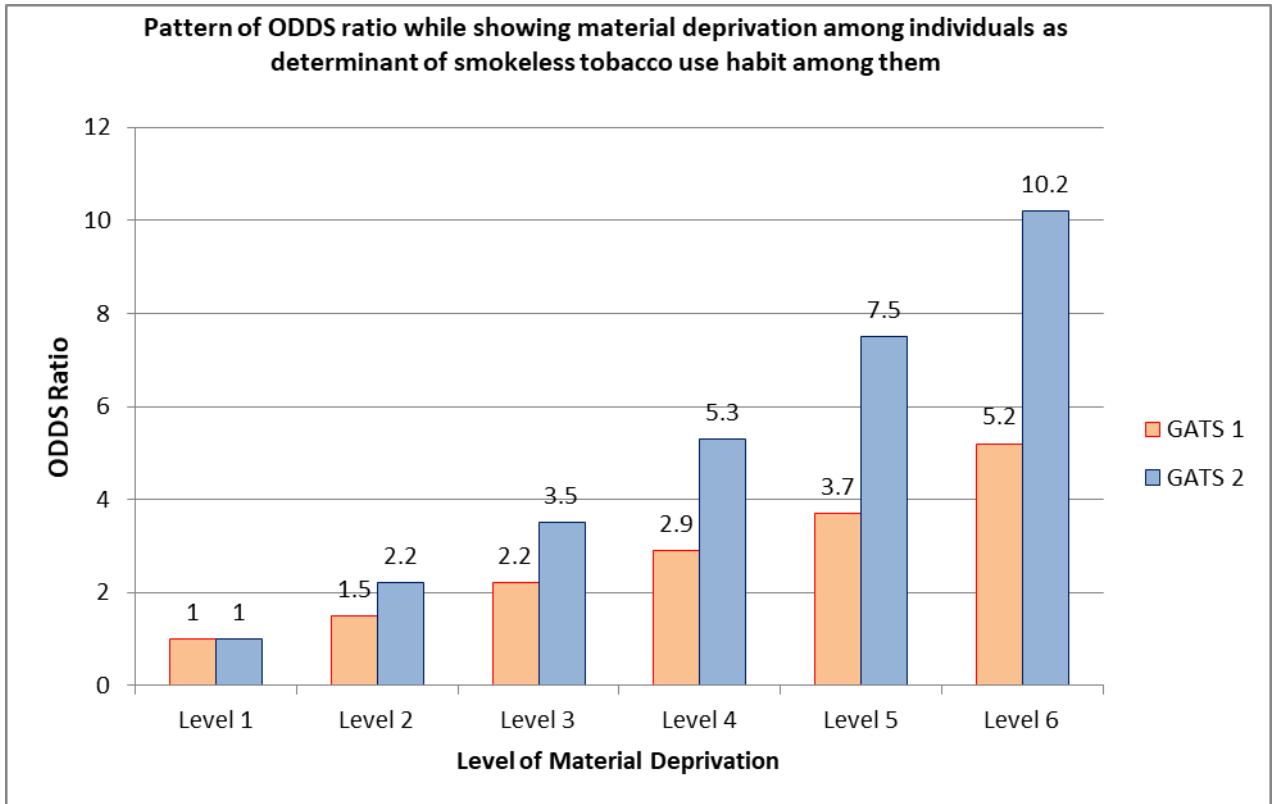


Table 5.1 - Socio-demographic characteristics of individuals as determinants of using **smokeless** forms (SLT) of tobacco among them: Global Adult Tobacco Survey (GATS) India (Two Rounds - 2016-2017 and 2009-10)

Socio-demographic Characteristics	GATS 2 (2016-17)						GATS 1 (2009-10)					
	Sample		SLT users		Multivariable Logistic Regression Analysis		Sample		SLT users		Multivariable Logistic Regression Analysis	
	N 74037	% (100%)	n 15235	% (20.6%)	OR (95% CI)	P Value	N 69,296	% (100%)	N 16,812	% (24.3%)	OR (95% CI)	P Value
Age (In Years)												
15-24	11927	16.9%	1266	10.5%	1	Ref	13463	19.4%	2029	15.1%	1	Ref
25-44	34224	48.5%	7706	22.1%	1.684 (1.546- 1.833)	<0.001	35020	50.5%	9106	26%	1.666 (1.565- 1.772)	<0.001
45-64	18536	26.3%	4432	23.4%	1.739 (1.586- 1.907)	<0.001	16123	23.3%	4342	26.9%	1.677 (1.565- 1.797)	<0.001
65+	5839	8.3%	1438	23.9%	1.618 (1.445- 1.812)	<0.001	4690	6.8%	1335	28.5%	1.648 (1.502- 1.809)	<0.001
Gender												
Female	38225	54.2%	5584	13.9%	1	Ref	35529	51.3%	6560	18.5%	1	Ref
Male	32301	45.8%	9651	28.6%	2.19 (2.07- 2.31)	<0.001	33767	48.7%	10252	30.4%	1.555 (1.478- 1.636)	<0.001
Residence												
Rural	45327	64.3%	11617	24.4%	1	Ref	41825	60.4%	11882	28.4%	1	Ref
Urban	25199	35.7%	3618	13.7%	0.91 (0.87-	<0.001	27471	39.6%	4930	17.9%	0.874 (0.837-	<0.001

					0.96)							0.912)	
Marital Status													
Single	11303	16%	1423	11.9%	1	Ref	Marital Status Variable was not included in GATS 1.						
Married	54378	77.1%	12539	22%	1.162 (1.068- 1.264)	<0.001							
Separated	306	0.4%	81	24.8%	1.176 (0.879- 1.574)	0.275							
Divorced	300	0.4%	79	25.6%	1.611 (1.207- 2.150)	0.001							
Widowed	4239	6%	1111	24.9%	1.727 (1.533- 1.947)	<0.001							
Education													
Post-Graduate Degree Completed	2482	3.5%	139	5.3%	1	Ref	2139	3.1%	205	9.6%	1	Ref	
College/ University Completed	5709	8.1%	529	8.7%	1.440 (1.173- 1.767)	<0.001	5529	8.0%	683	12.4%	1.261 (1.065- 1.493)	0.007	
Higher Secondary School Completed	7583	10.8%	903	11.3%	1.835 (1.505- 2.237)	<0.001	6195	9.0%	993	16%	1.688 (1.429- 1.994)	<0.001	
Secondary School Completed	9889	14%	1535	14.9%	2.045 (1.684- 2.484)	<0.001	8949	12.9%	1535	17.2%	1.565 (1.330- 1.841)	<0.001	
Less than Secondary	27219	38.6%	7230	25.4%	2.869 (2.372-	<0.001	27539	39.8%	7656	27.8%	2.203 (1.882-	<0.001	

School					3.470)						2.579)	
No Formal Education	17644	25%	4889	26.5%	2.819 (2.321-3.424)	<0.001	18805	27.2%	5690	30.3%	2.070 (1.761-2.434)	<0.001
Occupation												
Unemployed	2879	4.1%	802	26.4%	1	Ref	2725	3.9%	975	35.8%	1	Ref
Retired	1591	2.3%	315	18.8%	0.946 (0.805-1.111)	0.499	1207	1.7%	251	20.8%	0.667 (0.563-0.790)	<0.001
Home-maker	24471	34.7%	3064	11.9%	0.720 (0.649-0.800)	<0.001	23858	34.5%	4004	16.8%	0.549 (0.499-0.605)	<0.001
Student	5930	8.4%	304	5%	0.385 (0.327-0.455)	<0.001	5819	8.4%	498	8.6%	0.398 (0.348-0.455)	<0.001
Self-employed	13357	18.9%	4204	30.1%	1.240 (1.124-1.369)	<0.001	19629	28.4%	6466	32.9%	0.881 (0.806-0.963)	0.005
Daily Wage Labourer	13179	18.7%	4812	35%	1.246 (1.129-1.376)	<0.001	NA	NA	NA	NA	NA	NA
Non-Govt. Employee	5911	8.4%	1185	18.9%	1.154 (1.027-1.297)	0.016	11926	17.2%	3736	31.3%	0.937 (0.854-1.029)	0.172
Govt. Employee	3208	4.5%	547	16.3%	1.095 (0.953-1.258)	0.200	4002	5.8%	845	21.1%	0.997 (0.885-1.123)	0.962
Religion												
Hindu	51573	73.1%	10772	19.9%	1	Ref	Religion Variable was not included in GATS 1.					
Muslim	8325	11.8%	1773	20.2%	1.082 (1.014-	0.018						

					1.155)		Caste Variable was NOT included in GATS 1.					
Christian	6747	9.6%	1987	27.9%	1.150 (1.065- 1.242)	<0.001						
Buddhism	1226	1,7%	338	25.9%	0.768 (0.665- 0.887)	<0.001						
Jain	116	0.2%	9	7.5%	0.636 (0.303- 1.333)	0.230						
Sikh	1981	2.8%	100	4.8%	0.375 (0.304- 0.464)	<0.001						
other	558	0.8%	241	40.4%	1.757 (1.451- 2.127)	<0.001						
Caste												
General	20378	28.9%	3042	14.3%	1	Ref						
Scheduled Caste (SC)	12362	17.5%	2860	22.2%	1.23 (1.15- 1.32)	<0.001						
Scheduled Tribe (ST)	11589	16.4%	4140	34.1%	2.05 (1.91- 2.20)	<0.001						
Other Backward Class (OBC)	26197	37.1%	5053	18.5%	1.05 (0.995- 1.11)	0.076						
Material Deprivation												
Level 1	2687	3.8%	76	2.7%	1	Ref	9013	13.1%	589	8.4%	1	Ref
Level 2	7997	11.3%	602	7.2%	2.23 (1.73-	<0.001	11845	17.2%	1467	13.5%	1.504 (1.356-	<0.001

					2.87)						1.669)	
Level 3	20357	28.9%	2901	13.7%	3.46 (2.71- 4.42)	<0.001	15792	23%	2838	19.9%	2.169 (1.963- 2.398)	<0.001
Level 4	24099	34.2%	5921	23.7%	5.26 (4.12- 6.73)	<0.001	14222	20.7%	4194	26.4%	2.939 (2.657- 3.250)	<0.001
Level 5	11309	16.0%	3817	32.7%	7.47 (5.82- 9.58)	<0.001	10873	15.8%	3954	33.2%	3.738 (3.366- 4.150)	<0.001
Level 6	4077	5.8%	1746	41.4%	10.21 (7.91- 13.19)	<0.001	6969	10.1%	3705	40.8%	5.175 (4.646- 5.765)	<0.001

Gender and Smokeless Tobacco use in India –

This section discusses tobacco use in terms of Gender issues. Gender discussions in this section are not limited to women only, but also include men, as the pressure of Gender norms is more on men when it comes to tobacco use. Women also suffer when men of their family use tobacco. First women and children inhale second hand smoke and thus endanger their health involuntarily. Second there is an opportunity cost associated with tobacco use because the money spend on tobacco could be better utilised for family needs. Third, when men fall ill due to tobacco related illness, it becomes a catastrophe for the whole family. ‘Voice of Tobacco Victims’⁵ tells repeatedly the sufferings of their families especially when it comes to the treatment of tobacco related cancers. “Mrs. Sumitra Pednekar, wife of Maharashtra's former home and labour minister Satish Pednekar, who died of oral cancer”, says “My husband's illness happened because of his addiction to mawa, a mix of chewing tobacco and pan masala. My daughters and I are still struggling to come to terms with the scars left by his extended illness and tragic demise”. [<https://vovindia.org/>] “Mr. Vijay Kumar Prasad, 49 years old participated actively in VoTV sessions” and said “God had given me good face, health and wealth. which I destroyed myself on consuming tobacco. Please quit tobacco in any form if you love your family” [<https://vovindia.org/>].

Here it becomes imperative to first look at prevalence of tobacco use among men and women. If we look at trends of tobacco use over a period of two decades, i.e. from 1995-96 to 2016-17; there is a peak during 2005-06; and presently there is a steady declining limb of tobacco epidemic (Ruhil, 2018). Figure 5.3 and Figure 5.4 shows these trends with respect to smoking and smokeless tobacco use habit (Refer Figure 5.3 and Figure 5.4).

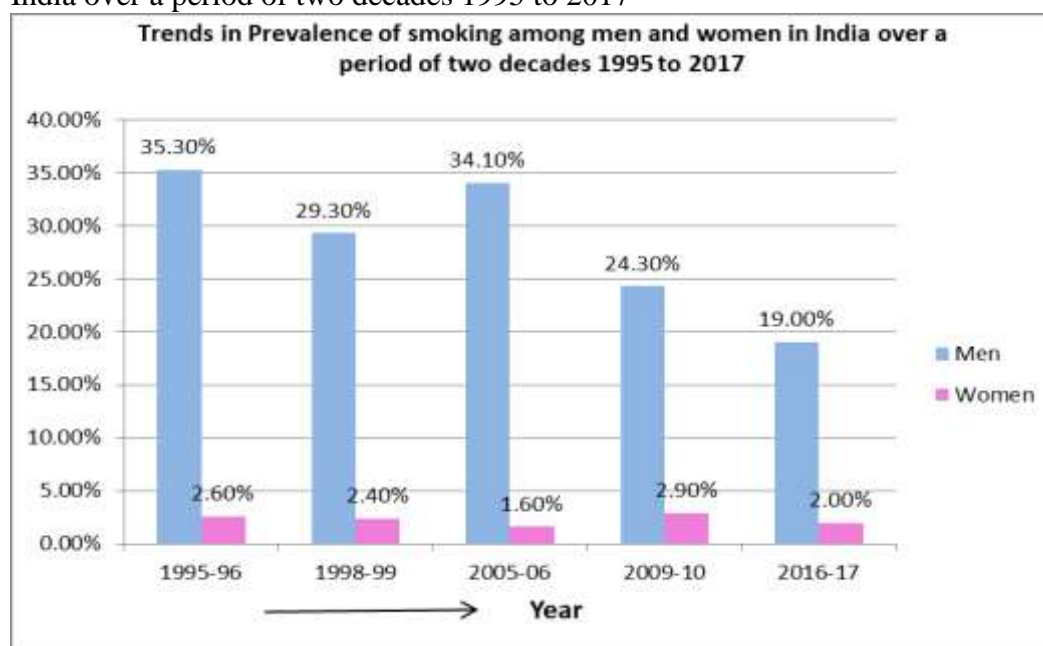
It is evident from Figure 5.3 that smoking among men was constantly declining since 1995-96 with an exceptional peak shown in NFHS-3 (2005-06). In 2016-17 about 19 percent men were smoking. On the other hand smoking among women was rather low and constant over two decades. It was around 1.6 percent to 2.9 percent throughout this period. The reason being social norms associated with smoking in India. The findings from TCP (Tobacco Control Project) India Wave 1 Survey showed that cultural norms in India

⁵ ‘Voice of Tobacco Victims’ is a national NGO run by renowned onco-surgeons of the country. It organises programmes where cancer survivors come on stage and tell their stories. They tell how tobacco use habit resulted in cancer and then how it ruined their families. [<https://vovindia.org/>]

prohibit smoking by women, whereas smokeless tobacco use is widely accepted among both sexes in India (Sansone et al., 2013). It is widely held in patriarchal society that only bad women smoke. On the other hand, smokeless tobacco (SLT) use among women is rather acceptable. Figure 2 shows that prevalence of SLT use among women was raising since 1995-96 to 2009-10. In 2009-10 about 18.4 percent women were using SLT. Comparing this to 2.9 percent women smoking in the same year, the social acceptability of SLT use among women becomes evident. The research has also shown that many working class women use SLT to suppress their hunger (Gupta et al., 2017). Gender Gap has always been much more in smoking prevalence in India as compared to SLT prevalence.

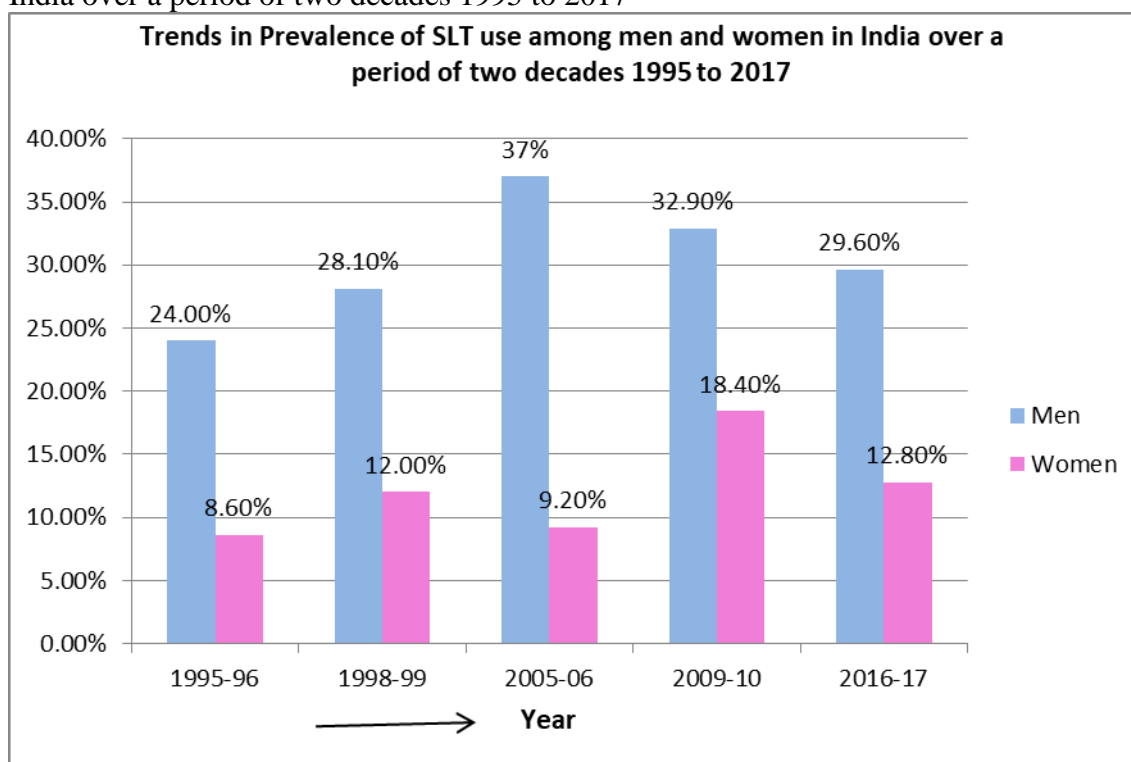
From 2005-06 onwards the SLT use among men was also higher than smoking among them. NFHS 3 survey (2005-06) showed that 37 percent of men were using SLT in that year as compared to 34 percent men using smoking forms of tobacco in that year. In 2009-10 SLT use prevalence among men declined to 32.9 percent while it increased among women. In 2016-17 SLT use prevalence among men further declined to 29.6 percent and it declined among women too. As per the latest survey, about 12.8 percent women used SLT in 2016-17.

Figure 5.3 – Graph showing Trends in Prevalence of smoking among men and women in India over a period of two decades 1995 to 2017



Source of Data - 1995-96 (NSSO 52nd Round), 1998-99 (NFHS 2), 2005-06 (NFHS 3), 2009-10 (GATS 1), 2016-17 (GATS 2).

Figure 5.4 – Graph showing Trends in Prevalence of SLT use among men and women in India over a period of two decades 1995 to 2017



Source of Data - 1995-96 (NSSO 52nd Round), 1998-99 (NFHS 2), 2004-05 (NFHS 3), 2009-10 (GATS 1), 2016-17 (GATS 2).

Thus SLT use among women is a major concern along with other concerns associated with Gender and Tobacco use in India; which are discussed in this section. This section has also analysed GATS 2 survey to identify various socio-demographic determinants of tobacco use among men and women separately, which is evident from the Table 5.2.

Regarding marital status as a determinant of tobacco use habit among men and women, some very interesting results have come up. Among male individuals, being widowed are most likely to use smokeless tobacco followed by being married, when compared to being single. In other words being single are least likely to use tobacco as compared to any of the marital status. But among women, results related to being married, are not significant. Rather being separated females are most likely to use SLT, followed by being divorced and then being widowed (Refer Table 5.2). Thus the socio-economic hardships and psychological distress related to these marital statuses (separated, widowed, divorced) especially among women; is a vast area of study in order to understand such results.

Regarding occupation of men and women as determinant of using smokeless tobacco shows some significant results regarding daily wage labourer's use. Being a daily wage labourer has higher odds of using tobacco by men even if compared with unemployed men. This may be related to hardships and stress associated with being a daily wage labourer. Among women also, being a daily wage labourer had higher odds of using SLT when compared to even unemployed women. Some other research has also shown that working class women use SLT pouches to suppress their hunger and continue with their work (Gupta et al., 2017). Further being a home-maker and being a student have lower odds of using SLT by women, when compared to being unemployed. Among men also being a student had lower odds of using tobacco by them when compared to unemployed men.

Regarding religion of men and women, very interesting findings have come when comparisons were made to Hindus especially related to women. Among SLT use by men results were not significant except that being Sikh male had lower odds of using SLT as compared to Hindu male (Refer Table 5.2). Table 5.2 further shows that, SLT use by women was more likely in Christians and was less likely among Sikh women, when comparisons were made to Hindu women. Among Sikhs out of 1188 women, only 1 woman was found to use SLT. Thus Sikh religion may have stricter restrictions related to tobacco use by women. This needs further interrogation. Christian women were found more likely to use SLT when compared to Hindu women.

Table 5.2 – Gender-wise Socio-demographic characteristics of men and women as determinants of using **smokeless** forms (SLT) of tobacco among them: Global Adult Tobacco Survey (GATS) India 2016-2017.

Socio-demographic Characteristics	MALE						FEMALE					
	Sample		SLT users		Multivariable Logistic Regression Analysis		Sample		SLT users		Multivariable Logistic Regression Analysis	
	N 33772	% (100%)	n 9233	% 28.6%	OR (95% CI)	P Value	N	% (100%)	N	%	OR (95% CI)	P Value
Age (In Years)												
15-24	5348	16.6%	880	16.3%	1	Ref	6579	17.2%	386	5.8%	1	Ref
25-44	15475	47.9%	5148	32.9%	1.40 (1.25- 1.57)	<0.001	18749	49%	2558	13.3%	2.02 (1.76- 2.33)	<0.001
45-64	8613	26.7%	2571	29.6%	1.14 (1.01- 1.29)	0.035	9923	26%	1861	18.2%	2.93 (2.52- 3.40)	<0.001
65+	2865	8.9%	775	26.7%	0.95 (0.82- 1.10)	0.482	2974	7.8%	663	21.3%	3.21 (2.68- 3.83)	<0.001
Residence												
Rural	21049	65.2%	7324	33.4%	1	Ref	24278	63.5%	4293	16.8%	1	Ref
Urban	11252	34.8%	2327	19.7%	0.87 (0.81- 0.92)	<0.001	13947	36.5%	1291	8.8%	0.998 (0.922- 1.081)	0.970
Marital Status												
Single	6600	20.4%	1119	15.9%	1	Ref	4703	12.3%	304	6.2%	1	Ref
Married	24984	77.3%	8271	31.8%	1.35 (1.22-	<0.001	29394	76.9%	4268	13.8%	1.05 (0.89-	0.574

					1.49)						1.25)	
Separated	120	0.4%	26	20.2%	0.68 (0.42- 1.10)	0.114	186	0.5%	55	27.8%	1.73 (1.18 – 2.53)	0.005
Divorced	67	0.2%	24	33.8%	1.43 (0.83- 2.47)	0.191	233	0.6%	55	23.1%	1.45 (1.01- 2.08)	0.044
Widowed	530	1.6%	210	38%	1.81 (1.46- 2.25)	<0.001	3709	9.7%	901	23.1%	1.31 (1.08- 1.59)	0.006
Education												
Post-Graduate Degree Completed	1199	3.7%	109	8.5%	1	Ref	1283	3.4%	30	2.2%	1	Ref
College/ University Completed	3131	9.7%	433	12.9%	1.48 (1.18- 1.87)	0.001	2578	6.7%	96	3.5%	1.30 (0.84- 2.03)	0.240
Higher Secondary School Completed	4055	12.6%	728	17.2%	1.84 (1.47- 2.31)	<0.001	3528	9.2%	175	4.7%	1.78 (1.17- 2.71)	0.007
Secondary School Completed	5255	16.3%	1226	22.4%	2.08 (1.66- 2.60)	<0.001	4634	12.1%	309	6.4%	2.00 (1.33- 3.01)	0.001
Less than Secondary School	13498	41.8%	5051	35.9%	2.78 (2.23- 3.46)	<0.001	13721	35.9%	2179	15.1%	3.43 (2.31- 5.11)	<0.001
No Formal Education	5163	16%	2099	39.3%	2.46 (1.96- 3.09)	<0.001	12481	32.7%	2790	21.2%	3.65 (2.44- 5.45)	<0.001
Occupation												
Unemployed	1768	5.5%	529	28.5%	1	Ref	1111	2.9%	273	23.1%	1	Ref
Retired	1241	3.8%	247	18.9%	1.02 (0.84- 1.23)	0.841	350	0.9%	68	18.3%	1.05 (0.75- 1.46)	0.775

Home-maker	372	1.2%	101	25.3%	0.80 (0.61-1.04)	0.094	24099	63%	2963	11.7%	0.73 (0.62-0.86)	<0.001
Student	3113	9.6%	215	6.6%	0.33 (0.27-0.40)	<0.001	2817	7.4%	89	3.1%	0.44 (0.33-0.60)	<0.001
Self-employed	10401	32.2%	3489	32.2%	1.15 (1.02-1.30)	0.019	2956	7.7%	715	22.9%	1.20 (1.00-1.44)	0.047
Daily Wage Labourer	8750	27.1%	3606	39.5%	1.17 (1.03-1.31)	0.013	4429	11.6%	1206	26.1%	1.24 (1.05-1.48)	0.014
Non-Govt. Employee	4473	13.8%	1040	22%	1.03 (0.89-1.18)	0.717	1438	3.8%	145	9.5%	0.98 (0.76-1.25)	0.852
Govt. Employee	2183	6.8%	423	18.6%	1.07 (0.91-1.26)	0.424	1025	2.7%	124	11.5%	1.19 (0.91-1.54)	0.212
Religion												
Hindu	23672	73.3%	7148	29%	1	Ref	27901	73%	3624	12.4%	1	Ref
Muslim	3742	11.6%	1127	28.7%	0.93 (0.86-1.02)	0.115	4583	12%	646	13.3%	1.37 (1.23-1.51)	<0.001
Christian	3180	9.8%	926	27.6%	0.76 (0.68-0.84)	<0.001	3567	9.3%	1061	28.2%	1.84 (1.65-2.05)	<0.001
Buddhism	588	1.8%	207	33.1%	0.75 (0.62-0.91)	0.004	638	1.7%	131	19.4%	0.82 (0.66-1.01)	0.065
Jain	51	0.2%	8	15.1%	0.88 (0.38-2.0)	0.750	65	0.2%	1	1.5%	0.24 (0.03-1.74)	0.16
Sikh	793	2.5%	99	11.9%	0.59	<0.001	1188	3.1%	1	0.1%	0.01	<0.001

					(0.47-0.73)						(0.002 – 0.08)	
Other	275	0.9%	129	44.3%	1.58 (1.21-2.06)	0.001	283	0.7%	112	36.7%	2.02 (1.54-2.66)	<0.001
Caste												
General	9035	28%	2025	21.5%	1	Ref	11343	29.7%	1017	8.6%	1	Ref
Scheduled Caste (SC)	5506	17%	1837	32.3%	1.17 (1.08-1.28)	<0.001	6856	17.9%	1023	14.3%	1.35 (1.21-1.50)	<0.001
Scheduled Tribe (ST)	5606	17.4%	2202	37.7%	1.68 (1.52-1.85)	<0.001	5983	15.7%	1938	30.8%	2.72 (2.43-3.03)	<0.001
Other Backward Class (OBC)	12154	37.6%	3509	27.7%	1.10 (1.03-1.18)	0.007	14043	36.7%	1544	10.5%	0.97 (0.89-1.06)	0.517
Material Deprivation												
Level 1	1126	3.5%	52	4.4%	1	Ref	1561	4.1%	24	1.5%	1	Ref
Level 2	3442	10.7%	394	10.9%	2.06 (1.52-2.80)	<0.001	4555	11.9%	208	4.4%	2.51 (1.60-3.93)	<0.001
Level 3	9202	28.5%	1977	20.6%	3.32 (2.47-4.46)	<0.001	11155	29.2%	924	8%	3.67 (2.38-5.68)	<0.001
Level 4	11315	35%	3721	31.7%	4.73 (3.51-6.38)	<0.001	12784	33.4%	2200	16.6%	6.16 (3.98-9.53)	<0.001
Level 5	5167	16%	2340	43.8%	7.23 (5.33-9.80)	<0.001	6142	16.1%	1477	23.3%	7.74 (4.98-12.04)	<0.001
Level 6	2049	6.3%	1112	52.5%	9.64 (7.05-13.19)	<0.001	2028	5.3%	634	30.1%	11.14 (7.11-17.46)	<0.001

How Gender Ideologies and norms in India were encashed by Tobacco Industry –

Nonetheless Tobacco industry has played a significant role in determining tobacco use behaviour especially for smoking among men and women. First of all cigarette companies targeted men of industrialised countries and they adopted smoking which was later adopted by women of those countries, and men of developing countries. In 1990s smoking started declining in industrialised or developed world (WHO, 2010). Then the multinational tobacco companies focused towards developing nations like India. They wanted to target the large naïve non-smoking population of Indian women. The industry equipped itself with some gender research including cultures, gender-norms and psycho-social aspirations of men and women. They projected cigarette smoking by women as being modern, liberated and empowered which readily attracted the attention of recently liberated women in India, and gave them a sense of social freedom. “The Tobacco Reporter, an industry document, optimistically discussed its prospects in Asia in 1998: Rising per capita consumption and an increasing acceptance of women smoking continue to generate new demand” (WHO, 2010, Internet). The industry used product differentiation and marketing segmentation to maximise customer base and thus profits. Slender, so-called “light” cigarettes packaged in pastel colours convey feminism and slimness (Ruhil, 2018). The industry sponsored fashion shows associated cigarette smoking with glamour where super-models and filmstars were seen smoking and such trends attracted young women.

Also at the same time tobacco industry projected tobacco use by men as a natural phenomenon of transition from adolescence to adulthood. The industry associated tobacco use among men with masculinity, manhood and potency. Studies have found that Masculinity is an overwhelming construct that discourage ‘feminine’ behaviours such as caring for one’s health (Morrow & Barraclough, 2010). The studies have brought forth that there are notions among men such as, “If we don’t follow our peers and smoke, they will call us feminine” (Courtenay, 2000, p. 798). The statistical evidence has also shown that being a man is the strongest predictor of tobacco use (Ruhil, 2018). Tobacco industry targeted men by using images invoking norms of risk-taking such as horse-riding (Marlboro Man). Tobacco industry used to sponsor the motor-racing and other sports

events. Brand images may appeal to people's social insecurities, which holds true in case of tobacco use.

To conclude, this section has shown that gender discussions related to tobacco use are very significant in relation to both men as well as women. Although being a man is strongest predictor of tobacco use, there are other important determinants such as age, resident, marital status, occupation, education, caste, religion and material deprivation. These factors generally interact with each other and it has been found that poor, marginalised, uneducated, unemployed, rural and deprived men and women are more likely to use tobacco as compared to their counterparts. Tobacco industry itself is the strongest determinant of tobacco use which always tries to increase its customer base by targeting both the genders. On the one hand it appeals to women as being liberated, empowered and high-class which was often shown in its advertisements. At the same time it clutches the man on the pretext of masculinity norms. The medical research has shown that tobacco use is harmful for sexual and reproductive health of both the genders. Thus the cage of gender norms constructed by tobacco industry in relation to tobacco use is getting broken down. The attitudes of both men and women towards tobacco use are also changing which is getting reflected in recent surveys. Thus instead of moving towards greater hedonism the society is now becoming more rationale. Gender constructs are getting broken down but there is a need for an overall upliftment of society towards inclusive and sustainable development.

Inequities in Tobacco related Harm (From GATS1 to GATS2) –

In previous sections, it has become evident that tobacco related harm is more pronounced for socio-economically disadvantaged or deprived groups of population. There are differential exposures as well as differential vulnerabilities for materially deprived or disadvantaged sections of society. Poor and materially deprived groups experience high level of life stressors and fewer buffering and coping resources; making them more vulnerable to tobacco consumption or tobacco-related harm. Deprived populations have lower levels of resilience or social support. The research has found that optimistic people have a sense of self-control and are less likely to indulge in tobacco use habit (Samet, 2010). On the other hand people with low self-esteem easily gets attracted by tobacco marketing which target their psycho-social needs and make them nicotine dependent (Moolchan, 2000). In the past, “Big Tobacco” described some low-income consumers as "very repressed," having "low self-esteem" and "an overall pessimistic outlook on life." [G.P. Ward, an employee of Brown and Williamson (as indicated by the headline “internal correspondence”, <https://www.thetruth.com/the-facts>)]

Several other studies have also found similar results. Rani and colleagues in 2003 analysed National Family Health Survey-2 (1998–99) and found that the prevalence of both smokeless tobacco and smoking tobacco was significantly higher in poorer, rural, and uneducated populations compared to wealthier, urban, and more educated populations, respectively, both in men and women (Rani et al., 2003). A study published in Elsevier by Neufeld and colleagues in 2005 (an analysis of data from the 52nd round of the National Sample Survey (NSS) also showed that “individuals with incomes below the poverty line had higher relative odds of use of smokeless tobacco compared to those above the poverty line” (Neufeld et al., 2005, p. 283). Further this study also reported that “respondents belonging to scheduled castes and tribes were significantly more likely to report regular use of chewing tobacco” (ibid). Moreover the study showed that “people from rural areas had higher rates compared to urban dwellers, as did those with no formal education” (Neufeld et al., 2005, p. 283). In the same year (2005) another study by Rijo M John published in Health Policy journal and it was an analysis of patterns of tobacco consumption using various rounds (43rd round, 1987–1988; 50th round, 1993–1994; and 55th round, 1999–2000) of National Sample Survey (John, 2005). The study found that “smokeless tobacco consumption increases as we go from higher to the lower income

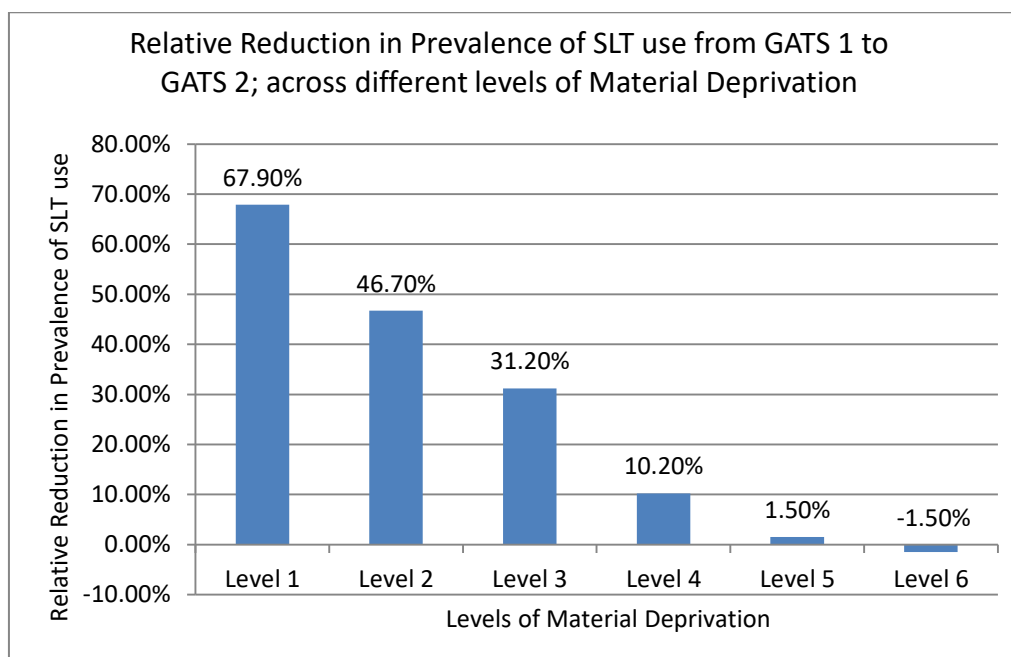
groups but prevalence of smoke tobacco was highest among the middle-income group in urban India” (John, 2005, p. 213). But Now according to 2016-17 GATS data, my study published in Sage Open (2019) showed that smoking too is becoming more prevalent in materially disadvantaged or deprived populations (Ruhil, 2019). Thus smoking which was introduced in Royal Courts of Akbar and was glamourized during colonial period and also in newly liberated era; has now becoming more prevalent among poorer populations. Moreover smokeless tobacco prevalence is nowadays higher as compared to smoking prevalence and the use of smokeless tobacco is much highly prevalent in poor populations. Now we can say that once a highly royal and high class habit of tobacco use in the forms of Hukkah, Cigar and cigarettes; is now reduced to a stress coping mechanism adopted by poor, rural, uneducated, disadvantaged and deprived populations; and they use it in the forms of Khaini, Gutkha, Bidis, Suparis, Chewing tobacco etc. Thus the problem lies at the **bottom of pyramid**. Tobacco companies are also now focusing at **fortune of numbers present at the bottom of pyramid**. That’s why they are launching various sizes of affordable sachet packs available at the cost of 2 Rupees, 5 Rupees and 10 Rupees. The tobacco companies knew this logic prior to tobacco control professionals. In tobacco control also there is a need to focus on bottom of pyramid. There is a need to address larger issues of poverty, deprivation and sufferings of the poor. Do ‘tobacco control policies’ are reaching till most deprived sections of society? The coming section of this chapter tries to answer this question.

In this section, relative reduction in tobacco use prevalence is seen (from 2009-10 to 2016-17) across different levels of material deprivation. The prevalence of tobacco use across levels of material deprivation is taken from Global Adult Tobacco Survey (GATS) India 2009-10 and GATS 2 India 2016-17. The two data-sets were comparable having similar sets of variables. Relative reduction in prevalence of tobacco use was calculated with the formula $[(P1-P2)/P1]*100$, where P1 is prevalence of smokeless tobacco use during GATS1 (2009-10) and P2 is prevalence of smokeless tobacco use during GATS2 (2016-17). Relative reduction in prevalence of tobacco use was then plotted in the form of Graphs.

Table 5.3 – Prevalence of Smokeless Tobacco (SLT) use across different levels of Material Deprivation during GATS 1 and GATS 2; and the relative reduction (if any) from GATS 1 to GATS 2.

Material Deprivation	SLT Prevalence		Relative Reduction (%)
	GATS 1 (2009-10)	GATS 2 (2016-17)	
Level 1	8.4%	2.7%	67.9%
Level 2	13.5%	7.2%	46.7%
Level 3	19.9%	13.7%	31.2%
Level 4	26.4%	23.7%	10.2%
Level 5	33.2%	32.7%	1.5%
Level 6	40.8%	41.4%	-1.5%

Figure 5.5 – Graph showing Relative Reduction in Prevalence of Smokeless Tobacco (SLT) Use from GATS 1 (Global Adult Tobacco Survey 2009-10) India to GATS 2 (Global Adult Tobacco Survey 2016-17) India; across different levels of Material Deprivation



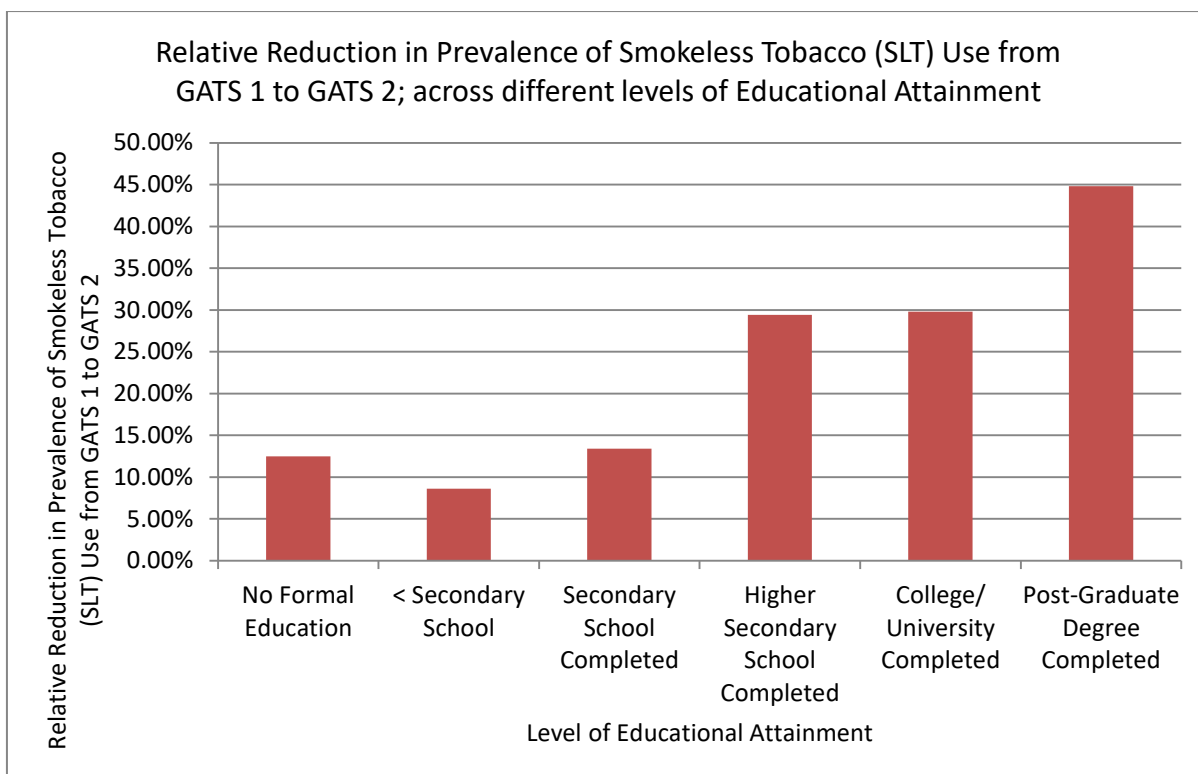
It has been shown that higher the level of material deprivation, lesser was the relative reduction in prevalence of tobacco use. In case of SLT use, the prevalence has rather increased for Level 6 of material deprivation, thus showing negative relative reduction in 2016-17 as compared to 2009-10. Even if you see the table, SLT use prevalence has rather increased among people having Level 6 of material deprivation.

Similarly relative reduction in tobacco use prevalence (from 2009-10 to 2016-17) is seen across different levels of educational attainment; which has been shown in Table and has been plotted in Graph. It was found that relative reduction in tobacco use was more for higher levels of educational attainment. In other words, relative reduction in tobacco use from 2009-10 to 2016-17, was less for lower levels of educational attainment.

Table 5.4 – Prevalence of Smokeless Tobacco (SLT) use across different levels of Educational attainment during GATS 1 and GATS 2; and the relative reduction (if any) from GATS 1 to GATS 2.

Educational Attainment	SLT Prevalence		Relative Reduction (%)
	GATS 1 (2009-10)	GATS 2 (2016-17)	
No Formal Education	30.3%	26.5%	12.5%
< Secondary School	27.8%	25.4%	8.6%
Secondary School Completed	17.2%	14.9%	13.4%
Higher Secondary School Completed	16%	11.3%	29.4%
College/ University Completed	12.4%	8.7%	29.8%
Post-Graduate Degree Completed	9.6%	5.3%	44.8%

Figure 5.6 – Graph showing Relative Reduction in Prevalence of Smokeless Tobacco (SLT) use from GATS 1 (Global Adult Tobacco Survey 2009-10) India to GATS 2 (Global Adult Tobacco Survey 2016-17) India; across different levels of Educational Attainment.



To summarise, the reduction in prevalence of tobacco use from GATS1 to GATS2, is **inequitous** across levels of material deprivation; and across levels of educational attainment by individuals. This shows that although tobacco control policies were able to make a mark in the history of tobacco control by making India reach the descending limb of tobacco epidemic (Ruhil, 2018); but these policies were unable to address the inequities in tobacco-related harm. Most of the policies targeted cigarettes and Gutkha among various tobacco products.

Now, if we look at relative reduction in prevalence/ use of different kinds of smoking and smokeless tobacco products (which is shown in table 5), it has been found that relative reduction is more for smoking products (Cigarettes, Cigars, Cheroots and cigarroles) as compared to smokeless products (Refer Table 5). Further among SLT products, Gutkha experienced more relative reduction in its use, as compared to Khaini and Betel quid with tobacco (Refer Figure 4). It shows that there has been some impact of Gutkha ban in various states in the country during the time-period between Gats 1 and Gats 2. But Gutkha is still third most popular tobacco product in the country i.e. after Khaini and Bidi. Same was the sequencing of popularity of different kinds of tobacco products during GATS 1 i.e. 2009-10.

In the words of Dr Rana J Singh from The Union:

“.....if there was a Gutkha ban, then how it is projected in GATS. In GATS, still the prevalence of Gutkha is at number 3. If Gutkha is banned, then how it is showing in GATS at number three? Whether they are asking right questions? So if those who asked questions in GATS, were able to convey that Do you understand Gutkha? Suppose I am asking, do you eat Gutkha. They responded Yes. But they don't know What Gutkha is.” [Interview at The Union Office, New Delhi on 15 June 2018]

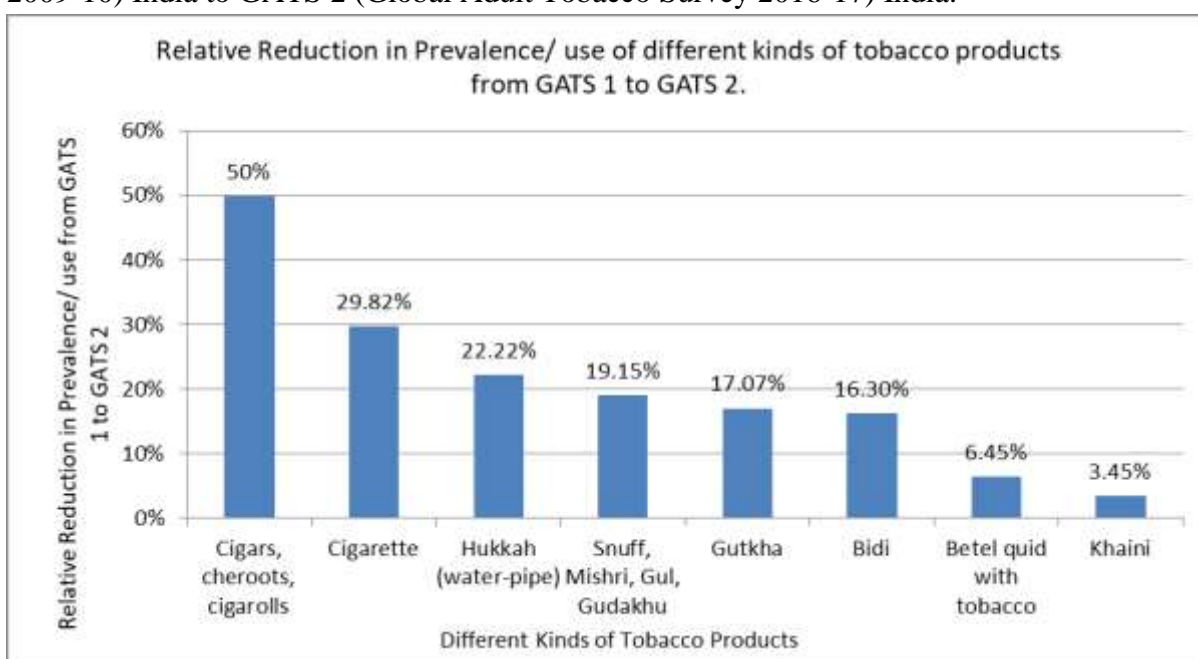
It is also evident from the table 5.5 that Khaini and Bidis are emerging as popular products, which are least regulated by existing tobacco control policies. Thus there is a tendency of product substitution among tobacco users as there is an availability of a range of tobacco products to them. Further Bidi industry is least regulated tobacco industry; rather bidi industry is being protected by governments as it has been categorised in to cottage industries. Bidis easily escape tobacco control laws such as mandatory pictorial warnings. Further Bidis are much cheaper than cigarettes. Similarly among SLT products Khaini is most popular product especially in the state of Bihar and it has not been covered under Gutkha ban. There are some socio-cultural values associated with Khaini use in Bihar. Khaini and Biri are also associated with nationalist struggle.

Table 5.5 – Prevalence/ use of different **kinds (Forms of Usage)** of tobacco products during GATS 1 (Global Adult Tobacco Survey 2009-10) India and GATS 2 (Global Adult Tobacco Survey 2016-17) India; and the relative reduction (if any) in their use from GATS 1 to GATS 2.

Tobacco Products	GATS 1 (%)	GATS 2 (%)	Relative Reduction (%)
Current Smokers	14	10.7	23.57
Cigarette	5.7	4.0	29.82
Bidi	9.2	7.7	16.30
Cigars, cheroots, cigarillos	0.6	0.3	50.00
Hukkah (water-pipe)	0.9	0.7	22.22
Current SLT Users	25.9	21.4	17.37
Betel quid	6.2	5.8	6.45

with tobacco			
Khaini	11.6	11.2	3.45
Gutkha	8.2	6.8	17.07
Snuff, Mishri, Gul, Gudakhu	4.7	3.8	19.15

Figure 5.7 – Graph showing relative reduction in Prevalence/ use of **different kinds (Forms of Usage)** of tobacco products from GATS 1 (Global Adult Tobacco Survey 2009-10) India to GATS 2 (Global Adult Tobacco Survey 2016-17) India.



To conclude, tobacco control policies are some micro-level policies focusing on proximal determinants of tobacco use. Majority of these policies are focusing on supply-side issues of tobacco products i.e. accessibility and availability of tobacco products. Among the demand-side issues, the policies are focusing on individual level determinants, and doing IEC activities and cessation programmes. There is a need to address some structural level determinants of tobacco use. We need to address the question that why tobacco use is more prevalent in highly deprived and disadvantaged groups. Also why the current policies could not reduce the consumption of tobacco among highly deprived groups of

individuals? Thus there is a need to work on macro-level policies instead of focusing on micro-level determinants of tobacco use. The policies should address the poverty and deprivation issues. There is a need to promote resilience by including social protection in our policies; raising levels of education and skills; and reducing social exclusion. There is a need to solve the underlying causes that have given rise to the tobacco-related inequities in the first place. The annual budgets should facilitate for increased spending on social welfare policies that can mitigate the impacts of economic recession and unemployment. There is a need to increase early childhood investments to ensure that every child gets the best start in terms of health, education and social support. There is a need to promote life-long opportunities for education and skills training. We need to address broader issues of hopelessness and exclusion (financial as well as social) because these groups have higher prevalence of tobacco use as shown earlier. Thus there is a need to involve people from deprived, less educated (or uneducated) and excluded groups; in the development policies in order to fulfil their rights to education, health, employment and housing.

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Chapter 6 –

Evolution and Structure of Smokeless Tobacco Industry

Evolution and Structure of Smokeless Tobacco Industry

Evolution of Smokeless Tobacco Industry –

As described in literature review chapter; from the very beginning i.e. introduction of tobacco in India, it got penetrated deeply in to religion, culture and customs of India. India as a country has been always known for its rich culture and so it was imperative for tobacco merchants to get their product sanctioned from the rich cultural heritage of India and made it ‘Sacrosanct’. They carefully introduced it to religious and holy betel leaf, as they knew it was the best way for tobacco to penetrate in to religion of India and subsequently in to the lives of religious Indian populations. From there the journey towards culture and customs of India became easy and the practice of chewing tobacco got strengthened under the protective shadow of Indian culture; as tobacco merchants knew how genuinely Indians follow their customs and cultural norms.

However Mr Pranay Lal from The Union says that it will be a mistake to state tobacco use as being cultural to India. As the term culture has a broader meaning. In his own words,

“The reason is that if Columbus found America in early 1500s and he came back with the tobacco leaf. It came to India in 1640 in the courts of Jahangir and then he banned it. Then in 1700 it started growing in parts of India. Now in a country which is 10,000 years old in terms of civilisation; these 300 years mean nothing. In fact, that you say culture. So what is culture? That’s a larger question. You can read the works of ‘Edward Saeed’ or ‘Ramila Thapar’; people like them says ‘what is culture’. For example, people says that, ‘it is today’s culture that children remain busy with cell-phones’. That’s a common term we use, but culture is not that.” [Interview at The Union Office, New Delhi on 15 June 2018]

He further explained:

“That is, Please don’t say that tobacco is traditional to India. It seems as if everybody from Kashmir to Kanyakumari; and from Kuch to Kohima; everybody was taking tobacco. Our traditional tribal communities do not know about it; they do not cultivate it. The Chenchus, the Yenadus, the Jarvas, the Rajshahis do not know tobacco. It has reached now, in the last 15-20 years. Earlier they did not know. The Penetration has also not been so much. It is only locked up in pockets. It became prevalent. If you begin your argument from here, it is the same argument. I am saying purely from anthropological perspective, even archaeological perspective. In the sense, when did the plant come and how did it dispersed through India and what were the uses when it disbursed. It is the logical way to look at it..... It is not like Diwali ki Pooja. That’s cultural. This is not cultural. So you need to be very clear when you say something which is cultural.” [Interview at The Union Office, New Delhi on 15 June 2018]

After this key informant interview with Mr Pranay Lal, I got inquisitive to find out what Romila Thapar and Edward Said have written about culture.

In the words of Romila Thapar, “The question therefore of who is defining the culture of a society becomes a central question, since it decides on what is to be included and what excluded. The latter is often the elephant in the room” (Thapar, 2018, p. 182).

I completely agree with this argument that Thapar has made that culture is constantly created through patterns of living and how we relate to the world we live in; and thus the definition of culture depends on contextual background. In this context we may say that smokeless tobacco use has been finely ingrained into our culture. It may not be our cultural heritage but it has definitely found its space in our culture and religion. I do not think, we can demarcate a timeline that something which is 10,000 years old is our culture and something which is 300 years old is not our culture. But surely there are dominant cultures, minority cultures, exotic cultures, and many cultures existing at same time constantly interacting with each other and influencing each other. Romila Thapar has also written in her book ‘Indian cultures as heritage’, “culture after all is not limited to the past but has also to do with what might be called the contemporary past. This is not a contradiction in terms but gives rise to what we call our cultural heritage. What do we select of heritage and what do we reject and why?” (Thapar, 2018, p. XXXIV).

Edward Said has also argued in his book *Culture Imperialism* that past cultures cannot be quarantined from present cultures as both co-exists and compliments each other. In fact, past cultures shapes the understanding and views of the present cultures. Further culture is also a source of identity and colonialism resulted in varieties of nationalist as well as religious fundamentalism (Said, 1994).

Rapport Nigel has written about plurality of culture which should be understood in a particular context. He has also written about post- colonialism politics of culture. He argued that western culture was imposed during colonialism and the native cultures were subjugated. He further explained it in terms of politics of exotica. Western culture was considered superior and it was antipathic towards native cultures and thus gave way to “Acculturation” (Nigel, 2014). Smokeless tobacco use in India is also a result of

“Acculturation” and then it got imbibed into daily habits of both rich and poor especially affecting the poor masses.

During 20th century, when markets were dominating the society and everything was getting commercialised, smokeless tobacco also got commercialised which is discussed in next section. This was the era of commercialisation and smokeless tobacco also went through this process where its forms of usage also changed and set the stage for upcoming craze of Gutkha pouches everywhere.

Commercialisation of smokeless tobacco –

The commercialisation of smokeless tobacco began in the start of 19th century i.e. 1800 onwards. It started with Beniram Mathuram Banaras who first branded the chewing tobacco. He was preceded by Sughani Sahu from Banaras itself. The real name of Sughani Sahu was, ‘Babu Devi Prasad’ who was father of popular novelist Shri Jai Shankar Prasad or ‘Prasad Ji’. People of Banaras held their family in high esteem and gave them the honour of King of Banaras. Based on an in-depth interview with the third generation of the family:

Great Grandson of ‘Prasad Ji’. He has an office in Lajpat Nagar, Delhi. He helped me with his time and valuable information regarding his tobacco merchant family. He told that the present generation is about 7-8th generation of Shri Sughani Sahu. About 8-9 generations back, Shri Manohar Sahu from this family in Banaras started the business of snuff.⁶ He switched to this business from the business of Sugar. He started this business at a place called ‘Mohan Saray’ near Banaras. He also used to sell at ‘Ghats’ of Banaras. There is a place near Vishwanath temple in Banaras called ‘Tedhi Neem’ where he used to sell snuff. His son and Grand-father of Prasad Ji – Shivratn Sahu established this business in the form of a Registered firm. He established this firm in the oldest market of Banaras called ‘Chowk Market’ in 1813. The firm is still operating there by great grandsons of the family. The business flourished a lot at the time of ‘Sughani Sahu’ or ‘Babu Devi Prasad’. He lived till 1900. He was father of famous novelist shri Jaishankar Prasad or ‘Prasad Ji’. There was Kashi Naresh – King of Banaras at the time of Sughani Sahu. The family of Prasad Ji

⁶ Snuff is nasal form of tobacco use and is made from long leaves of tobacco plant. Snuff in Hindi is called – ‘Sughani’. It started as a cure for cough and cold. The form of tobacco plant used in snuff is called ‘Surti’ and is cultivated in Surat in Gujarat. The name of Surat was formed due to cultivation of ‘Surti’ at that place.

was having an honour in Banaras equivalent to king's family. The family of Prasad Ji used to give lots of donations. They established 'Shiv Mandir' at 'Tedhi Neem'. This family is still living at 'Saray Govardhan Mohalla' in Banaras and running the shop at 'Chowk Market'.

During the period of 'Sughani Sahu' they experimented snuff with several perfumes and flavours – Gulab, Kewda, etc. They also added tobacco to toothpowder and sold it in the form of toothpowder which was later banned by government of India.

Babu Devi Prasad had two sons. One was novelist 'Prasad Ji'. Other was Shambhu Ratan ji. At that time British Government used to appoint jury in court. The jury used to have some Indian representatives also. Both the brothers – Shambhu Ratan Ji and Jai Shankar Prasad Ji were appointed in the jury. Shri JaiShankar Prasad Ji resigned at the very first day because he did not want to work under Britishers. He continued with his novel writing. Shambhu Ratan Ji worked in jury for some time and later he too resigned. Both the brothers also continued their snuff business. They introduced 'Kimam' tobacco. The son of Jai Shankar Prasad – Shri Ratan Shankar Prasad also continued this tobacco business further. He ventured into export and import of tobacco especially its export to Gulf countries. Their firm is called 'Sughani Sahu' firm. Shri Ratan Shankar Prasad Ji had six sons. Out of them, only third son continued this tobacco business. Other brothers diversified into other businesses. Most of them diversified into the business of Marble. Some cousins are doing jobs in Banks after completing their post-graduation. Shri Vijay Shankar Prasad Ji is continuing with business of snuff but there is a major fall-down in this business at present. He is also running an organisation called 'Mahakavi JaiShankar Prasad Foundation' where he is preserving and promoting the work of his great grandfather – famous novelist – Shri Jai Shankar Prasad. He is translating the work to other languages like German, French, English and promoting the work in other countries.

One more interesting fact that Vijay Shankar Ji told me was about excise taxation on snuff. At the time when Mrs Indira Gandhi was prime minister of India, there used to be complex taxation system of tobacco. There was excise tax at every step from procuring tobacco leaves to its manufacture to the sale of snuff. Then their family at that time filed a court case against excise taxation on snuff. The case continued for many years and ultimately their family won the case. Since then they were exempted from paying excise taxation. In the present taxation system – least cess is applied on preparations containing

snuff i.e. 7 percent whereas cess on 'Gutkha' is 204 percent. Although GST is constant on all tobacco products i.e. 28 percent. Cess is additional to GST.

Vijay Shankar Ji also told about some other firms. 'Jagat Gutkha' is also from Banaras. Nowadays Kanpur is flourishing in manufacture of tobacco. 'Kamla Pasand Gutkha' is from Kanpur.

Snuff is also manufactured in Gujarat. Two famous snuff manufacturing firms in Gujarat are 'Rani Sughani' and 'Gulab Chap Sughani'.

I also interviewed his father, who is about 70 years old. The information he gave is as follows:

Their family was first to start this business of tobacco in 1813 in Banaras. First they invented Snuff (naswaar). Then they made Zarda. In 1973-74, there was no excise tax on Zarda and now it is too much. One company named 'Radha Vilas Kaaryalaya' in Banaras added Kesar flavour to Zarda and this 'Kesar Zarda' became very popular. Banarasi Zarda was first one to be launched in market and is very famous till now.

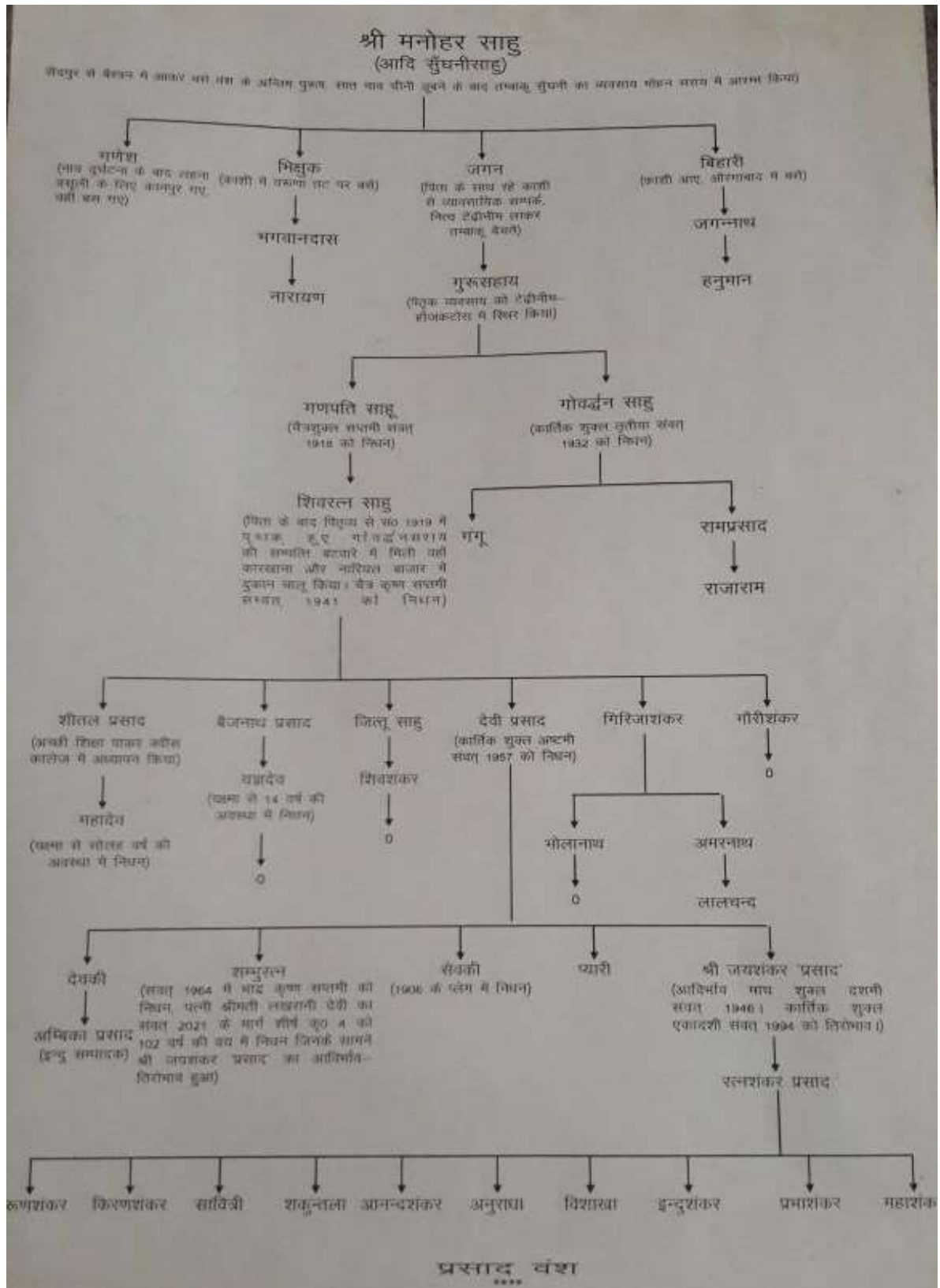
Gutka and Pan Masala were invented in Kanpur, UP. In 1975 Pan Masala was invented in Kanpur. Then in around 1980 the companies in Kanpur experimented by adding Zarda to Pan Masala. This Redimix was named Gutka. Then in 1980s pouches of Gutka started, which was a blow to the traditional business in Banaras. The business of Paan and Banarasi Zarda got badly hit by these Gutka pouches.

After that Gutka companies started flourishing. On the other hand tobacco business in Banaras experienced a decline. Now the business is almost zero with tobacco control policies of Government. There were many small informal businesses of tobacco in Banaras which got badly hit. Their livelihoods were at stake.

Thus there are dynamics within smokeless tobacco industry itself. SLT industry is not a monolith, whereas Paan, Zarda, Gutkha and Khaini compete among themselves also. As shown in this interview, the launch of Gutkha pouches in 1980s in Kanpur swayed away the SLT markets at the cost of Banarasi Zarda and Paan industry. Such trends are continuing till now.

Family tree of Prasad Family is shown in next page.

Figure 6.1 – Flow Chart showing Family Tree of Prasad Family (One of the Pioneers in Smokeless Tobacco in India).



As shown in previous chapter, Gutkha ban resulted in upsurge of Khaini usage. Thus availability of wide varieties of smokeless tobacco and continued invention of new varieties of products is a barrier to tobacco control; as it results in product substitution and such trends are not recent as it was present since the history of SLT use itself. The regulations on organised tobacco industry also results in flourishing of unorganised tobacco industry and the market gets flooded with local as well as counterfeit tobacco products. Let us first discuss some of the characteristics of organised tobacco industry.

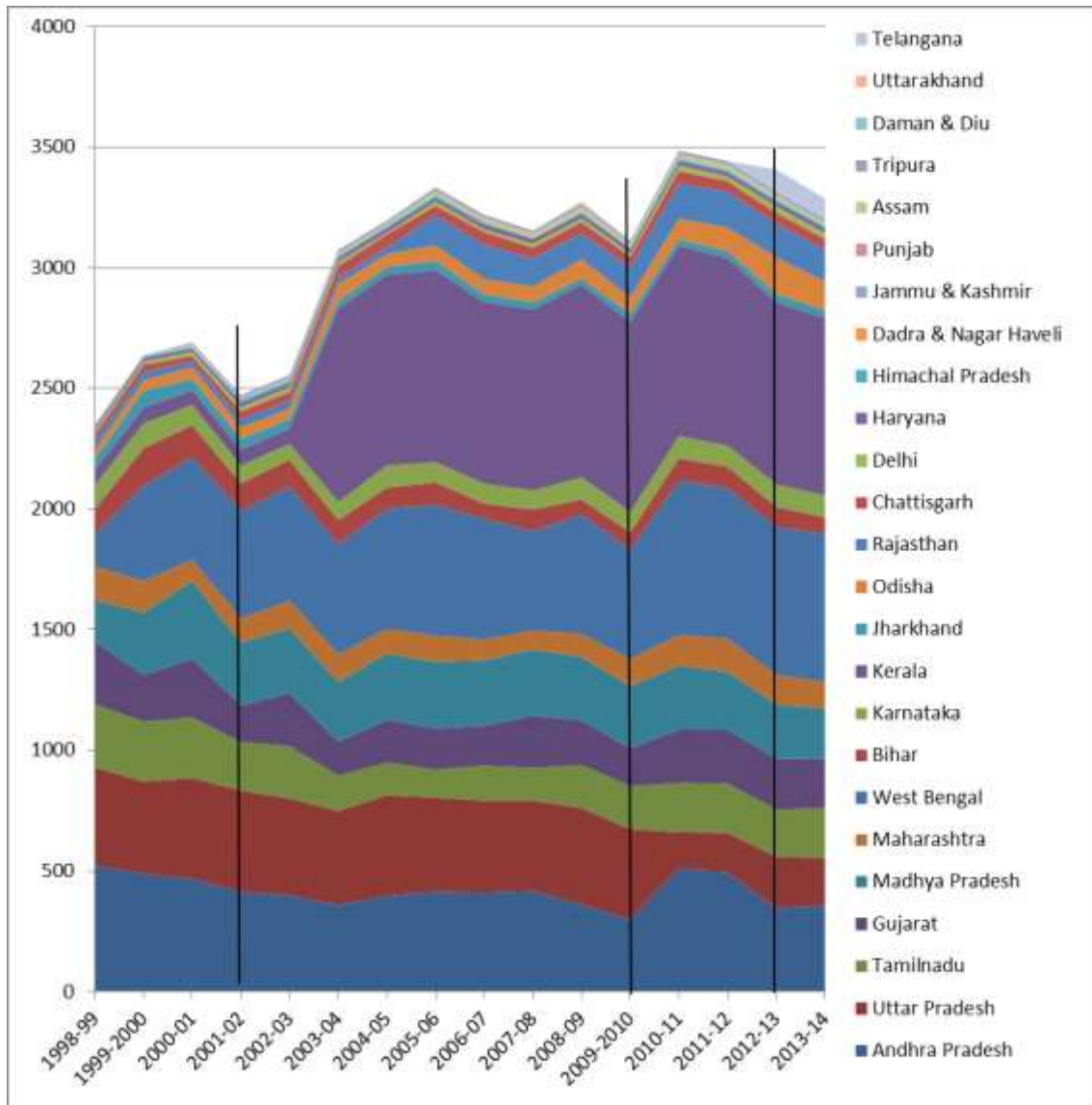
Characteristics of organised tobacco industry –

The analysis of annual survey of industries data from 1998 to 2014 shows that number of tobacco industries in organised sector in India, have increased constantly from 1998 to 2014 with two major dips in-between i.e. during 2001-2002 and 2009-10 (Refer Figure 6.2). Also the net income of industries and profits of industries dipped significantly during 2009-10 (Refer Figure 6.5 and Figure 6.6). The reason might be that Cable Television Networks (Amendment) Act came in 2000 which “prohibited tobacco advertising in state controlled electronic media, cable television and publications”. The government enacted the “cigarettes and other tobacco products (prohibition of advertisement and regulation of trade and commerce, production, supply and distribution) Act (COTPA)”, in 2003. The act included, “ban on smoking in public places, ban on advertisements of tobacco products, ban on sale of tobacco products to and by minors, ban on sale of tobacco products within 100 yards of all educational institutions and mandatory display of pictorial health warnings on tobacco products packages” (Kaur & Jain, 2011, p. 221). The law also mandated “testing of all tobacco products for their tar and nicotine content” (Kaur & Jain, 2011, p. 221). Smoke-free rules came in to effect from 2nd October, 2008. The law related to pictorial warnings on tobacco products packages got implemented with effect from 31st May 2009 (Kaur & Jain, 2011). The National Tobacco Control Programme was launched in 2007. After 2010, the tobacco industry showed its resiliency and must have played great tactics so that their net income and profits shot high by 2013 (Refer Figure 6.5 and Figure 6.6). Number of workers in tobacco industry has remained more or less constant over time (Refer Figure 6.3). The reason might be that most of the cigarette production is automated. The smokeless tobacco industries also have automated machines for manufacturing and packaging tobacco. Much of the Bidi industries and also smokeless

tobacco industries are unorganised which employ large number of labourers and the data about unorganised tobacco sector is unavailable. Figure 3 shows that wages of workers in organised tobacco industries have not increased much over time (Refer Figure 3). If we look at the increase in net income and profits of industry, the increase in wages of workers is negligible (Refer figures 6.4, 6.5 and 6.6). It points towards exploitative nature of industries because inflation has always been on rise.

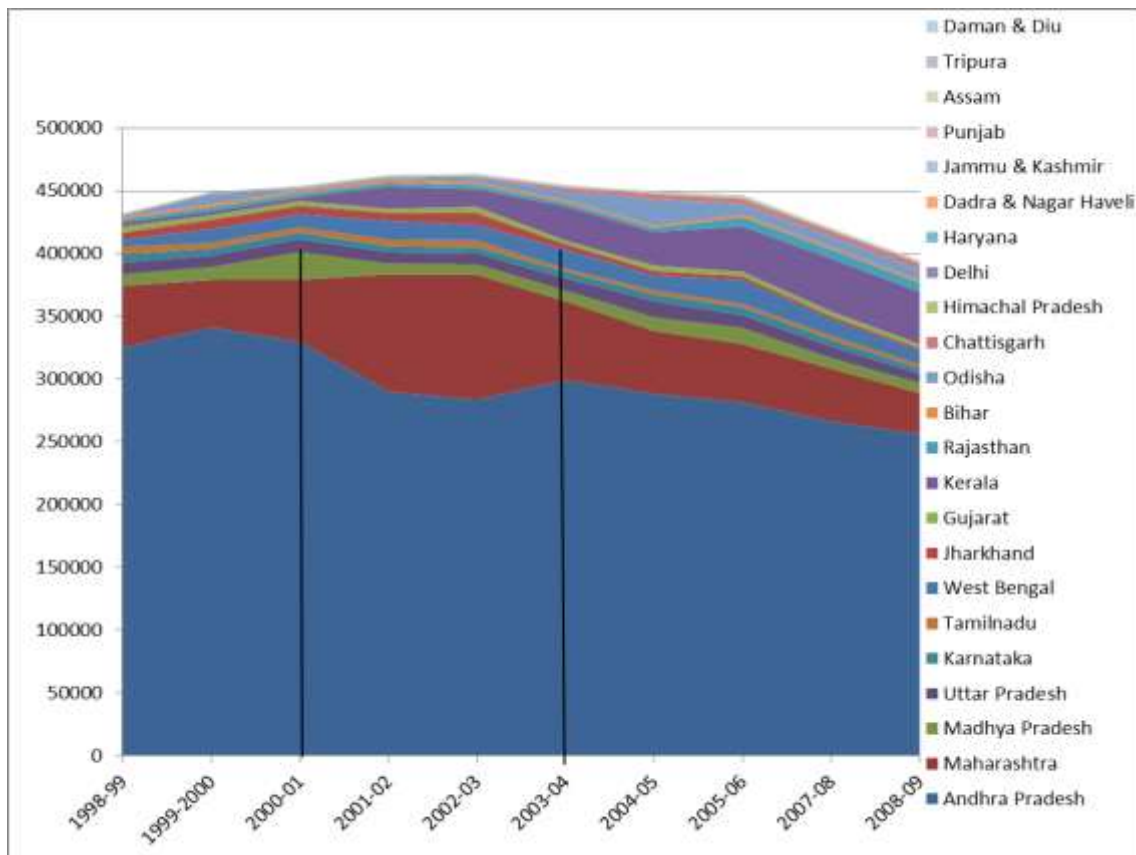
If we analyse the data state-wise, it was found that during 1998-99 Andhra Pradesh and Uttar Pradesh had largest share of tobacco factories (Refer Figure 6.2). By 2014, Kerala and West Bengal had largest share of factories followed by Andhra Pradesh and other states (Refer Figure 6.2). Figure 6.3 and 6.4 shows that Andhra Pradesh constantly had significantly large share of number of workers and wages paid to workers. Obviously if the number of workers are highest than amount of money went in wages will also be highest for Andhra Pradesh (Refer Figure 6.3 and 6.4). This might be the reason that, although net income was high in Andhra Pradesh from 1998 to 2009, but profits were very less for Andhra Pradesh (Refer Figure 6.5 and Figure 6.6). In 2009-10, the net income of Andhra Pradesh tobacco industries dropped significantly (Refer Figure 6.5). The industry showed its resilience and picked up within a year but again in 2012-13, with the formation of Telangana as a separate state, the net income and profits of tobacco sector in Andhra Pradesh turned negative whereas Telangana had sufficient net income and sufficient profits (Refer Figure 6.5 and 6.6). If we look at the number of factories manufacturing tobacco products, Andhra Pradesh had sufficient number of factories while relatively very less number of factories shifted to Telangana state (Refer Figure 6.2). Thus there might be some other reasons for loss of net income for Andhra Pradesh tobacco sector in 2012-13. By 2014, Uttar Pradesh tobacco industries emerged as most profitable tobacco industries followed by tobacco industries in Maharashtra and then in Bihar (Refer Figure 6.5 and 6.6). Thus in 2013-14, Uttar Pradesh had largest share of profits in tobacco industries. From 1998-99 to 2008-09, Andhra Pradesh had largest number of workers in tobacco industry but the profits of Andhra Pradesh tobacco industries in 2013-14 were relatively negligible and in 2012-13, Andhra Pradesh tobacco industry was at loss.

Figure 6.2 – Graph showing Number of Factories manufacturing Tobacco in different states of India from 1998 to 2014.



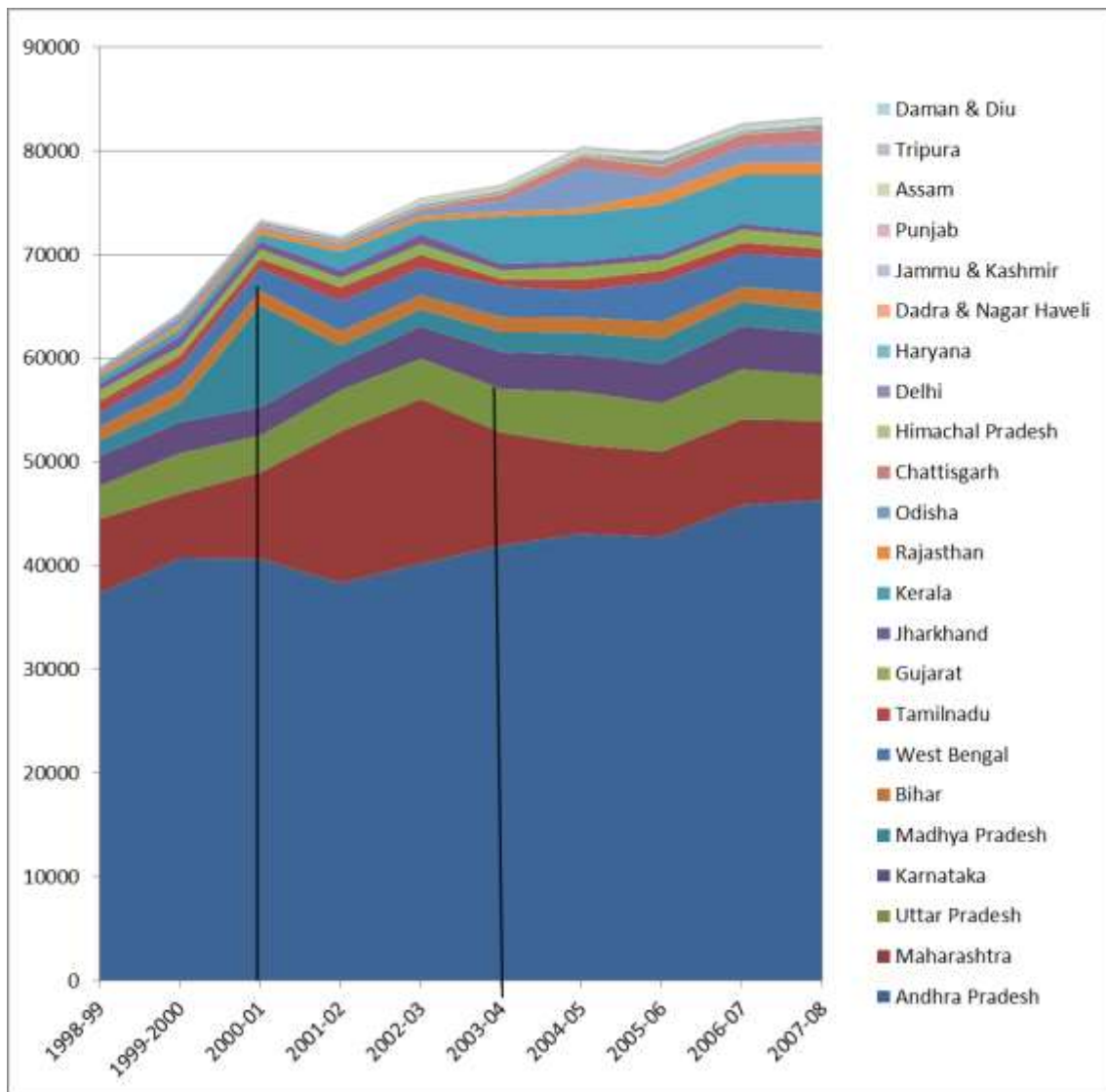
Source of Data – Annual Survey of Industries’ Annual Reports (From Year 1998-99 to the Year 2013-14).

Figure 6.3 – Graph showing Number of workers in organised tobacco industry in different states of India from 1998 to 2009.



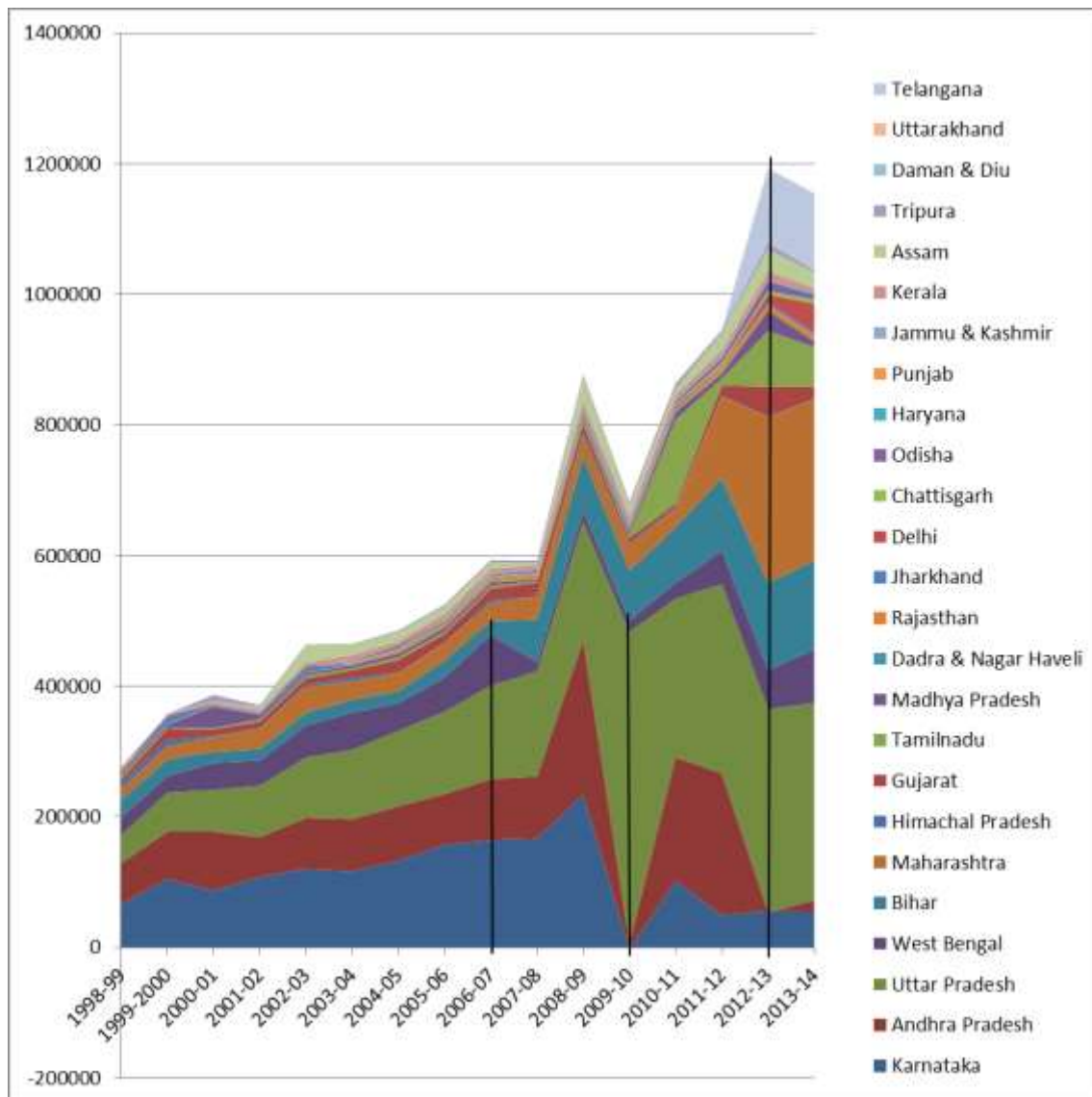
Source of Data – Annual Survey of Industries’ Annual Reports (From Year 1998-99 to the Year 2008-09).

Figure 6.4 – Graph showing Wages (In Rs Lakhs) given to workers in organised tobacco industry in different states of India from 1998 to 2008.



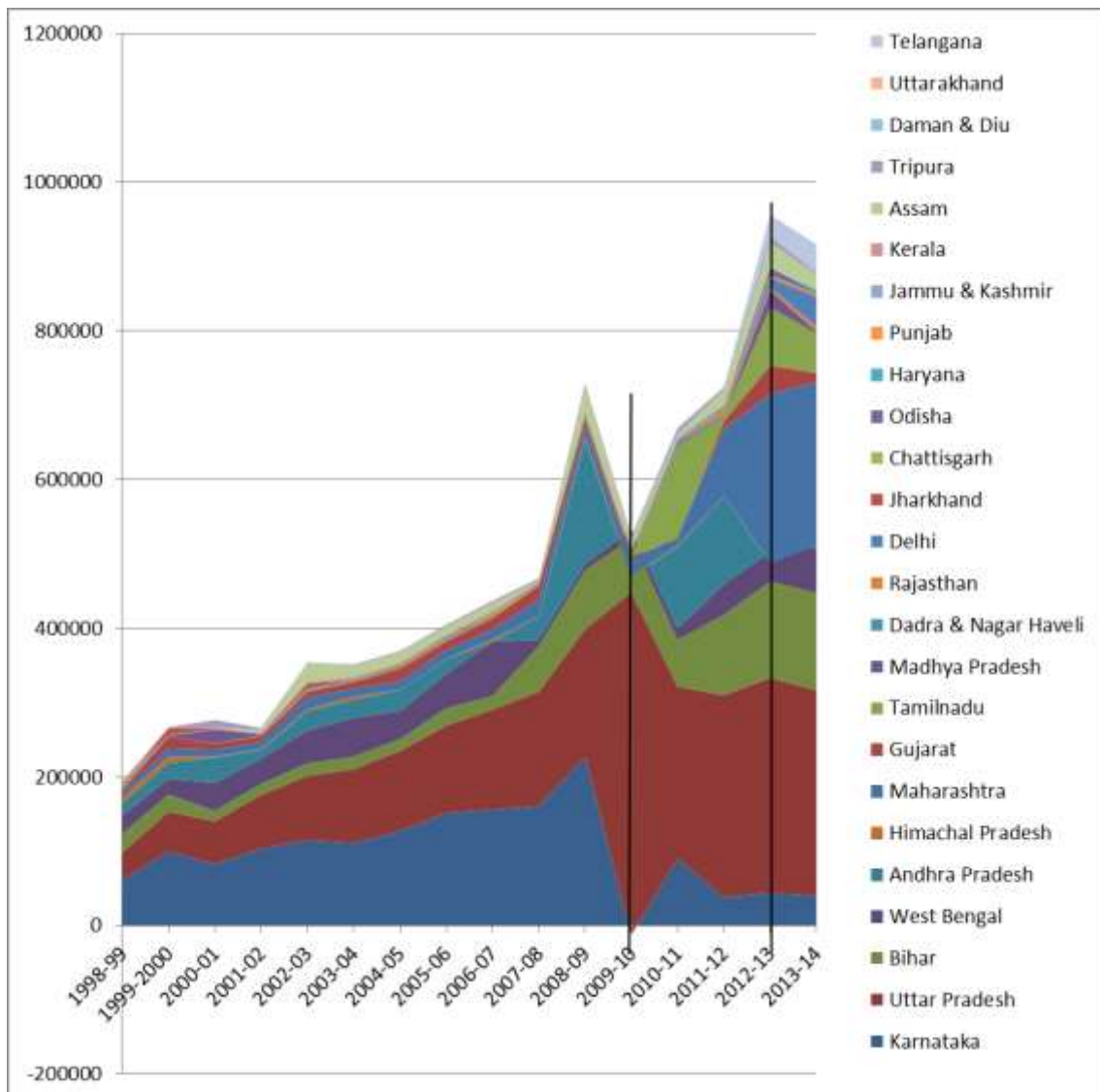
Source of Data – Annual Survey of Industries’ Annual Reports (From Year 1998-99 to the Year 2007-08).

Figure 6.5 Graph showing Net Income (In Rs Lakhs) of industries manufacturing Tobacco in different states of India from 1998 to 2014.



Source of Data – Annual Survey of Industries’ Annual Reports (From Year 1998-99 to the Year 2013-14).

Figure 6.6 – Graph showing Profits (In Rs Lakhs) of industries manufacturing Tobacco in different states of India from 1998 to 2014.



Source of Data – Annual Survey of Industries’ Annual Reports (From Year 1998-99 to the Year 2013-14).

Thus, the tobacco industry in India proved to be a perfect example of increased commercialisation in India over time. The agriculture also got commercialised and increasing profits for the industry remained the only objective for the industry and got priority over all other social and public health concerns. The workers involved in this industry formed associations and evolved with many arrangements to protect their interests but the basic nature of industry remained exploitative from sixteenth century till date. The industry always played tactics to strengthen its existence and proved to be very resilient in nature. It started in Andhra Pradesh and Gujarat but now has spread all across India and makes best use of any opportunity available in any state of India with number of factories increasing in Kerala and West Bengal while profits are increasing in Uttar Pradesh. From home-based business to large industries, both organised as well as unorganised, from cigarettes to bidis, from Desi tobacco to flue-cured Virginia tobacco, from local use to high exports; the industry is multi-faceted, widespread, strong and prosperous. Equally strong efforts are required to regulate this industry. It is very important to understand the history, evolution and nature of tobacco industry to regulate it.

Smokeless tobacco industry in India

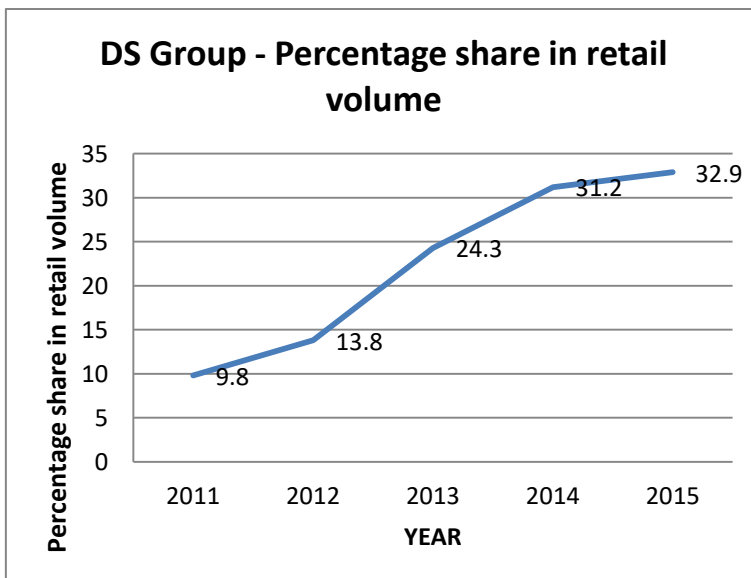
Smokeless tobacco is a highly unorganized industry with a lot of small regional players who often operate illegally. Their set-up costs are low and they can easily shut down or relocate their plants if the enforcements of ban become stricter in their region. Thus the industry is completely dominated by local and domestic manufacturers, as these economically price their products and produce in bulk. This makes it less lucrative for international players to venture into importing smokeless tobacco and selling in India. However, with regard to domestic manufacturers, smokeless tobacco remained highly fragmented based on local preferences, with only a few players such as DS (Dharampal Satyapal) Group having nationwide coverage (Euromonitor, 2016).

Most manufacturers continued to focus on premium smokeless tobacco brands in 2015. According to trade sources, premium smokeless tobacco brands accounted for 31% of total value sales in 2014. A majority of middle-class consumers are shifting towards premium brands, which are perceived as being less harmful and incurring a lower risk of mouth cancer. The majority of smokeless tobacco manufacturers launched separate packaging for zarda and pan masala (the two main ingredients in gutkha) in an effort to maintain sales of

Asian-style chewing tobacco. Sale of loose/unbranded products is also very common. In states where popular brands stopped operating post ban, local players often start using their brand attributes and sell counterfeit products (Euromonitor, 2016). Lot of chewing tobacco players (e.g. Kuber) are now entering the Pan Masala market which is almost thrice the size of Smokeless Tobacco in value. DS Group, Miraj Group, Kothari Group have all diversified into multiple sectors ranging from allied product categories such as mouth fresheners, beverage to Infrastructure.

As per the Euromonitor data available for the year 2015, DS (Dharampal Satyapal) group was leading in smokeless tobacco markets with a retail volume share of 33%. Its Tulsi and Baba brands were very popular and its distribution network was very wide. Moreover Gutkha ban of 2015 reduced the availability of other brands. During this time, DS group started selling Pan Masala and Zarda packets separately, so that the consumers could mix them and make Gutkha themselves. Due to these reasons, the company’s share increased significantly in 2015. Figure 6.7 represents percentage share of DS group in retail volume over the years (Refer Figure 6.7).

Figure 6.7 – Graph showing percentage share of DS group in retail volume of smokeless tobacco over the years



Source of Data: Euromonitor International 2016

The founder of DS Group was Lala Shri Dharampal Ji Sugandhi who was born in 1901. His family was into agriculture in Karnal, Haryana. Shri Dharampal Ji chose urban roads

of old Delhi and began a modest perfume shop in Chandni Chowk in the year 1929. The shop revolutionized into market of chewing tobacco and became renowned all over India and even outside. Shri Dharampal Ji was succeeded by his son Shri Satyapal Ji Sugandhi. Shri Satyapal Ji launched the brand BABA in 1964 which became very popular and is a leading brand in chewing tobacco till today. In 1979 Tulsi Zarda was launched which is used today as a twin pack with Rajnigandha Pan Masala. At the same time, the company ventured into mouth-fresheners and Tansen mouth-freshener was launched in 1976. In 1983 the world famous and most popular Rajnigandha mouth freshener was launched. The company started diversifying into other businesses and in 1987 “Catch” free flowing salt and pepper was launched which was a revolution in table- top dispensers.

By the end of 20th century, the company accumulated enormous wealth and in 2000 it forayed into Hotel business with the acquisition of Hotel Manu Maharani in Nainital. In 2014 Hotel Radisson Blue DS was the first 5-star hotel in North-east in Guwahati. In 2015 Hotel Crown Plaza DS was opened in Jaipur. In 21st century the company has diversified in to many related and even unrelated businesses of dairy, rubber, agro-forestry and packaging. In 2006, the group set-up the largest state-of-the art heat resistant latex rubber thread plant in North-East. In the same year the group also entered in to agro-forestry business. In 2011 the group ventured into dairy business and in 2013 launched the brand Ksheer.

The company has also been into charitable activities since early years and established DS charitable trust in 1983. The CSR (Corporate Social Responsibility) projects of the group include water conservation, livelihood enhancement and Integrated Community Development. The company has also been awarded by CII (Confederation of Indian Industries) – The National Water Management Award in 2011. This shows the stature of the Industry and its strength in terms of powerful lobbying and influence on society. But the research has shown that “tobacco cultivation consumes about 2,925 cubic meters water per ton of raw tobacco which is more than twice the water required for corn” (Mekonnen & Hoekstra, 2011, p. 1584). Also the “production of 676 billion cigarettes in 2013 consumed about 2.46 million cubic meters of water” (BAT, 2014). Moreover tobacco cultivation and manufacturing also pollutes ground water, as many harmful pesticides used in crops and chemicals used in manufacturing, percolate down to the ground water, making it unsuitable for drinking purposes. The “non-biodegradable waste produced after tobacco consumption (butts, packs, pouches)” also pollutes water-bodies and water-ways.

The second largest value share (6.8%) in smokeless tobacco market is of Urmin group having Baghban Zarda as its major brand (Euromonitor, 2016). Urmin group is based in Gujarat with its headquarters in Ahmedabad. The group was founded in 1960s by Nanubhai V. Majithia. This group has also diversified into Food and Beverages, Hospitality and Healthcare. In Healthcare, the group produces world-class custom-made bio-medical disposable products in India as a joint venture with Austria based global medical technology player “Greiner Bio-One GmbH”. The group also export its FMCG products and tobacco products to Middle East in UAE, Qatar, Saudi Arabia and in USA and UK markets.

The third largest value share (2.6%) in smokeless tobacco market is of Miraj group having Miraj Khaini as its major brand (Euromonitor, 2016). Miraj group is based in Rajasthan. It started in 1987 as a tobacco company. Over the years it enjoyed huge profits and thus invested those profits in diversifying their business. Their diversified business portfolio include Beauty care, Stationary, Plastics, Safety matches, Pipes & fittings to Hospitality sector, Perfumery Division, Engineering Division, the Tea sector , Film Making division, Music Industry. Various films produced by Miraj entertainment Ltd. include ‘Queens! Destiny of Dance’, ‘Madaari’, ‘Tell me O Khuda’, and ‘Sona Spa’. These are main stream commercial films with popular star-cast. For example, Madaari is starring Jimmy Sheirgill, Irrfan Khan & Tushar Dalvi in leading roles and is directed by Nishikant Kamat. ‘Tell me O Khuda’ features Hema Malini, Dharmendra, Isha Deol, Rishi Kapoor, Vinod Khanna as main characters. The film ‘Sona Spa’ features Aahana Kumrah, Naseeruddin Shah, Shruti Vyas and Pooja Pradhan as main characters. This shows prosperity of the Miraj group which began via single tobacco company.

The CSR activities of Miraj group include tree plantation, schools, gaushala, medical aid, stadium and sponsoring sports events. Regarding medical aid, it has provided “Fully Equipped ICU & Ambulance at ‘Shree Govardhan General Hospital’, Nathdwara, Rajasthan. Also ‘Zeiss Opmi Vario’ Microscope & Operation table ‘Mizuho’ with cranial attachments in Neurosurgical ICU at Maharana Bhupal General Hospital, Udaipur has been provided by Miraj group” (Miraj group website). Regarding sports CSR, “the Group has built a world class sporting complex cum stadium in Nathdwara. This stadium has been

instrumental in providing training to a number of aspiring cricketers and other sportsmen. This stadium has floodlights and is fully equipped with modern amenities. The group has also sponsored many national and international sporting events like Indo – Pak Veteran Cup on 23rd February, 2007; and 23rd Sub – Junior National Badminton Championship from 8th October to 14th October, 2009” (Miraj group Website). The point to be noted here is that sponsorship by tobacco companies is banned under COTPA (Cigarettes and Other Tobacco Products Act, 2003); but since the group has diversified into many other businesses, it can easily escape the law, thus promoting all its businesses including tobacco business.

Apart from these three top-most smokeless tobacco companies; my research also included Kuber group, Shikhar group, Shudh Plus group, RMD group, Kothari group, Dilbagh group, Kamla Pasand Group and TRDP (Tej Ram Dharam Paul) group. The findings were following:

The smokeless tobacco companies have their presence all over India and even outside. Kuber group is based in Sonapat (Haryana). Shikhar group is based in Delhi- NCR. “Shudh Plus” or “Wizard fragrances” is located at Gorakhpur (Uttar Pradesh). RMD group or Manikchand group was initially based in Maharashtra. Kothari group or Pan-Parag group is based in Kanpur (Uttar Pradesh). TRDP group is based at Maur Mandi (Punjab) and Nathpur (Haryana). However distribution network of these big companies is throughout India and overseas. Almost all of these companies are exporting their products to foreign countries. Kuber group has overseas distribution to Uganda, Tanzania, UAE, South Africa, and some other countries. Shikhar group is exporting to Gulf countries, Singapore, Malaysia, Thailand, and Africa. Similarly RMD group has a huge international market. The RMD group has also won “Top Export Award” from Tobacco Board; and has been recognised as “Star Export House” by Government of India. Dilbagh group is exporting to Middle east, USA and Malaysia. TRDP group is also exporting to Middle East, Dubai, Sharjah, Saudi Arabia, and Behrain. Thus majority of smokeless tobacco companies are looking towards middle- east and Arab countries as their future markets; especially after Gutkha ban in many states of India. There is no such ban in middle-east and Arab countries (Maziak et al., 2013). Although many Arab countries have ratified WHO FCTC but

compliance is minimal (ibid). Regarding use of smokeless tobacco, none of the Arab countries have passed any legislation towards its regulation (ibid).

The SLT companies have also diversified their business portfolio. This is especially important for these companies to sustain as the tobacco control advocates' lobby is getting stronger day by day after getting funding from Bloomberg Philanthropists. Second reason of diversification is to invest the great wealth that had been accumulated over the years from prosperous tobacco business. For example, RMD group, also known as Manikchand group; has diversified its business into Manikchand Roller Flour Mills, Wind Energy Solutions, JRD Designs, Pet Preforms and closures, Manikchand packaging, Manikchand promoters & developers Pvt. Ltd, Oxyrich, and JRD Printpack. The group also have a separate subsidiary named Dhariwal Industries Ltd. Regarding wind energy solutions; the group is able to generate about 30 MW electricity from its 92 windmills at Satara (Maharashtra) and Porbandar (Gujarat).

The famous Pan Masala brand "Pan Parag" by Kothari group is seeing its third generation as Shri Mitesh Kothari has been graduated from Buckingham University (U.K.) and has diversified his business into Zarda, coconut oil, detergent, mineral water, real estate, 'manufacturing precious equipments & spares for aviation', and wind energy sectors. The shares of Kothari group are being traded in the Mumbai Stock exchange and National stock exchange. The group has also been awarded Assocham award i.e. Associated Chambers of Commerce and Industry of U.P.

Similarly TRD group has also ventured into Real estate sector. The diversified business portfolios of tobacco industries make them even more vital, secure, and immortal.

Although the tobacco industry is widely criticised for selling products which are harmful for health; the annual turn-over of these companies touch the figures in billions of Rupees. For example Kuber group has disclosed (on website) its annual sales to be around 2 billion Rupees. DS group has also disclosed (on website) its annual turnover to be approximately 77 billion. Thus to safeguard themselves; these companies also invest into CSR (Corporate Social Responsibilities) activities. For example, Shikhar group runs 'Glory Public School' in Delhi since 2008 under the aegis of a trust "Lakshmi Shiksha Society". Similarly TRDP Trust has been founded in 1999 by TRDP Tobacco Company and the trust operates 'Dharamshala' at holy places like Haridwar in Uttaranchal and Punjab. Further the group

gives donations to hospitals. Thus tobacco industry always tries to be in good books of government and citizens. But sometimes it comes in news for all the naughty reasons.

Recently the Kamla Pasand firm was in news when its employees ransacked an Australian cruise ship (The Week, October 05, 2018). About 1300 employees of Kamla Pasand tobacco firm went on a 'wild work bender' on a three day September cruise on the voyager of the seas. They end up creating ruckus there, "taking over the ship's pool decks and bars. The group went into frenzy as burlesque dancers and scantily clad women dressed as playboy bunnies were brought on board by the group. The situation became so bad that families had to take refuge in their rooms and the 'Royal Carribean International' had to hand out apologies and the refunds to the 'distraught passengers' (The Week, October 5, 2018).

The owner of Kamla Pasand tobacco firm is Mr Kamla Kant Chaurasiya who belongs to 'Feelkhana', Kanpur (Amar Ujala, April 08, 2017). During 1980s, he used to sell loose Pan Masala on footpaths of Gumti. Today he runs a billion dollar business. In the beginning he only ventured into the Gutkha business, but now he has diversified into several other businesses. On 06 April 2017, Central Excise Team raided one of its franchiser in Kanpur and arrested him for not paying 147 crores of excise duty (Amar Ujala, April 08, 2017).

Mr Kamla Kant Chaurasiya in 1985, started manufacturing Pan Masala at home. He used to sell it at 'Kahu Kothi' at 'Gumti'. Soon several brands were launched. In 2000 he launched 'Rajshree Gutkha' which became very popular throughout the country. Then he ventured into real estate and steel business, which were also successful. He still has his office at 'Lal Fatak', 'Naya Ganj' in Kanpur (Amar Ujala, April 08, 2017).

Central Excise team in 2017 has also raided steel businessman of Kamla Pasand Group, Mr Yogesh Agarwal for not paying more than 250 Crores of excise duty. But he soon got bail. Moreover police arrested one of its Pan Masala factory owner Sumit Agarwal who was running this factory at 'Kidwai Nagar' Kanpur without any registration (Amar Ujala, April 08, 2017).

The chain of intermediaries –

Company give to distributors, who supply to wholesalers, then salesman take from them and give to retailers and vendors. Retailers and Vendors also take directly from wholesalers.

Naya Bans Sarv Vyapar Association –

Naya Bans Sarv Vyapar Association is an association of wholesalers of smokeless tobacco and related tobacco products having their shops at 'Naya Bans' area near 'Khari Bawli' at Fatehpuri, Chandni Chowk, Delhi. 'Naya Bans' is the only wholesale market of smokeless tobacco and related tobacco products in Delhi. The market has been in existence since 1925 and has passed about 4-5 generations in the same business. The wholesalers in this market pass-on the products to retailers and distributors from all over India. The wholesalers in the market do not sell directly to end-users of the product and do not sell in small quantity or open/ loose packets. They only sell in bulk. The members of the association are registered with the Department of Sales tax and have got licences for conducting the business. There are around 80-100 shops in the area that sell smokeless tobacco and related tobacco products. They have high turn-overs due to sale of large volumes at the margin of around 10-15 percent.

Attitude and beliefs of wholesalers regarding smokeless tobacco –

The respondents believed that smokeless tobacco is a medicine both in Ayurveda and Unani. It is also good for digestion and prevents worms and also dental caries. The respondents believed that 'Chuna' in Paan is a source of Calcium. Elaichi in Paan is good for digestion and also give fragrance. The respondents argued that all the research which shows smokeless tobacco as harmful, is baseless, and there is no such research which can prove that cancer in those studies was caused only due to tobacco but no other reason. The respondents also argued that there were no harmful effects during Mughal period and the tobacco is in use since centuries; then how during this decade all of sudden it became so harmful [Interview at Naya Bans, New Delhi during May 2017].

The wholesalers completely denied that smokeless tobacco has any harmful effects. Rather they argued for its religious and medicinal importance. They maintained that smokeless

tobacco is good for health. The respondents maintain that all these research and anti-tobacco activities is part of a conspiracy. Smokeless tobacco industry is an indigenous industry and multinational companies are not allowed to introduce their smokeless tobacco products in India. The NRIs are not allowed to do tobacco agriculture in India. Also Indians prefer smokeless tobacco instead of cigarettes. Therefore these multinational cigarette companies have bribed the Indian Government officials as well as NGOs to ban smokeless tobacco; so that the cigarette business of MNCs can flourish in India [Interview at Naya Bans, New Delhi during May 2017].

The respondents further said that about 7-8 crore people are associated with smokeless tobacco industry. These include tobacco farmers, perfume industry, kaththa industry, wholesalers, retailers and vendors of smokeless tobacco. The perfume for smokeless tobacco is manufactured in Kannauj, U.P [Interview at Naya Bans, New Delhi during May 2017].

The smokeless tobacco companies are generally owned by the Baniya caste among Hindus. The wholesalers of smokeless tobacco are mostly Brahmins among Hindus and that too 'Chaurasiya' mostly. Muslims are also involved in the business of smokeless tobacco and most of them are salesmen and vendors [Interview at Naya Bans, New Delhi during May 2017].

The business is not so profitable for wholesalers. The respondents maintained that they are able to earn, between 20,000 and 30,000 per month, from this business; and are able to live a middle class life through this income. The respondents further asserted that the profit in this business has sharply declined after the government imposed ban on smokeless tobacco. The ban is also there in Delhi but they are fighting legal case in Delhi high court. The business is running as usual but the wholesalers don't display their tobacco products. They are very much threatened and fearful [Interview at Naya Bans, New Delhi during May 2017].

Litigations filed by wholesalers –

Tobacco companies also ask wholesalers, retailers and vendors to write letters, sign petitions and file court cases against tobacco control activities. Thus big tobacco companies use these middle-men as shield against any tobacco control effort.

‘Naya Bans Sarv Vyapar Association’ has filed 3 court cases against Union of India. First case was filed in 2012 in high court of Delhi. In this petition, wholesalers challenged certain provisions of COTPA (Cigarettes and Other Tobacco Products Act) which banned the selling of tobacco products within 100 yards of any educational institution. The wholesalers demanded exclusion of wholesale trade from law. The court dismissed the petition and imposed fine of Rs 20,000 on each petitioner to be paid to central or state government towards tobacco control activities. The association challenged the judgement in Supreme Court in 2013. In this judgement, the Supreme Court allowed the association to operate within 100 yards area but only after 2 pm; whereas retail sale was not allowed. The decision was further modified in 2014 by changing the time of business to after 4 pm instead of 2 pm.

Vendors of smokeless tobacco –

Vendors and salesman are generally illiterate and have learned no other earning skills apart from selling tobacco and thus not in a position to shift to some other livelihood. Vendors, salesman or their fathers have migrated from villages after leaving agriculture over there and came into this business. If government ban tobacco, they plan to go back to village and join agriculture. Vendors are under the impression that, for a brief period smokeless tobacco was banned by government and now there is no such ban [Interview at Munirka, New Delhi during Feb. 2017].

Companies generally provide counters to tobacco vendors, and thus paste their advertisement posters on it. This is called "point-of-sale advertisement". Due to this reason, sometimes vendors are unable to put mandatory warnings on their counters. i.e. "Sale to persons below 18 years of age is prohibited". Most of the promotional schemes and favours are enjoyed by the wholesalers, and such favours are not passed on to salesmen and vendors [Interview at Munirka, New Delhi during Feb. 2017].

Regarding various kinds of smokeless products; the two types of pouches are available. Small ones for 5-6 Rupees and bigger one for 11-12 Rupees. The smokeless tobacco is also available in Cans; the vendors generally put them in Paan (betel quid). The vendors generally have a margin of 1.00 Rupee on one pouch. The salesman has a margin of 5.00 to

10.00 Rupees on one wholesale packet containing about 15 pouches [Interview at Munirka, New Delhi during Feb. 2017].

Conclusion

Thus although owners of SLT companies are billionaires, profits do not pass down to tobacco vendors. Tobacco vendors still live marginally. At the same time Governments are also neglecting this issue of providing alternative livelihoods to tobacco vendors. If Governments continue with the Gutkha ban, the owners of SLT companies will be least affected as they have diversified to other businesses which are flourishing irrespective of tobacco business. The people who are getting most affected by such bans are tobacco vendors, retailers and wholesalers. As we have seen that wholesalers are running this business since generations, it would be difficult for them to switch to another business overnight. Similarly the entire income of Pan Vendors depends on tobacco as their customers prefer Pan with tobacco. They will certainly be left in lurch with such bans.

Thus it becomes important to plan for some alternative livelihoods for these stakeholders. When we study their lives in depth, it becomes difficult to ignore vulnerability of their existence. Thus while making policies; we can't leave these people to fend for them. This issue has been discussed in detail in a later chapter on policy.

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Chapter 7 –

Market Strategies of Smokeless Tobacco Industry

Market Strategies of Smokeless Tobacco Industry as a Determinant of Smokeless Tobacco use among Indian Population

It is important to study market strategies of smokeless tobacco industry, as discussed earlier during conceptualisation of study. Tobacco industry is the spider in the web of causation of diseases with tobacco use at one end. The marketing strategies of SLT industry influence individuals' choices regarding tobacco use. The industry keeps launching newer and newer products especially targeting adolescents and making them nicotine dependent. The industry also has enormous resources to invest in marketing their products; both locally as well as at national and global levels. This in turn gives high returns which are invested further in the business. This becomes the cycle of prosperity for the tobacco barons as their profits increase exponentially.

Baba (launched by DS Group in 1964) was the nation's first branded chewing tobacco (ds group, Internet). Prior to that 'Quality' chewing tobacco was launched in 1948 (ibid). DS Group was first to launch branded chewing tobacco in Tin metal packaging (ibid). After that in August 1973, 'Pan Parag' was launched by Kothari products (panparag, Internet). It was also packed in tins of 100gm or more. Products by same brand name and same package design were available in two types, one with tobacco and the other without tobacco. Premixed products packed in large tins were the first branded products in this category. This led to the rise of the new readymade Pan Masala industry. By the 1980s several new players entered the market. Smokeless tobacco (SLT) users could now buy and store the readymade preparations and they no longer had to make frequent trips to the vendors. Thus, one of the important marketing strategies of SLT companies was product positioning where they tried to cater to both rich as well as poor segments of population. The new tins of areca-nut based tobacco preparations were positioned as luxury products having high prices based on the claims of high quality.

Figure 7.1 – Pictures showing types of packaging (tin metal packaging and sachet packaging) of smokeless tobacco products.



In 1980s only one nationalised radio station and television channel was available, that too having reach to very low percentage of the population. Therefore the advertising of SLT products was limited to outdoor media, print media or other traditional media (Mukhopadhyay & Ramakrishnan, 2017). Also a large proportion of market was made up of Pan Vendors, which themselves served as a source of point of sale advertisements. The manufacturers also began to advertise Pan Masala through Television. The product sold well among the class of people in cities who had Television and could afford luxuries. This explosion of SLT promotion coincided with the advent of national transmission of television in 1982 (ibid).

There was a need for SLT to cater to large middle class and lower-middle class; and so they launched low-priced pouches or sachets of Pan Masala with tobacco. Pan-Parag sachets were first to be launched in 1985. Thus they positioned their products for both rich as well as working classes of society. Pan-Parag soon became very popular among middle class households; with its availability in portion-sized packages; as it came within the financial reach of most potential consumers. The revolutionary success of Pan Parag soon spurred imitators to step into product differentiation with new products including Pan Masala (usually without tobacco), Gutkha (with tobacco), Zarda and other similar tobacco products, to be marketed in single-portion sachets. Now several portion pouches are available according to the money customer wants to spend. For example RMD Gutkha is available in 1.5 gm, 2 gm, 3.5 gm and 4gm pouches. Also RMD zarda is available in 7 gm pouch (Manikchand group, Internet).

Figure 7.2 – Pictures showing Pan Parag TV advertisement – “Baaratiyon ka Swagat Pan Parag se Kijiye”.



The behaviour of industry also depends upon behaviour of its customers. The industry spends a lot in understanding the behaviour of end consumers, and there is a constant ‘dynamism’ or ‘diversity’ in purchasing decisions of customers (MacKenzie & Collins, 2003). A sagacious marketer knows that he needs to introduce newer and newer products to be in line with dynamic marketing environment. Thus tobacco manufacturers also experimented by adding new flavours and fragrances to their products as a marketing strategy. DS Group launched several related products between 1964 and 1990 – Baba, Tansen Pan Masala, Tulsi Zarda, Rajnigandha Pan Masala and Tulsi mix. It also launched Saffron flavoured chewing tobacco (ds group, Internet). ‘Dilbagh Group’ also launched saffron blended, ‘Dilbagh Talab Pan Masala’ (dilbagh group, Internet). In 1979, DS Group launched Tulsi Zarda and in 1990 Tulsi mix was launched. The DS Group on its website, claims to be the “only chewing tobacco company in India to get ISO 9001: 2000 certification”, thus claims its products to be of superior quality (ds group, Internet).

Figure 7.3 – Pictures showing flavoured smokeless tobacco products (Tulsi, Rajnigandha and Tansen by DS Group; and Talab by Dilbagh Group)



SLT companies also started venturing in to mouth-fresheners and many of these mouth-fresheners had same brand name as that of tobacco products. For example, DS Group in 2002 launched ‘Baba Elaichi’ and ‘Baba Supari’. Vimal group also launched ‘Vimal Elaichi’ which is saffron-blended. Manikchand group launched ‘Calcutta Meetha Pan’. Thus surrogate marketing/ advertisements were possible and are in practice till now.

Figure 7.4 – Pictures showing mouth-freshners (Supari and Elaichi) having same packaging as that of tobacco products and thus making them legitimate for advertising.



Several SLT companies came up in 1980s. The SLT companies came up with different kinds of SLT products. Scents, Perfumes and Flavours were added to the products as a marketing technique. For example, Kuber group launched ‘Scented Kuber Khaini’, ‘Gulab Bahar Gutkha’, ‘Safari Gold Gutkha’ and ‘Extra-strong scented Kuber Khaini’.

Figure 7.5 Pictures showing surrogate advertisements of tobacco products endorsed by celebrities.



The SLT companies also encashed on, claiming some of their products as milder or harmless products. Just like cigarettes they added the word ‘Filter’ to their products to get perceived as less harmful. An example is launch of ‘Wiz Filter Khaini’ by Kuber group and ‘Shikhar Tip-Top Filter Khaini’ by Shikhar group. Drug testing laboratories have shown that tobacco products that mention “0% tobacco” on them (such as Pan Masala), have nicotine in them (Reddy and Ali, 2008).

Figure 7.6 – Pictures showing tobacco products using the word ‘Filter’ to show their products as less harmful.



Some SLT companies are now venturing into E-cigarettes to project themselves as good companies caring about health of their customers. This also gives them opportunity to market their products as safe products. For example, Shikhar group or Trimurti fragrances Pvt. Ltd has come up with Shikhar E-cigarettes (Shikhargroup, Internet).

Figure 7.7 – Picture showing E-Cigarette by Shikhar Group



The SLT companies also experimented by adding marketing words like ‘Plus’ and ‘Ultra’ and thus providing their customers a range of products to choose from. For example, Wizard fragrances have products like ‘Shudh Plus’, ‘Shudh Plus Ultra’, ‘Amrit Plus’, and ‘Remix’ etc (Wizard Fragrances, Internet). Shikhar group have a special product for export called, ‘Shikhar Royale’.

Figure 7.8 – Pictures of Smokeless tobacco products using marketing words like ‘Plus’ and ‘Remix’.



Packaging of tobacco products also evolved with time. Almost all big SLT companies adopted automated packaging. RMD group (Rasiklal Manikchand Dhariwal) or Manikchand group was the first to market their products as being packed in Vacuum sealed pouches and thus to be perceived as good quality products (Manikchand group, Internet). Similarly ‘Ganesh Zarda’ on its website claims that they use an exclusive packaging technique which helps preserve colour, flavour and fragrance. They also have a product in Zipper package which is supposed to lock the aroma and taste inside (Ganesh Zarda, Internet). Also SLT companies widely market their single-use packets by writing words like ‘fresh’ on these packets to attract customers. Moreover they do not list ingredients on these packets, which violate packaging laws for food products (Mukhopadhyay and Ramakrishnan, 2017).

Figure 7.9 – Pictures of Smokeless Tobacco Products having Zipper Packaging.



In 1991, broadcasting was opened to private and foreign television channels. SLT companies encashed this opportunity and widely advertised through print and electronic media. There was a huge increase in their customer base. From 1970s till 2000; the industry registered phenomenal growth, about 25-30 percent per year (Mukhopadhyay & Ramakrishnan, 2017).

In 2009, the Cable Television Networks Rules, 1994 were amended to prohibit advertisements of tobacco and alcohol on television (See: The Cable Television Networks Rules, 1994). In response, the SLT manufacturers began to advertise Pan Masala not containing tobacco which was marketed under the same brand name as that containing tobacco and the packaging was also similar. However the rule explicitly prohibited indirect advertisement as well, but the loopholes were easily evaded.

The SLT industry experienced intense growth in a period between 1999 and 2009. During this period, retail volume sales increased by 82 percent (Mukhopadhyay & Ramakrishnan, 2017).

The Government enacted the “Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act (COTPA)”, in 2003. “The provisions under the act included prohibition of smoking in public places, prohibition of advertisements of tobacco products, prohibition on sale of tobacco products to and by minors (persons below 18 years), ban on sale of

tobacco products within 100 yards of all educational institutions and mandatory display of pictorial health warnings on tobacco products packages” (COTPA, 2003).

The law pertaining to pictorial warnings on tobacco products packages was implemented with effect from 31st May 2009. Despite this act, the surrogate advertisements of SLT products continued. These advertisements used very catchy tag lines to attract their customers.

Generally they cash on traditional values of Indians. ‘Pan Parag’ is very much known for ‘Baaratiyon ka swagat Pan Parag se kijiye’. Now in 2018, they are again reminding their customers that, ‘Baaratiyon ka swagat to Pan Parag se hi hota hai’. Similarly Vimal Gutka claims that each grain of their Gutka contains the aroma of saffron, “Dana Dane mein hai Kesar ka dum”, and Kesar is the most expensive spice in the world and has been used traditionally to enhance the colour and flavour of food preparations. On the parallel lines, Rajnigandha is advertised as, “Bemisaal flavour, Lajawab swad”.

RMD Pan Masala is advertised as, “Unche log, Unchi Pasand, Manikchand” which gives a false message that eating Pan Masala and Gutkha is something royal or high class. Similarly Rajnigandha Pearls use the slogan, “Achchai ki ek alag chamak hoti hai”, which again gives a false message that only good high class people eat their products. Moreover DS group is doing lots of CSR activities to project themselves as a good company and so their products.

Figure 7.10 – Pictures showing celebrity endorsed advertisements of Smokeless Tobacco Products having tag lines projecting them as high class products.



Trade Marks Act of 1999 allows a particular trade-mark to be registered under different categories (Trade Marks Act, 1999). Many tobacco brands and trademarks registered under class 34 of the Act, are also registered under non-tobacco categories such as food and clothing. The act also allows the company to advertise the same brand name for a non-tobacco product such as Pan Masala. Thus, encashing on this loophole, almost all the SLT companies have same brand name and packaging for tobacco product as well as Pan Masala product. For example Shikhar Gutkha and Shikhar Pan Masala have same packaging and brand name. The advertisement is done for Pan Masala and Gutkha is promoted automatically. Other examples include, Chaini Khaini and Chaini Pan Masala, RMD Gutkha and RMD Pan Masala, Tulsi Zarda and Tulsi Pan Masala, Baba chewing tobacco and Baba Pan Masala.

The effect of surrogate advertisements was shown in a study by Chaturvedi et al in 2002, where he studied 986 rural school children aged 10-15 years. The study showed that most children perceived Gutka as a mouthfreshner and also a status symbol. These children were unaware of any harmful health consequences of Gutka, although they perceived Khaini and Zarda as harmful tobacco products. Another study conducted by a Mumbai-based NGO found that 77 percent of Mumbai teenagers could recall a Gutkha/ Pan Masala advertisement. Moreover 70 percent of teenagers could recall the full slogan of an advertisement for Manikchand Pan Masala/ Gutkha (International Agency on Tobacco and Health, 2004).

Brand stretching also involves CSR (Corporate Social Responsibility) campaigns, cultural events and sponsorships by tobacco companies. Companies Act 2013 says that any company can do CSR. Now this act is exploited by tobacco companies and they are doing CSR in schools and are targeting young children. For e.g. Classmate (ITC) Olympiad Handwriting Competition.

Some examples of sponsorships by tobacco companies include Manikchand Filmfare Awards until 2007, and the Kamla Pasand Max Stardust Award 2013. Also 'Rajnigandha Pearls' by DS Group was a co-sponsor of Femina Miss India 2017. When 'Manushi Chhillar' of India was crowned 'Miss World'; DS Group immediately cashed on this opportunity by advertising its product in newspapers along with photograph of Manushi, congratulating her on the success she achieved and putting its tag line, "Achchai ki ek alag chamak hoti hai", thus projecting itself as a world class good company having products

used by elite-class. Rajnigandha also sponsored 'Times Litfest' held in Delhi during 25-26 November 2017. Thus DS group being largest SLT company has been actively participating in all Social and Corporate events and thus indirectly advertising its products.

Figure 7.11 – Advertisement of Femina Miss India 2017 co-sponsored by Rajnigandha Pearls (A surrogate product of DS Group).



Figure 7.12 – Advertisement by DS Group, congratulating Femina Miss India 2017 winner and using her photograph as an advertisement for its surrogate product.



Figure 7.13 – Pictures showing Times of India Litfest 2017 being co-sponsored by DS Group.



Indirect advertisements are also done through billboards, buses, TV, Radio, banners at community festivals and regional media. According to a study conducted by Salaam Bombay Foundation during Ganesh Chaturthi in 2010, the Mumbai city was flooded with surrogate advertisements in Pandals, at bus stops and on buses (Sethi, 2011). Another study conducted by Indian Cancer society in 2004-05, found that annual cost of advertising for Pan Parag Pan Masala was more than its annual sale value, indicating these ads to be surrogate ads for the tobacco containing product of the same brand (Sushma et al, 2005). Another study conducted by the ‘Voluntary Health Association of India’ (VHAI) revealed that for most of the brands having Gutkha as well as Pan Masala by the same name; only Gutkha was available at the retail shops and very negligible quantities of Pan Masala was available (Mukhopadhyay & Ramakrishnan, 2017).

The latest COTPA Rules on section 5 of the act, limit point of sale advertising to just listing of generic names along with health warnings. However these rules are overtly flouted. The boards, podiums and desks of tobacco vendors are placed by tobacco companies themselves and so the companies advertise their products on these boards. Thus it is easily observable at Pan Shops that they display company sponsored boards with no health warnings, or health warnings written in very small fonts. Thus all kinds of danglers, display racks, boxes and stickers are visible at tobacco/ Pan shops; which easily flaunt

tobacco control laws and rules. Such displays particularly attract children and youth who visit these shops to buy chips, biscuits, candies and soft-drinks.

Tobacco industry interferes in the regulation of Tobacco Advertising Promotion and Sponsorship (TAPS) in India. The cigarettes act 1975 mandates display of textual health warnings on print advertisement of cigarette brands. PIL against a television programme ‘made for each other’ by a civil society ‘VOICE’ (early 70s). The petitioner lost the litigation in the Supreme Court. During 1990s, the tobacco industry began to sponsor sports and cultural activities (Wills, Gold Flake, Four Square and Classic sponsored Indian cricket team and tennis) as part of their marketing strategies. After the ITC sponsorship to the Indian Cricket team in 1996 World cup, the VHAI filed a petition in the Delhi High court seeking a ban. ITC withdrew its sponsorship. The sponsorship of such events was banned during the early 2000s after PILs from civil society, and implementation of Cigarettes and Other Tobacco Products Act (COTPA), 2003. In 2005, the tobacco industry filed a lawsuit against the government in particular to the provisions regulating on point of sales advertisements and indirect advertisements. High court of Bombay stayed the implementation of this provision in the year 2005. The point of sale regulations was not implemented until the year 2013. Civil society organisation challenged this order in the year 2012 in the Supreme Court of India. The Hon’ble Supreme Court vacated the Bombay HC stay order. In 2017, few instances of the tobacco industry distributing free cigarette sticks to youth were documented. The industry also paid the tobacco kiosk vendors to put up advertisement board.

My Key Informants from tobacco control, almost all of them, said that COTPA is insufficient to control marketing tactics of SLT. There are many loopholes and industry takes advantage of that in the form of ‘point of sale’ advertisements and surrogate advertisements. In the words of Dr Rana,

“Now, you ask me what the gaps in TAPS ban are. One is point of sale board which has been allowed. Although it is a very small board, not with the brand name, but it is still there. That we can display a small board with white background, black text, and that mentioning only the products, that Gutkha, Khaini, Bidi, cigarette is available here. Not the Fore-Square, Red & White or brands. That board is now misutilised by the tobacco companies.” [Interview at The Union Office, New Delhi on 15 June 2018]

The indirect tobacco advertisements are also seen on public properties such as buses, railways, overbridges, Delhi metro hoardings and parking lots. Gutka is also found on sale on trains along with toys and eatables. Moreover it has been found in Rural areas, that industry distributes incentives in the form of accessory items like calendars, kites, mobile phone covers, playing cards and match boxes having packet image and logo of their product. Some You-tube videos from a road show in Balasore, Orissa has shown that Godfrey Philips market their product Pan Vilas Pan Masala through mobile vehicles fitted with loudspeakers that stop periodically and offer free samples to people and also talk to them to promote their product.

The YouTube links below show footage from a road show in Balasore, Orissa, and sale of gutka on trains:

1. <http://www.youtube.com/watch?v=ck7ZVji0g7k>, –link on Pan Vilas Roadshow in Balasore, [Accessed 11 Jan, 2018]
2. <http://www.youtube.com/watch?v=hYGB0jmEoEU&feature=related>, – featuring sale of gutka on trains. [Accessed 11 Jan, 2018]

Moreover You tube videos of “Gutkha Bhai” are getting famous where the singer sings with Gutkha in his mouth. Now that singer is working with “Tony Kakkar”.

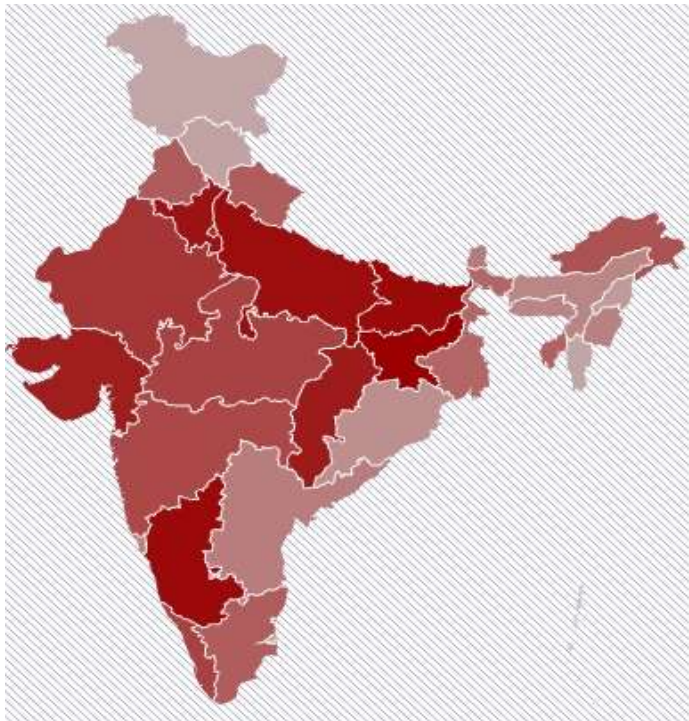
SLT marketing is also very much directed towards youth. Pan Parag uses the tag line, ‘Choice of Young India’ on their tins as well as on pouches. Shudh Plus or Wizard fragrances used the tag line, ‘Yuva logon ki damdaar pasand’. Moreover SLT products are displayed on shops along with candies, cold-drinks, chips, biscuits; thus exposing kids and adolescents to pro-tobacco environment. The tobacco products are also marketed widely on social media such as Face-book and You-tube to attract youth. Research has shown that several SLT brands such as Pan Vilas, Chaini Khaini and Goa Gutka have face-book accounts that are open for members and allow participation and discussion platforms for promotion. On such platforms they can easily show advertisements for social marketing that are banned on TV, radio and print media (Jackler et al, 2019).

On December 2010, the Supreme Court directed the Ministry of Environment to restrain SLT manufacturers from using plastic material in the sachets of their products including Gutka and Pan Masala; under the Environment Protection Act, 1986; as the plastic sachets were contributing to non-biodegradable litter. The directions came into force on 1 March,

2011 (Mukhopadhyay & Ramakrishnan, 2017). A study conducted by VHAI in late 2011 showed that the Plastic Waste and Management Act was widely violated and the SLT manufacturers were using multilayer packaging, having one layer of plastic along with top layers of paper. However the new packaging material still reduced the shelf-life of SLT products (VHAI, 2011).

According to GATS India 2016-17, overall 20.5 percent of adults noticed any type of smokeless tobacco advertisement or promotion in the preceding 30 days. Moreover 24.3 percent of smokeless tobacco users noticed any type of smokeless tobacco promotion. Further 10.7 percent of SLT users noticed SLT advertisement at point of sale; and 7.7 percent of non-users noticed point of sale SLT advertisement (GATS India 2016-17). The following map shows the percentage distribution of individuals across Indian states who noticed any advertisement or promotion of tobacco (according to GATS 2 data).

Map 7.1 – Choropleth Map showing relative distribution of individuals across Indian states who noticed any advertisement or promotion of tobacco products (according to GATS 2 data).



Source of Data - GATS India (2016-17). Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. ISBN : 978-81-937917-0-7. Available from, http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018.pdf.

It could be seen that exposure to SLT advertisements or promotions is somewhat homogenous throughout India. Surprisingly this exposure is relatively less in north-eastern parts of India whereas prevalence of SLT use is relatively more in these parts of India.

One of the important marketing strategy of SLT companies is to encash on traditional and religious sentiments of people. During Indian festivals, the companies produce special packs with attractive designs and aggressive marketing is done especially through print ads. The companies wish Happy Diwali, Shubh Navratras, Happy Holi, Eid Mubarak through print ads in newspapers. For e.g. 26 October 2011 issue of Dainik Bhaskar had a quarter page ad of Jafri brand Pan Masala wishing its readers a Happy Diwali. In the same issue Vimal Pan Masala also wished its readers ‘Damdaar Shubh Kamnayein’. Recently, first March 2018 edition of Times of India as well as Economic Times had front half page advertisement of “Vimal Elaichi” wishing its readers “Happy Holi”. Similarly Newspapers of 15th August 2018 had front half page ad of ‘Vimal Elaichi’ wishing its readers “Dil Mein Sajao Aajadi ke rang” thus associating its products with a sense of freedom.

Figure 7.14 – Pictures showing surrogate advertisements of Smokeless Tobacco Products on the occasions of religious and national festivals.







SLT companies also use market segmentation as a strategy in their campaigns. For example, traditionally SLT pouches were widely considered as poor man's tobacco; but during 1980s tobacco companies started using celebrity endorsements through actors including Jalal Agha, Ashok Kumar and Shammi Kapoor. In 2014; Manoj Bajpai, Sanjay Dutt, Malaika Arora and Fardeen Khan endorsed Pan Vilas, Goa, Chaini Chaini and Baba brands. The slogans of these ads included 'Shauq badi cheez hai' and 'chain se maza lo' which projected these products as stylish, glamorous and high class. Rajnigandha silver pearls ad starring Priyanka Chopra also creates similar illusion by its catchy slogan, "Achchai ki ek alag chamak hoti hai".

Cigarette manufacturing companies such as Godfrey Phillips are also venturing into SLT market. Godfrey Phillips in 2010 launched Pan Vilas Pan Masala and claimed it to be "India's first Pan Masala which is fully compliant with Prevention of Food Adulteration (PFA) Rules" (Godfrey Phillips Website).

Another advantage in SLT marketing is that no license is required to sell tobacco and thus it is available everywhere: at grocery shops, petty shops, pan shops, street corners, juice corners, community markets, canteens, shopping centres, outside government offices, at bus stops etc. Thus it is very easy to buy SLT pouch anywhere in India. According to Mr Amit Yadav (Tobacco Control Advocate),

"It is easier to regulate smoking industry because it is an organised industry. It is easier to tax them. And it is a licensed product. License is given to manufacture cigarettes that how much cigarettes you can manufacture. There is no license for SLT..... They only have to register that particular brand. They have to take permit to sell their product. They have to take some clearances. But how much they have to make, they decide themselves.... For cigarettes license is given that this year your company will manufacture, say 20 lakhs or 50 lakhs sticks of cigarettes. You can manufacture only that much. That too you have to take license in advance. SLT have to take permit for opening their shops; other clearances like fire permit, police clearance, all these....I will manufacture and sell SLT products from tomorrow. That I can decide right now. But I can't decide for cigarettes." [Interview at NICPR, Noida on 22 October 2018]

GATS India 2009-10 showed that 55 percent of SLT users purchased it from store, 32 percent from Kiosks and 10 percent from a street vendor (Gats India 2009-10). GATS 2 also showed similar results where 55.6 percent of SLT users purchased it from store, 35.8 percent of SLT users purchased it from Kiosk/ Paan shop and 6.8 percent of SLT users

purchased it from street vendor. Moreover 60.4 percent of SLT users aged 15-17 years purchased it from stores which is a matter of concern; as selling tobacco to minors is prohibited. Further 28.8 percent of SLT users aged 15-17 years purchased it from Kiosk/ Paan shop (Gats India 2016-17).

SLT companies innovated very interesting marketing strategies after Gutkha ban under the FSSA (Food Safety and Standards Act) 2006 which came into force in August 2011. At first the Gutka ban was implemented in Madhya Pradesh and Maharashtra and the tobacco shops in the states were raided and forced to shut down; as an escape strategy the manufacturers shifted their production base to nearby states where the ban was not yet enforced. Another escape strategy was to shift to small-scale operations.

VHAI conducted a rapid impact assessment which revealed that although supply of tobacco products was significantly affected; the mechanisms of supply were changed as the marketing executives were making discreet visits to retailers and were delivering the wrapped products secretly in the absence of many people around (VHAI, 2012). The retailers also revealed that the products were coming from UP and Gujarat where the factories have been relocated after the ban. Moreover retailers used to keep the Gutkha stocks close to them on the kiosk desk and hide them easily in case of any raid by higher authorities. Retailers also ensured that they sold Gutkha products only to regular customers.

Most of the Gutka companies have introduced separate sachets of chewing tobacco and Pan Masala to be mixed by customers before using them. At many times the advertisements also reflect this. For example, an advertisement for Shudh Pan Masala on 93.5 Red FM mentions “Shudh Pan Masala ab chotu ke saath”; chotu refers to a smaller pouch of chewing tobacco to be sold loose with Pan Masala.

According to Outlook Business India, “Local vendors point out that the DS Group sells Rajnigandha Pan Masala paired with sachets of Tulsi tobacco” (Kakkar, 2013, Internet).

The new packaging has increased the packaging costs. In addition to this, the companies have to pay bribes to the retailers and distributors. As a result the prices of SLT products have shot up by 200 percent to 300 percent.

First Feb 2013 edition of Deccan chronicle mentioned telemarketing and home delivery of SLT products in Andhra Pradesh. From urban warehouses the companies have relocated

their stocks to outskirts and developed telemarketing as an alternative marketing technique (Garari, 2013).

Following the Gutka ban, advertisements questioning SLT ban were released jointly by Smokeless Tobacco Association (STA), Central Arecanut and Cocoa marketing and processing co-operation Ltd., and the All India Kattha Factories Association. This strategy aimed to scuttle the FSSAI notification and to create confusion in the states that had not yet implemented the ban.

The marketing also involves targeting international markets. SLT companies participate in international trade fairs advertising their products. They invite international business partners and offer complete customisation of product for them, such as customised brand name and customised packaging (Shikhar group, Internet). They also give promotional material like posters, danglers, stickers, pens and diaries in each master carton.

Dr Jagdish Kaur from WHO Tobacco Free Initiatives said that tobacco industry is coming up with newer and newer products, which is a major challenge. In her own words,

“E-cigarettes and now they are introducing heated tobacco products which they call ‘heat not burn’. They are now in the process of introducing “Iqos”. This is a tobacco product in many Asian and European countries. That comes by various names. The government is now strictly implementing smoke-free laws. So this product does not produce smoke. You just heat it. It is heated and you smoke it. So you can use it in the public places. As the government is implementing laws, the industry comes with new products. They are also introducing various kinds of smokeless products. Like when Gutkha was banned, they introduced Pan Masala. Many brands of Pan Masala were tested and it has nicotine. They are also advertising it. The law of ban on advertisements is beaten by Pan Masala advertisements. The brand is same. Same brand is producing Pan Masala and same brand is producing Khaini and Zarda. So they are advertising their brands. When someone or kids approach kiosks for Pan Masala; then they are also given these tobacco products of same brand especially when Pan Masala is not available. So the industry is beating the very purpose of ban on tobacco advertisements. So it is a big gap. It is a loophole.

Another loophole is Point of Sale advertisement. The point of sale advertisement is allowed. The industry takes advantage. They just advertise on the kiosks. So point of sale advertisement is a big loophole. The smoking is allowed at airports in designated smoking rooms. They have a shop at International Airport T3 just outside the designated smoking room, which is unlawful. They allow designated smoking rooms at restaurants, if they have more than 30 seating capacity. Also in hotels if you have more than 30 rooms. The new Shisha bars are also coming. Youngsters are lured to Shisha bars.” [Interview at WHO SEAR Office, New Delhi on 4 June 2018].

Thus SLT industry is constantly innovating marketing strategies as well as products. They have resources to make young brains work on R and D regarding SLT products. One of the brain drains is towards marketing and industries including SLT industry. Management institutes are some of the prestigious institutes in the country having best brains as students which are taken by them through one of the most eminent entrance exams. How many of these pass outs are imbibed by tobacco industries is an area of research which needs to be explored.

Conclusion –

Thus the time period from late 1980s to the start of 21st century gave a major thrust to SLT industry. This was also the era of Liberalisation, Privatisation and Commercialisation. SLT (Smokeless Tobacco) industry readily encashed on LPG and its popularity increased manifold. There were advantageous open markets and lots of private media to advertise SLT products aggressively; and thus taking control of young minds, attracting youth towards tobacco, and encashing upon demographic dividend. The positioning and repositioning of SLT products across classes envisaged an ‘enigmatic world’ where tobacco use was actually taking a break from harsh reality. The regulations were in flux where both policies as well as SLT industry were trying to regulate each other, which is discussed in next chapter.

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Chapter 8 –

Dynamic interactions between tobacco control policies and the smokeless tobacco industry.

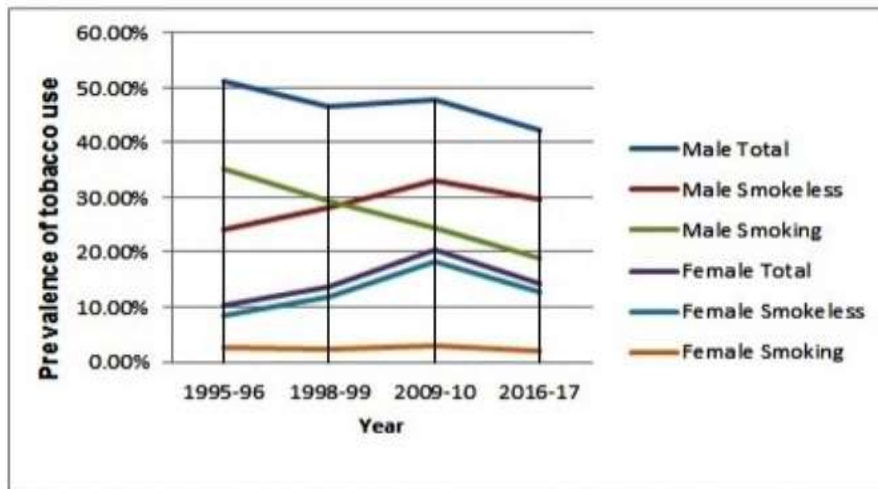
Dynamic interactions between tobacco control policies and the smokeless tobacco industry.

The study of 'tobacco control policies and the response of the tobacco industry to these policies' is central to an understanding of the positioning and response to tobacco use. The study helps us to identify the issues which have led smokeless tobacco use to its current status concerning its regulation in Indian society. By studying these interactions, we can also predict whether Indian society is heading towards greater hedonism or greater restriction concerning smokeless tobacco use. Moreover, the systems of smokeless tobacco regulation do not exist in isolation, but there exist dynamic interactions between state, legislature, vested and economic interests of various players, activism, different professional interests, and international interests.

The GATS survey 2016-17 has shown that increased regulations over time had an impact on smokeless tobacco use culture and helped to change this culture and that cultural change further opened the doors for further regulation, making it an iterative process. India is the second largest producer as well as consumer of tobacco products in the world. However the recent trends show that this may change soon; as the Global Adult Tobacco Survey- 2 showed a 6 percentage point decline in the prevalence of tobacco use among adults (>15 years) in the country (GATS 2 Survey Report).

Figure 8.1 shows that the prevalence of tobacco use (total, smoking, and smokeless) among both men and women has decreased since 2009-10 (Refer Fig. 8.1). The prevalence of total tobacco use in any form, among men, has declined from 47.9% in 2009-10 to 42.4% in 2016-17. There is a sharp decline in total tobacco use prevalence and smokeless tobacco use, among women, since 2009-10 (Refer Fig. 8.1). The prevalence of total tobacco use in any form, among women, has declined from 20.3% in 2009-10 to 14.2% in 2016-17. The prevalence of smokeless tobacco use among women has declined from 18.4% in 2009-10 to 12.8% in 2016-17. However, before 2009-10, there was a sharp rise in the prevalence of smokeless tobacco use among both men and women (Refer Fig. 8.1).

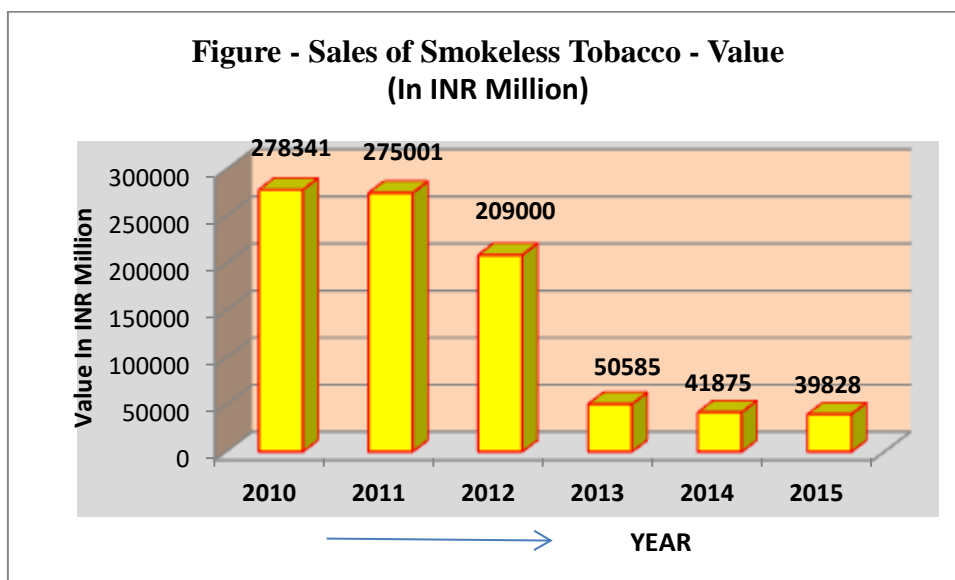
Figure 8.1 – Graph showing Trends in the prevalence of tobacco use (smoking and smokeless) in India by men and women over two decades i.e. from 1995 to 2017.



Sources of data: 1995-96 (NSSO 52nd round); 1998-99 (NFHS 2); 2009-10 (GATS 1); 2016-17 (GATS 2)

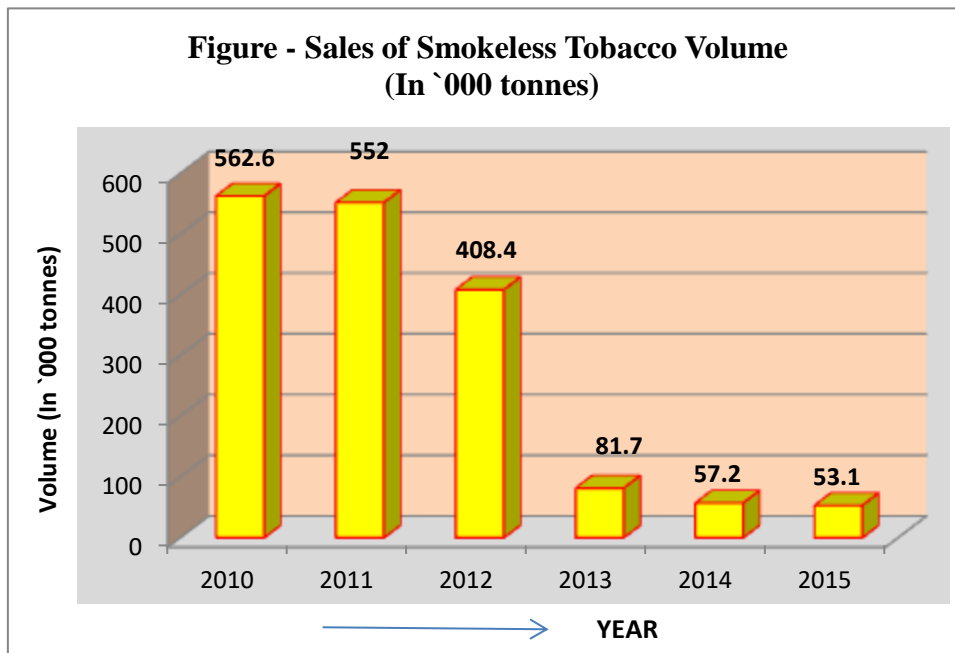
Moreover, the retail value of sales, as well as the volume of SLT products sold is also constantly decreasing since 2010 as shown in the following figures after analysis of data presented by the "Euromonitor Report" published in 2016. In other words, people are buying fewer SLT products and/or lesser numbers of people are buying SLT products.

Figure 8.2 – Graph showing Trends in the Sales of Smokeless Tobacco (Value in INR Millions) in India over a period from 2010 to 2015.



Source of Data – International Euromonitor (2016). Smokeless tobacco in india.
<http://www.euromonitor.com/smokeless-tobacco-in-india/report>,

Figure 8.3 – Graph showing Trends in the Sales of Smokeless Tobacco (Volume in ‘000 tonnes) in India over a period from 2010 to 2015.



Source of Data – International Euromonitor (2016). Smokeless tobacco in india.
<http://www.euromonitor.com/smokeless-tobacco-in-india/report>,

Thus it is evident that tobacco use in the country is declining; but as shown in chapter one, this decline is restricted to high and middle socio-economic status. The burden is shifting towards poorer sections of society. Tobacco control policies were unable to reduce the prevalence of tobacco use among the poorest of the poor (it was shown in chapter one). Even if the prevalence was reduced among highly deprived populations, this reduction was not as high as in the case of comparatively well-off populations. To understand such patterns, first of all, it is important to look at the nature of tobacco control policies historically and its dynamic interactions with the tobacco industry.

Before the start of the 21st century, almost no policy action was taken regarding smokeless tobacco use. All the tobacco control efforts were restricted to the use of cigarettes only. The use of smokeless tobacco was rather considered safe and was adopted as a method to quit cigarette smoking. Thus men and women adopted smokeless tobacco as an alternative to smoking. There were also beliefs that smokeless tobacco use has medicinal properties and is good for teeth. This was shown by the first Global Adult Tobacco Survey, in terms of the high prevalence of smokeless tobacco use among both men and women. The smokeless tobacco use among men was 32.9%, and among women was 20.3%; as of 2009-

10 GATS. Before that in 1998-99, NFHS-2 also showed a high prevalence of smokeless tobacco use among both men and women. The prevalence of smokeless tobacco use was almost equal to the smoking prevalence among men in 1998-99. The prevalence of smokeless tobacco use among women was also high in 1998-99. Here we are first talking about the overall prevalence of SLT in the country. However, the scenario will be different if we segregate the prevalence class-wise (as discussed previously). We will come to those discussions later in this chapter.

Many processes and dynamics shaped the history of smokeless tobacco control and led it to its present state. The 'interaction between the smokeless tobacco industry and tobacco control policy' is a historical process that is open-ended and is changing as we write and speak. The legislation was widely contested by the tobacco industry, but once in place, these legislations are defining new cultural norms and are detaching the tobacco from cultural acceptability.

Although the history of tobacco control is as old as the history of 'tobacco use' itself; but the regulations were restricted to only smoking forms of tobacco use. On the other hand, smokeless tobacco use was widely accepted in society, culture, religion, and policy. Smokeless tobacco use was also seen as an alternative to smoking and was also a method to quit smoking. These trends were not without reasons. During the 1960s when the evidence against smoking was getting stronger, there was virtually no evidence regarding the harmful health effects of smokeless tobacco use.

The 1964 US Surgeon General Report mentioned "... no useful mortality statistics in those who chew, snuff, or 'dip' tobacco" (pg. 74).

The 1979 Surgeon General Report mentioned, "Snuff and chewing tobacco have not been found to increase mortality (either overall or cause-specific) in the United States" (chapter 1, Pg 29). Further, it stated "... there does seem to be an association between tobacco chewing and leukoplakia and oral cancer in Asia, but it is not clear that the same risk holds in the United States due to a difference in the tobacco being chewed and to differences in the nutritional status and other characteristics of the population" (chapter 13, p. 41-42).

US Department of Health and Human Service in 1986 released the report titled, "The Health Consequences of using smokeless tobacco: A Report of the Surgeon General". As a

consequence in 1986, the first warning for SLT products was required in the United States (Kozlowski, 2018).

In India, Wahi conducted a cross-sectional study, as early as in 1968 which concluded various smokeless tobacco forms as a risk factor for Oral Cavity Cancer. Another significant study in India published in 1980 by P C Gupta and colleagues, which was a cohort study of 10,287 individuals in the Ernakulum district. It examined oral cancer among these participants annually for 10 years. The results found that the annual age-adjusted incidence rates of oral cancer were 23 per 1 lakh person-years among betel quid chewers and 32 per 1 lakh person-years in dual users. On the other hand, no case of oral cancer occurred in non-users of tobacco.

Therefore in India, as the evidence against SLT got stronger only in late 1980s, a serious legislation regarding smokeless tobacco materialized only in 1990, when under the Prevention of Food Adulteration Act (PFA) 1954, chewing tobacco was treated as a food item and it was made mandatory to display a statutory warning on chewing tobacco products that, "chewing of tobacco is injurious to health".

In a further move, under the "Drugs and Cosmetics Act 1940", the central government in 1992 banned the manufacture and sale of kinds of toothpaste and toothpowder containing tobacco (Reddy & Gupta, 2004). At that time tobacco was an important ingredient of toothpaste/toothpowder virtually in all ayurvedic preparations. When the evidence against tobacco was getting stronger, a ban on such preparations became imperative. But the manufacturers could not accept this mandate without offering any resistance. This legislation was challenged by Kastoori Udyog and others in Rajasthan High court in 1993. The court upheld the central government notification of prohibiting the use of tobacco in toothpaste/toothpowder. Further, the Hon'ble High court issued directions to the central government to appoint a committee of experts to study the use of tobacco in Pan Masala, Gutka and other products, and its effect on public health. This was the beginning of smokeless tobacco control and the seeds were sown for more tight control on products to be followed later-on.

The smokeless tobacco companies were also ready to fight for their interests. In 1997, Laxmikant from a company manufacturing toothpaste containing 4 percent tobacco challenged the central government notification in Supreme Court. The Hon'ble Supreme Court again upheld the notification issued by the Central government and affirmed that any

amount of tobacco in toothpaste or toothpowder is prohibited under the law (Yadav et al., 2017).

The evidence against smokeless tobacco was also getting stronger in the contemporary world. The International Agency for Research on Cancer (IARC) released a monograph in 1985 where it presented epidemiological evidence regarding the carcinogenic risk of betel-quid and areca-nut chewing (IARC, 1985). In 2004, the IARC classified some smokeless tobacco products (mawa, betel quid, tamol and mainpuri containing areca-nut) as Group I carcinogens (carcinogenic to humans) (IARC, 2004). In 2007, Smokeless tobacco as a whole was classified as a Group I carcinogen by IARC (International Agency for Research on Cancer) (IARC, 2007).

The time-period after 1990 was bombarded with plethora of epidemiological evidence (both Indian and foreign) regarding carcinogenic health effects of smokeless tobacco use including its various forms of usage (Chakrabarti et al., 1990, Nandakumar et al., 1990, Harish & Ravi 1995, Wasnik et al., 1998, Gupta 1999, Phukan et al., 2001, Balaram et al., 2002, Znaor et al., 2003, Rajkumar et al., 2003, Zheng et al., 2004, Boffetta et al., 2005, Phukan et al., 2005, Gupta et al., 2005, Boffetta et al., 2008, Kaushal et al., 2010, Jayalekshmi et al., 2011, Pednekar et al., 2011).

The central government started contemplating some comprehensive tobacco control legislation. The tobacco control advocates, public health professionals, and civil society also kept building pressure on governments to bring comprehensive tobacco control legislation in the country; as the debates regarding harmful health effects of chewing tobacco products other than cigarettes, heated up.

However, the serious legislative turmoil materialized during 2001 to 2003, when several states (e.g. TamilNadu, Andhra Pradesh, Maharashtra, Goa, and Bihar) used section 7 (clause 4) of the PFA to impose a blanket ban on Gutkha in the interest of Public Health (Arora & Madhu, 2012).

These state-level bans on chewing tobacco were challenged in courts by the several manufacturers and traders of Gutka. There were several grounds on which tobacco companies based their allegations. First, these bans were imposed only on chewing forms of tobacco whereas smoking forms of tobacco were allowed for sale. Second, the ban on chewing tobacco was imposed only in some states of India while these products could be

sold in other parts of the country. Thus the concerned SLT manufacturers argued that they are specifically targeted and will lose their livelihoods due to these bans.

A bench of the Supreme Court of India upheld the challenge filed by SLT manufacturers, and ruled on 2 August 2004, that the PFA provision cited by these state governments did not authorize them to prohibit Gutka or Pan Masala. Moreover, under section 23 of the PFA act, the centre alone had the power to ban SLT products. Further, section 24 of the PFA act clearly stated that rulemaking powers of the state are restricted to “matters not falling within the purview of section 23”. In other words, states could not assume powers that are restricted to the centre, as the demarcation of powers between the centre and the state was clear. The Supreme Court concluded that states had no power to ban Gutka or Paan Masala under section 7(4) of the PFA Act 1954. Concurrently Tobacco control professionals were also contemplating single legislation to cover all tobacco products.

“There was a major barrier to include all tobacco products under single legislation; as the different tobacco products fallen under the separate legislative purview of the central and state governments, in the federal structure” (Reddy & Gupta, 2004; pg 160). The cigarettes were in the concurrent list and the central governments could make legislation regarding them which was already there in the form of ‘Cigarettes Act’ of 1975. The tobacco products other than cigarettes fall under state list and thus the central government needed resolutions from at-least two state legislatures to make a comprehensive law covering all tobacco products. Subsequently, the states of Punjab, Goa, Uttar Pradesh and West Bengal passed resolutions in their state legislatures and thus authorized the central parliament to formulate comprehensive tobacco control legislation (Reddy & Gupta, 2004).

The then Prime Minister Atal Ji's Union Cabinet introduced the “Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Bill”, in February 2001, to replace the Cigarettes Act of 1975. This bill was a comprehensive bill and also covered bidis, hukkah tobacco, cigars, cheroots, pipe tobacco, chewing tobacco, Gutkha, and Pan Masala.

In 2004, the Government of India ratified the WHO Framework Convention on Tobacco Control (WHO FCTC). The WHO FCTC is a “legally binding treaty that commits Parties to the Convention to develop and implement a series of evidence-based tobacco control measures” (WHO FCTC Web).

To strengthen implementation of the “tobacco control provisions under COTPA and policies of tobacco control mandated under the WHO FCTC”, “the Government of India piloted National Tobacco Control Programme (NTCP) in 2007–2008. This was a major spring forward for the tobacco control initiatives in the country; as for the first time committed funds were made available to implement tobacco control strategies at the central, state and sub-state levels” (NTCP, MoHFW Web).

The crossroads for Smokeless tobacco was Environment Ministry's Plastic Waste (Management and Handling) Rules, 2011, that ban the use of plastic sachets for packing, storing, or selling gutka, tobacco, and pan masala. The rules came into effect from February 2011. This increased the price of Pan Masala and Gutkha for consumers. Yet, not all manufacturers followed this ban and many of them were still selling in plastic packaging. Also in the same year, Food Safety and Standards (Prohibition and restriction on sales), regulation 2011, explicitly stated that “Product not to contain any substance which may be injurious to health: Tobacco and nicotine shall not be used as ingredients in any food products.” This was central legislation in effect from August 5, 2011, and needed to be implemented through State governments. State Governments have started imposing a blanket ban on production, storage or distribution of all forms of chewing tobacco products including Zarda and Pan Masala. Supreme Court has clarified that the 2011 regulation on the ban of the sale of all forms of chewable tobacco and nicotine also includes the sale of separate pouches of Pan Masala and tobacco and has directed FSSAI to strictly enforce the ruling. But this ban on chewable tobacco has not been implemented yet as several politico-legal dynamics are working at the same time, which are discussed later in this chapter.

Contemporarily tobacco control activities were also working on other aspects of the regulation of SLT products. If we cannot ban them, at least they need to be regulated. One of the aspects of regulation was pasting pictorial health warnings on them. Global Adult Tobacco Survey India Report 2017, 62 percent of cigarette smokers and 54 % of beedi smokers thought of quitting because of warning labels on the packets, 46 % of smokeless tobacco users thought of quitting because of warning label on smokeless tobacco packets (GATS 2016-17).

Ruma Kaushik a lawyer from the state of Himachal Pradesh filed a petition (WP No. 1223 of 2004) for the implementation of specific health warnings on tobacco packs. The high

court directed the central government to frame rules for display of health warnings on the tobacco products packs as required by Section 7 of COTPA.

Health for Millions (VHAI) a civil society filed a PIL (WP No. 549/2008) for implementation of health warnings. Supreme Court of India vide order dated 6th May 2009, issued direction for the implementation of Rules, on display of health warnings on all tobacco products packs from 31st May 2009.

Key components of 2008, specified health warnings Rules were

Shall be printed, pasted or affixed on every retail package.

Shall occupy at least 40 percent of the principal display area of the front panel of the pack.

Shall be rotated every 12 months.

Specified health warnings were notified on 27 May 2011 and were in effect from 1st December 2011. In the meanwhile, some discussions were going on to improve these health warnings to be more effective. A committee had been constituted to review the existing pack warning rules of 2008 and suggest appropriate changes that conformed with provisions of COTPA 2003, "WHO Framework Convention on Tobacco Control" and Global Best Practices. The recommendations of the committee were incorporated, in the Cigarettes and other Tobacco Products (Packaging & Labelling) Rules, 2014, GSR No. 727 dated 15 October 2014.

New rules on Pictorial Health warnings 2014, implemented w.e.f. 1st April 2016; shall cover at least 85 percent of the principal display area of the package, "60 percent shall cover pictorial health warnings and 25 percent shall cover textual health warnings". Every package shall cover the following particulars: 1) name of the product, 2) name and address of the manufacturer, importer or packager, 3) origin of the product (for importers), 4) quantity and date of manufacture. There is a minimum size of pack warnings of 3.5 X 4 cm. When the government deferred implementation of 85% GHW, Mr. Rahul Joshi a lawyer files a PIL, W.P. No. 8680/2015, Rahul Joshi Vs Union of India & Ors., before the Rajasthan High court for implementation of GHW Rules, 2014. Hon'ble High court on 03.07.2015, directed enforcement of 85 percent health warnings. The Government of India notified the implementation date of new warnings as 1st April 2016. But here again, there was a clash between the interests of tobacco control professionals and the tobacco industry.

The tobacco industry used its influences on the politico-legal system to defer and delay the implementation of these new rules w.r.t. pictorial health warnings.

The tobacco industry challenged the 85% GHW, before several high courts pan India and got the implementation stayed. Supreme Court of India on 4th May 2016 / SLP (C) No 10110-10121 of 2016. These new rules were to be implemented on Bidis also, and so there were protests from Bidi associations, as till now, there were no warnings on Bidi packets. Karnataka Beedi Association & Anr Vs Union of India & Anr. Transferred all the cases pending before the different High Courts to the Karnataka High Court and vacated the stay granted by any High court till the cases are finally disposed of. The Karnataka High Court on 15.12.2017 ruled against India's 85% GHW.

Although the tobacco industry won the case in Karnataka high court this joy was very short-term as the matter was taken to the Supreme Court by tobacco control professionals/activists. The Supreme Court of India, in appeals, filed Govt. and NGOs, by its order dated January 8, 2018, stayed the Karnataka high court order. Subsequently the Government has enforced with effect from 1st September 2018 new GHWs.

The new GHW continues to cover 85 percent of the pack. 1) Images of patients suffering from oral cancers, 2)Health messages 'tobacco causes cancer' 3) a quitline number 1800112356

Associating Quitline number with pictorial health warnings was an innovative step as the tobacco users would now be able to easily access online cessation services if they have some intentions to quit. This raised the eyebrows of the tobacco industry. The tobacco industry argued that quitline seeks to prevent and discourage the sale or purchase of the product. This is directly contrary to the freedom to trade in a perfectly legal product and such compelled speech is in direct violation of the freedom guaranteed under Article 19 (1)(g). The industry further argued that exhortation 'quit today call 1800-11-2356' is a campaign/ propaganda of Govt. Instead of employing permissible means of disseminating their campaign by paying for the same, they are employing the GHWs to carry out cost-free advertisements. The new GHWs are not yet implemented fully as the Supreme Court in 2017 said that the rules will be applicable only on tobacco stocks manufactured after 1 September 2018. During the whole journey, there was also political lobbying by the tobacco industry and these dynamics are discussed later in this chapter.

In 2016, the Excise duty on smokeless tobacco was also increased further from 70 % to 81%. Basic excise duty increased on Pan Masala from 16% to 19%. Although the GATS-2 survey was also conducted during the same year (August 2016 to February 2017); and therefore these policy interventions taken during 2016 itself might NOT have impacted the prevalence of tobacco use during this period. These policy interventions may have long-term effects and the results will be reflected in the next survey.

The tobacco industry was constantly manipulating laws and taking advantage of any loopholes found in existing laws. Now tobacco control professionals are also becoming aggressive in their approach and are looking forward to using several other regulations (like FSSA, Juvenile Justice Act, Trademarks Act) to fence the tobacco industry.

Recently section 2.3.4 of FSSA (Food Safety and Standards Authority) Regulation is used to regulate the sale of smokeless tobacco products.

2.3.4 – “tobacco and nicotine shall not be used as ingredients in any food products”.

To fulfill the real import of the provision, tobacco control professionals are looking forward to amending the state notifications under FSSA to prohibit the use of any kind of additives, scents, or flavorings in all tobacco products (e.g. fragrances, scented supari, slaked lime, etc.).

Moreover, there is a lot of ambiguity regarding SLT control policies in India. For example, in the words of Dr. Rana J Singh:

“First of all, people are not clear regarding the definition of food. E.g. There was a discussion on Khaini. Whether Khaini is food or not? So that the FDA group, people who deal with food, were sitting. So there was different interpretation about – whether Khaini is a food or not. Anything that goes into the mouth, they consider it as food. But some of them were saying that No, it has not fulfilled the definition of food. So, in that way..... First of all clarity regarding the definition is not there. Secondly, these bans which are coming up.... if as per section 2.3.4 of FSSA, Gutka is banned, then why states have to ban it every year. It is something that states have to renew their ban every year. This should not be in that way. So, perhaps we have not been able to put up our case and that ambiguity is with us. People who are dealing with it, are not very clear about it. All these definitions and all those interpretations of the act.” [Interview at The Union Office, New Delhi on 15 June 2018]

Tobacco Control Professionals are also looking forward to invoking the Juvenile Justice (Care and Protection of children) Act, 2015, for any sale or exposure of tobacco to minors. The provision of the Act is very stringent with severe punishment.

“77. Whoever gives or causes to be given, to any child any intoxicating liquor or any narcotic drug or tobacco products or psychotropic substance, except on the order of a duly

qualified medical practitioner, shall be punishable with rigorous imprisonment for a term which may extend to seven years and shall also be liable to a fine which may extend up to one lakh rupees.”

It has also been proposed to Use Trademarks Act, 1999 –

Section 9(2) of the Trade Marks Act, 1999 suggests that trademarks shall not be registered if:

- (a) “It is of such nature as to deceive the public or cause confusion;
- (b) It contains or comprises of any matter likely to hurt the religious susceptibilities of any class or section of the citizens of India;
- (c) It comprises or contains scandalous or obscene matter;
- (d) Its use is prohibited under the Emblems and Names (Prevention of Improper Use) Act, 1950.”

Also, every tobacco product now has “Quitline” printed on them. The day Quitline started, it got about 200 calls per day. Now it get on an average about 500 calls per day.

Although tobacco control professionals are trying to compensate for loopholes present in existing laws by using these above mentioned new laws, it requires coordination between various ministries and departments. Like the "juvenile justice act" comes under the Ministry of Women and Child Development. Trademarks act comes under the Ministry of commerce and industry. Therefore the implementation of these laws w.r.t. the tobacco industry requires a huge degree of coordination and collaboration between these various departments. Regarding the implementation of these laws at the point of sale of smokeless tobacco, tobacco control professionals are also contemplating Vendor licensing which is discussed ahead.

Vendor Licensing –

To implement tobacco control laws at the point of sale, there is a need to know where these vendors are. The implementation of laws requires the sale of tobacco to be regulated. At present sale of tobacco is completely unregulated. Tobacco vendors sell tobacco at kiosks, on the roadside, on cycles, from bakery shops, from cosmetic shops, etc. To control the sale of tobacco, the regulators should know where vendors are located. Ministry of Health released an advisory in this regard in 2017. Tobacco control professionals consider vendor licensing as very important for the implementation of various laws. After licensing/ registration or authorization, tobacco vendors may lose their licenses if non-compliant with the law. Some states are exploring local municipal laws to get licensing done. Bihar, Jharkhand, and UP have already started the process. According to tobacco control

professionals, tobacco products should be sold only from licensed, authorized shops. This is similar to alcohol licensing. Moreover, these shops will only sell tobacco and not any other products such as Toffees, Biscuits, chips, etc. In Lucknow, this bill has been passed from the cabinet. They are now thinking of converting it into a Gazette. Tobacco Control activists approached the Governor of UP Ram Naik and municipal associations in Lucknow. They also approached "Vendor associations" and counselled them that licensing is in their favour as police will not unnecessarily harass you once you become a licensed vendor. However, there is a huge protest going on from tobacco vendors across the state. This is due to some requirements of licensing which include Aadhaar card; annual fees of Rs 1000; at-least 200 meters distance between two shops; not more than one vendor per 1000 population. Moreover, the authorities will only license those with a proper shop. Kiosks, road-side vendors, etc. will not be given a license. Thus vendors are protesting. There is a bigger question that why tobacco control policies are targeting poor and vulnerable tobacco vendors instead of multinational tobacco companies. Again the question of loss of livelihoods of poor families comes. Even in the case of cigarettes, the multinational, as well as Indian cigarette companies, only require registering themselves; and no licensing is required to produce cigarettes. Thus licensing should be first done with multinational cigarette companies and other big tobacco companies. There is a need to address the problem with a scalpel rather than an axe. In the present scenario, without any provision for alternative livelihoods, vendor licensing will only backfire.

[Based on data collected during 4th National Conference on Tobacco or Health
(4th NCTOH)]

Political Dynamics and Lobbying

Although various stakeholders in tobacco control put hard efforts to bring tobacco control measures in the country; still the final implementation of any public health/ tobacco control measure remains a political choice that requires political will. This gives way to the lobbying of tobacco companies with politicians. There were several incidents in India when tobacco companies exerted influence on governments, to deter, dilute or delay the policy measures for tobacco control.

The tobacco industry has been aggressively using its networks to manipulate law-making. Way back, when P. V. Narasimha Rao was Prime minister, buses full of tobacco farmers were brought from his home state of Andhra Pradesh to Delhi in order to protest against the proposed Indian Tobacco Bill. Moreover, the Tobacco Institute of India distributed newsletters to all policy-makers and legislators which was focused on industry arguments of protecting tobacco manufacturing companies.

Also in April 2003, when the Indian Tobacco Bill was being debated in the upper and lower houses of Indian Parliament, the Tobacco Institute of India advertised widely that, “Tobacco legislation based on a western model will encourage tobacco consumption in India” and “The livelihood of 35 million Indian farmers, tribes, traders and labourers is under threat” (Reddy & Gupta, 2004; pg 216-17).

In 2004 when Sushma Swaraj was a health minister, India implemented a ban on tobacco advertising. Subsequently, Sushma Swaraj had to lose as a health minister. Similarly when Harsh Vardhan took health ministry in 2014 and became very proactive against tobacco; he lost his health ministry and was shifted to the Ministry of Science and Technology. This shows the political influence of the tobacco industry in India. In fact, the tobacco industry is politically influential worldwide. Jim Rumford in his book "Tobacco, trusts, and trump" has written how tobacco trusts influenced the governments in America. Here in India, the lobby is much stronger with the formation of cartels, business lobbies such as Assocham, FICCI, and CII. Here it is important to understand that tobacco lobbies are business lobbies whereas tobacco control NGOs are just policy influencers. The impact of tobacco lobbies on politics is much stronger and is governed by their vested interests. I would like to give a reference here. Aaseema Sinha in her paper "Understanding the rise and transformations of business collective action" has shown how CII nudged FICCI in the 1980s by popularising the idea of economic reforms to the opposition parties during Rajiv Gandhi government. CII was seminal in creating a public opinion in favour of economic reforms and convincing the left parties in the coalition government that the move is progressive. Similarly during present times also, there exists a symbiotic relationship between business lobbies (which are dominated by the tobacco industry among others) and political parties. For practical purpose tobacco industry lobbies with any political party which is in power. Here it becomes imperative to illustrate an example of pictorial health warnings.

In October 2014, the central government announced plans to mandate the use of pictorial health warnings covering 85% of tobacco product packaging, which were to be implemented from 1 April 2015. However these plans were suspended, when a parliamentary committee consulted tobacco industry lobbyists. The committee chair, Dilip Gandhi asserted that no study in India had established that tobacco causes cancer. He said, "Whether tobacco actually causes cancer or other diseases is subject to a study in the country. That has never happened. And the basis of our stance, towards tobacco products, is basically studies that have happened in a foreign setting" (Hopkinson et al., 2015).

Suddenly so many front groups emerged. These were Pan shops association, Bidi Associations, Tobacco farmers Associations, CII, TII, Assocham. They started building pressures on Health Ministries. They wrote letters to MPs, Health Minister and Prime Minister. There were bags full of letters in the health ministry. MPs also wrote to Health minister and Prime minister. The front groups levelled allegations against tobacco control professionals that they have vested foreign interests. Instead of targeting Multi-national foreign cigarette companies, they are targeting us. "Protect our Livelihoods" posters were everywhere showing a poor farmer with folded hands. There was also a big hoarding opposite Nirman Bhawan. These protests continued till CoP 7 held at Noida in 2016. Several court cases were filed by the Tobacco industry and their front groups. CoSL submitted its report and the ministry of Health was asked to submit a counter-report. Karnataka High Court reverted the pack warnings to 40 percent. Such was the influence of tobacco lobbies. But this was not the end. The matter was taken to the SC.

Tobacco Control Activists started working on counter-note. They met every member of CoSL and gave presentations in front of them. Counter-note was effective. The tobacco-victims were involved to write letters. Media Campaigns were conducted. Finally, PM Narendra Modi said that he favours pictorial warnings on tobacco. On 1st April 2016, "85 percent" pictorial warnings were implemented. Tobacco companies again filed court cases and rules were ambiguously changed in 2017. It was said by Supreme Court that rules will be applicable only on tobacco stocks manufactured after 1 September 2018.

However, Governments cannot take a stand on the issue of tobacco. It will be apt to say political parties cannot take a stand on tobacco issues. In some recent incidences, FCRA licenses of tobacco control NGOs were cancelled by the government.

In April 2017, the central home ministry revoked the FCRA (Foreign Contribution Registration Act) license of an NGO named PHFI (Public Health Foundation of India) by stating the alleged misuse of foreign funds for anti-tobacco lobbying. The NGO was charged for using INR 43 Crores of foreign funds to lobby with the media, parliamentarians and the government on tobacco control issues. It was argued that lobbying was not permitted under FCRA. The five activities for which the NGO was permitted to use foreign funding were of a cultural, social, religious, economic and educational nature. According to officials “PHFI was registered under the FCRA under the head Social and Educational” (The Times of India, 20 April 2017).

The NGO was launched in 2006 and “has worked in partnership of the Ministry of Health and Family Welfare on several areas including HIV prevention, access to drugs, tobacco control, and immunization. But in 2017, under the BJP government”, an official from Home Ministry argued that “an NGO was not permitted to lobby for tobacco control, which could only be done by an entity as a public relations company that must pay due taxes”. I would like to quote here one of my key informant who is an expert in tobacco control research,

“If you remember the Reuter’s report of..... exposure they did of Phillip Morris International. I don't know if you have read that. If not, it is a series of articles you must read. It is by Aditya Kalra. So he did an exposure of their internal documents – Phillip Morris International. In that they had in their presentations, one of the slides, which included eight tobacco control champions from Asia including Dr. Srinath Reddy, Bungnon and few others, and Dr. Reddy's picture in that presentation was circled with Red. So.... Kind of conveying that, they were doing very strategic targeting. So definitely, the industry is behind many of the things.” [Interview at PHFI Gurgaon on 27 August 2018]

Further in September 2017, three more NGOs: Voluntary Health Association of India (VHAI) Assam, VHAI Karnataka and Institute of Public Health (IPH) Karnataka; were stripped of FCRA registration. The argument was the same that “they cannot receive foreign funding for activities other than their stated purpose – Charitable activities in the cultural, social, religious, economic or educational fields”. The report of the Intelligence Bureau (IB) states that "restrictions of tobacco use in India would encourage consumption of more injurious toxicants like alcohol and narcotics. It will lead to the flooding of illicit cigarettes and smuggled foreign brands in the country. Also, a crackdown on tobacco

would hit farmers as 2.6 crore farmers. This also includes adverse economic impact on 3.5 crore people of forced closure of tobacco-related farming/ industry" (The Times of India, 3 September 2017).

According to a key informant who is an expert in tobacco control research,

"We can't say which industry or what led to it. But definitely from newspapers reports whatever was evident was that tobacco lobby was strongly behind it. Since COP7, they were advocating that foreign money is being used to fund NGOs and the tobacco control work. But the surprising part is that even if we think that foreign money is used for tobacco control activities, it is very much in line with the National Tobacco Control Programme. Implementing COTPA which is the national law, itself is part of the National Tobacco Control Programme. So all activities are very much aligned to what the Government of India has signed as FCTC and agreed in COTPA. So..... what is wrong in implementing (whether it comes from foreign funds or domestic funds). So that is the whole confusion and I think..... because the industry has been talking to other ministries except health ministry (because obviously health ministry would not be buying their arguments). So probably industry is talking to all other ministries which may not be sensitized enough about the whole epidemic of tobacco and how tobacco control is so evidence-based. That is where they see that their arguments be bought." [Interview at PHFI Gurgaon on 27 August 2018]

Here it becomes important to analyse the double standards of governments regarding tobacco issues. It seems to be simple give and take; whose interests will be served by whom. It also depends on the fact which political party is supported by a particular NGO and which political party is in power. Tobacco lobbies cleverly get along with any political party which is in power but the heads of national NGOs may be more transparent about their political choices. Moreover, tobacco companies do not hesitate to give bribes to politicians to facilitate a smooth business in the region/ state or country.

Some pieces of evidence have been unearthed recently where tobacco companies have been found bribing politicians. In June 2017, 'The Hindu' exposed 'Gutkha Scam' where Income Tax Department, "while searching the Chennai premises of the 'MDM Brand of Gutkha', discovered accounts suggesting that INR 39.91 Crore was paid over two years to the Tamil-Nadu Health Minister, C. Vijaya Baskar, two former Chennai Police Commissioners and other officials. These officials and ministers were bribed to facilitate

illegal trade in tobacco products i.e. to ensure the manufacture, storage and sale of Gutkha which was officially banned in Tamil-Nadu since 2013” (The Hindu, 24 May 2018, Pg 9).

“The IT department then sends this confidential report to the Tamil-Nadu Chief Secretary and the Director General of Police, but the government took no action. The Tamil-Nadu government claimed that it had not received any report on the Gutkha scam, but subsequently, the IT department seized a copy of the report from Jayalalitha's residence during a search in November 2017. It was also found that IPS officers (including two of DGP rank), a state minister and Central department employees were potentially involved in bribery” (The Hindu, 7 September 2018, Pg 1). Gutkha was banned in the TamilNadu state in 2013 by the then Jayalalithaa government. In September 2018, CBI conducted searches at 35 locations in TamilNadu, Karnataka, Andhra Pradesh, Maharashtra, and Puducherry, including the residences of the Health Minister, the DGP and former Chennai Police Commissioner. Subsequently, the CBI arrested three promoters of Jayam industries; one Food safety department official and the central excise superintendent. The promoter of Jayam industry was believed to be the main partner of the MDM brand Gutkha company (The Hindu, 7 September 2018, Pg 1).

One more widely debated issue is the investments of Indian state-owned insurance companies in tobacco firms such as ITC. Four public sector insurance companies and the specified undertaking of the Unit Trust of India (SUUTI) hold a 30.25% stake in ITC. While Life Insurance Corp (LIC) of India has a 16.29% stake, SUUTI's holding is 9.10%. Other companies include New India Assurance Co, General Insurance Co, National Insurance Co and Oriental Insurance Co. New India Assurance holds a 1.71% stake in VST industries (The Economic Times, 14 April 2017, Pg 1).

Moreover LIC (Life Insurance Corporation of India) had not just invested in ITC but had doubled that investment over the years and had shares in Dharampal Satyapal Ltd (Baba chewing tobacco) and VST industries (makers of Charminar Cigarettes) as well (The Economic Times, Magazine Special Report, April 30- May 06, 2017).

Also, the 12th Annual Asia Pacific tax forum, held in Delhi, constituted Senior Indian Tax Officials, was sponsored by major global tobacco corporations (Hopkinson et al 2015). Further, the trade of SLT products in India witnessed illegal connections or activities. In a reply to a Rajya Sabha question in 2005, the Minister of Home Affairs disclosed that two major tobacco barons of India met a gangster for setting financial disputes.

Conclusion –

Nevertheless what the future might bring is intriguing, but it would be unwise to predict the future. There are countervailing forces both regionally and nationally and even internationally. Control rather than hedonism may be the unifying rhetoric where culture is now more concerned with abstinence. Whatever the future holds, there is a need to think beyond immediate aggression in tobacco control policies. Tobacco provides significant employment opportunities, both in on-farm and off-farm situations and provides livelihoods to millions of people in India. There are different estimates by different organizations but nonetheless, numbers are in millions.

Recently in October 2018, Nayantara S Nayak presented the findings from a household survey carried out between 2012 and 2014 in 12 states of India as part of a major study by the Centre for Multi-Disciplinary Development Research (CMDR), Dharwad; which was funded by the International Development Research Centre (IDRC), Canada. He argued that there appears to be an overestimation of tobacco-dependent employment in India. According to his (CMDR) study, there were approximately seven million people (growers, agricultural labourers, processors, bidi rollers, tendu leaf pluckers and factory workers) who were dependent directly or indirectly on tobacco for their livelihoods (Nayak, 2018). These estimates excluded traders and retailers. The number of tobacco-related employees in marketing, trade and retailing was estimated to be about 0.4 million, by a 2001 report by the Ministry of Health and Family Welfare (MoHFW, 2001).

Thus millions of people are dependent on tobacco production and trade. These are not just numbers; because when some threat comes to our own life, just one life becomes so important. Similarly, these seven million (or more) lives are also important and cannot be ignored. Moreover, if there will be some policy provisions of support for economically viable alternative activities for tobacco-dependent populations; it will also help in addressing supply side issues of tobacco.

To address this issue WHO (World Health Organisation) in its FCTC (Framework Convention on Tobacco Control) obliged its parties, under Article 17 of this convention, to provide support for economically viable alternative activities, for tobacco workers, growers and, as the case may be, individual sellers. Moreover “the seventh session of the Conference of the Parties (CoP7) to the WHO Framework Convention on Tobacco Control held at Noida, Delhi, India during 7-12 November 2016” (FCTC/CoP7); reiterated that the

“WHO FCTC requires its parties to promote economically viable alternatives for tobacco workers, growers and as the case may be, individual sellers” (FCTC/CoP7).

Accordingly, the ministry of labour and employment initiated the pilot scheme of providing training to bidi workers to provide them alternative sources of employment through viable sources of livelihood. These trainings have been conducted in 6 regions of the country namely Bangalore, Nagpur, Ajmer, Jabalpur, Hyderabad, and Kolkata (Ruhil 2011 unpublished). Further, Ministry of Health & Family Welfare (MoHFW) in collaboration with Central Tobacco Research Institute (Ministry of Agriculture) has also launched a pilot initiative for providing alternative cropping system to bidi/ chewing tobacco crops in 5 different agro-ecological sub-regions viz West Bengal, Karnataka, Tamil Nadu, Andhra Pradesh and Gujarat (Ruhil 2011 unpublished). Further, in order to address the issue on long term basis, the Ministry of Health & Family Welfare has constituted an expert group at National level with representation from different Ministries like Rural Development, Women & Child Development, National Dairy Development Board, Civil Society etc. This group will look into the issues of alternative livelihood to the bidi rollers and chalk out a long term rehabilitation strategy (ibid).

But the policy on Alternative Livelihoods has not yet addressed smokeless tobacco vendors and retailers. There is a need to work on this issue in coordination with skill development policies and programmes of central as well as state governments. This in itself is an area of research that how smokeless tobacco alternative livelihoods policies can be rolled out. This is discussed in next chapter.

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Chapter 9 –

**Address the problem with a
“Scalpel”, rather than an “Axe”.**

Address the problem with a “Scalpel”, rather than an “Axe”.

In previous chapters we have seen that tobacco control policies are a major determinant of tobacco use along with deprivation levels and education levels of tobacco users. It points towards some structural forces operating at the national and international levels which determine the tobacco use habit among individuals. From previous chapters we have come to know that it is not as simple as giving NRT (Nicotine Replacement Therapy) to tobacco users and done with the problem. Also it is even not as simple as just putting a ban on smokeless tobacco and fixing the problem once for all.

An applied research on scientific cultivation of tobacco was carried out by CTRI (Central Tobacco Research Institute), India; using various combinations of mono-cropping and intercropping patterns on different soil types. Farmers had successfully replaced tobacco with alternative crops in different regions such as traditional soils of Gujarat, black soils of Andhra Pradesh and bidi areas of Karnataka. The studies on Bidi tobacco in Karnataka have shown that “sugarcane, in irrigated areas; and ‘soya bean’ and jowar, in unirrigated areas, can be alternatives for tobacco”. It had been shown that “the net return per rupee of investment was higher in the cultivation of ‘jowar’ (1.84) as compared to tobacco (1.48)” (Prasad, 2007: pg 5). Thus indicating that farmers need not depend on tobacco but there are equally remunerative alternative crops.

An action intervention study was carried out during 1997-2000 in ‘Sidnal’ village of Karnataka by CMDR. Provisions were made for financial assistance to farmers as well as for the distribution of high quality seeds of alternative crops suitable to the area. As a response to this project, there was 50 percent reduction in the area where tobacco was grown by the participating farmers. However, in the immediate next year, the reduction in tobacco grown area was only 15 percent which might be due to lack of sustainment in financial and institutional support. Similarly in another study, tobacco farmers in Gujarat had switched from only tobacco crop to inter-cropping with cotton; and they had higher net return per hectare. Likewise in another study in Andhra Pradesh, tobacco farmers were forced to grow alternate crops (such as pulses, gingelly, maize and soya bean) in 2000 due to drought conditions; and surprisingly these alternative crops were found to be viable alternatives to tobacco with a cheaper cost of cultivation as compared to tobacco (Prasad, 2007).

Thus tobacco farmers were willing to grow alternative crops to tobacco; but it required continued assistance especially financial assistance at-least in the initial years of crop alternation. But mobilising resources for alternate cropping throughout years is a big challenge. Moreover any major deviation from established agricultural practices is a forceful intervention and requires an enabling platform, adequate provision of inputs and post-shift inputs for the change to be sustainable in the long run. There are other problems while making the shift to alternative livelihoods. One of these is the decision-making at two separate levels by central and state governments in India. Centre looks after the forests and labour welfare, while agriculture is a state subject. Moreover there is involvement of Ministries of agriculture, labour, commerce, industry and forestry; in order to formulate any policy regarding alternative livelihoods. The co-ordination and consensus between all these ministries and governments is a major challenge. There are other challenges like an established market for tobacco which ensures higher net returns for tobacco crops. This is the reason that the area under cultivation of tobacco as well as the total productivity of tobacco has increased by 219 percent from 1970-71 to 2010-11 (WHO-Searo, 2015). The price of flue-cured Virginia (FCV) tobacco/kg rose from Rs 115.82 in 2013 to Rs 129.02 in 2014 and Rs 121.50 in 2015 compared to less than Rs 50/Kg for other crops (WHO-Searo, 2015).

Dr Vinayak Prasad in his paper in 2007 has suggested setting up of a board to increase the productivity of alternate crops, along the lines of the Tobacco board, Coffee board or Tea board. This board should provide information as well as assistance to tobacco farmers to shift to other high-yielding crops. Various inputs like high-yield variety seeds, fertilisers and other inputs including finance should be provided. Forward linkages in the form of Minimum Support Prices (MSP), auction platforms, storage and marketing of alternate crops should also be provided. Dr Prasad further suggests setting-up of co-operative societies or self-help groups by tobacco farmers, for basic necessities of the village, and to establish backward and forward linkages; on the pattern of 'Amul'. NGOs can also play an important role in providing alternative livelihoods to tobacco farmers; facilitating access to government and institutional support, and also facilitating the creation of SHGs and co-operatives (Prasad, 2007).

This was regarding agriculture. Further to address the issue of alternative livelihoods to the bidi rollers and chalk out a long-term rehabilitation strategy; the Ministry of Health and Family Welfare has constituted an expert group at national level with representation from

different ministries like rural development, women and child development, national dairy development board and civil society (Ruhil, 2011, unpublished). There are reports about employment of bidi rollers under MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Scheme) where the wages were also higher as compared to bidi rolling (Singh, 2016). The back and forth in bidi rolling employment has also been reported where about 22 percent of bidi rollers had to return to it due to lack of equal work opportunities (Nayak et al., 2017). Moreover it has been reported that women do not prefer to go out of their homes for work. Rather they prefer to roll bidis at their own home. This is a major challenge. Also bidi rollers expect government to provide training as well as credit facility to move them into alternative livelihoods. Adding to the challenges; All India Bidi, Cigar and Tobacco Workers Federation (which is affiliated to All India Trade Union Congress, New Delhi) does not support the idea of alternative livelihoods for bidi rollers and want to ensure some commitment from government in this regard. One more challenge is that the policy on Alternative Livelihoods has not yet addressed smokeless tobacco vendors and retailers. There is a need to work on this issue in co-ordination with skill development policies and programmes of central as well as state governments. This in itself is area of research that how smokeless tobacco alternative livelihoods policies can be rolled out.

Many countries such as Indonesia, Brazil, Kenya and Uganda have taken steps to find economically viable alternatives to tobacco growing. In Indonesia, former tobacco farmers are growing non-tobacco crops, and are making more money doing so (Drope et al 2018). Brazil started a programme in 2005 to implement rural-extension projects, training and research in tobacco growing areas, to create some alternative opportunities for income generation with guiding principles of rural “sustainable development, food security, developing local knowledge and multifunctional farms; with a focus on social, economic and environmental sustainability” (WHO Searo 2015, p. 13). In Kenya, a study was conducted to “see if bamboo could be grown as a sustainable alternative to tobacco, and a market value chain could be developed for bamboo products” (WHO Searo 2015, p. 14). The planting conditions for Bamboo in terms of soil, rainfall, altitude and temperature were same as that for tobacco. The support in terms of inputs, information, training and capacity building was provided extensively. The monitoring was also done in the study area. The results showed that income from bamboo production was about “4 to 10 times higher than from tobacco farming. Moreover bamboo grew well in tobacco-farming zones.

It also had potential for cleaning water, protecting river banks and reforestation. In experimental area, almost all the farmers were willing to grow bamboo in place of tobacco.” (WHO Searo 2015, p. 14) Further farmers were also engaged in making handicrafts from bamboo, such as baskets and furniture. To market these bamboo products; four community based bamboo farmers’ co-operative societies were also formed.

There were some guiding principles for the strategies to be effective for providing alternative crops and livelihoods. First of all there should be diversification of livelihoods rather than substitution. Diversification strategies should include both agricultural and non-agricultural opportunities. It also promotes sustainable development. Farmers should be provided with wider spectrum of resources and opportunities especially in the transition period and it should include inter-sectoral initiatives. Moreover tobacco workers and growers should be involved in policy development which should be based on best practices within a holistic framework; and these policies should be protected from vested interests of tobacco industry. Further involvement of agricultural universities is must to seek technical support and transfer of technologies related to alternative crops; and support from Ministry of agriculture is imperative for this to happen. Tobacco board should be involved to work out MSP (Minimum Support Prices) for alternative crops and setting up auction platforms for these crops. “Farmers who are willing to switch should be provided technical assistance”, soft loans and support for marketing of alternate crops etc. Further “care should be taken to see that there is no economic loss to these farmers”. The Ministry of Health has suggested the agriculture ministry “Barn Buyout Scheme” which “provides a support of INR 500,000 per barn to farmers who are willing to shift from tobacco cultivation” (WHO Searo 2015, p. 10).

In July 2015, expert group consultation on alternative livelihoods for tobacco farmers and workers was held at New Delhi. The consultation recommended “developing a regional strategic framework with a specific road map on alternative livelihoods for tobacco farmers and workers” (WHO Searo 2015, p. 31). It further recommended that “strategy should focus on constituting a national mechanism on alternative livelihoods and enhancing its capacity” (WHO Searo 2015, p. 31). It suggested that “countries should map existing programmes with a view to include alternative livelihood opportunities in the same” (WHO Searo 2015, p. 31).

As we are at infantile stage regarding alternative livelihood policies for tobacco workers; we must not forget that world of work itself confronts significant challenges especially at the current juncture. After skill development of tobacco workers, we must see whether they will be part of a larger informal workforce where ‘precarious’, ‘zero and flexi contract’, ‘platform work’, ‘agency work’ etc. have become norms of the labour market. We need to address larger structural forces which could not provide for decent work and thus people are forced to do menial jobs including tobacco vendors, bidi rollers, tendu leaf pluckers etc. Although decent and full employment is one of the agendas for policy makers both nationally as well as internationally; it has been reduced to just a lip service (Jha, 2018). Sustainable Development Goal 8 commits itself to the promotion of “Sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”. But SDGs themselves are faced with tremendous challenges with declining international aid for development; and thus have become a mere gimmick (Ruhil, 2017). The current hegemony of neo-liberal macroeconomic framework has resulted in so-called “jobless growth”. This period of neo-liberal globalisation which started in 1970s have profoundly increased informality in employment, which has repercussions for the well-being of labour. The thrust of “Washington consensus” has been: ‘market knows and does the best for the economy; leave it to the market’. In Indian context, the serious challenge is the quantity and quality of employment; and this challenge has confronted the Indian economy since the period of Independence and the problem has increased since the economic reforms of early 1990s (Jha, 2018).

The recent World Bank report titled “Jobless Growth?” projected that – to even maintain constant employment rates up to 2025, India will need to create at-least 8 million jobs per year (World Bank, 2018). Thus simply focusing on the quantity of jobs, itself is a huge challenge, and then comes the quality of jobs, which seems impossible, at-least for the coming decades. According to Professor Praveen Jha, employment elasticity in India has shown a secular decline for more than three decades now, in spite of maintaining a quite respectable GDP growth rate of more than 6 percent per annum. Thus it raises a very pertinent question – whether rapid growth rate of GDP alone can address the requirement of massive additional job creation (Jha, 2018).

Now coming to quality of jobs; the contract labourers and contractors is the norm of the industry across the industrial sectors in India; whether it is spinning, weaving, buffing, ceramics, metal work, furnishings etc. The workers spend their entire lives serving for

contractors. Moreover there is no commitment in these jobs as the employees or workers are hired and fired at periodic intervals. On the other hand, if workers or employees are given permanent, formal positions in the enterprises or jobs; they feel a sense of self-worth, and get incentivised to stay with the job and grow with the job. Thus we should not be myopic in our vision while planning for skill-development trainings of tobacco workers for alternative livelihoods. Jeevan Prakash Sharma in 2016 has reported that only 5 percent of those who have gone through Pradhan Mantri Kaushal Vikas Yojana (the government's primary skill development programme) have found jobs after graduation (Sharma, 2016). Adding to these woes, about 65 percent of those who have received formal, vocational training in engineering or computers eventually end up as farmers (Verma, 2013). Similarly, about 60 percent of those who got training in textile got jobs unrelated to skills they have supposedly acquired (Verma, 2013). Here it is even more difficult for tobacco workers as they are not even literate.

Thus we need to see if tobacco workers will be able to sustain themselves after quitting their current vocations and switching to alternative livelihoods. What will be the prospects of enrolling them into skill development programmes and self-help groups? As already shown in case of bidi workers; that about 22 percent of bidi rollers had to return to it, due to lack of equal work opportunities (Nayak et al., 2017). Their alternative financial positions should be at-least equal to the present ones if not at par. There is no questioning regarding encouragement of alternative skill-development among tobacco workers, which is sacrosanct. But at a larger structural level, there is also a need for raising capacity and formalising the Indian economy to create more satisfying formal jobs. There is also a need to invest in health and education which is quintessential of a prosperous economy. Only after doing these architectural corrections in the Indian economy, our efforts towards providing alternative livelihoods to tobacco workers will be successful. As for now, we have not even started our journey towards providing alternative livelihoods to tobacco workers, which is a major gap in our tobacco control policy perspective. To conclude, instead of using an axe and hitting hard on livelihoods of people, by imposing a total ban on smokeless tobacco; we should rather use a scalpel and perform some conservative surgeries of Indian economy where there is a scope for tobacco farmers and workers to switch to alternative livelihoods; and then there will be minimal suffering as far as tobacco control is concerned.

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Chapter 10 – Conclusion and Way Forward

Conclusion and Way Forward...

In this thesis I chose to research on smokeless tobacco (SLT) use in India as a public health research problem; because in India SLT use is a major public health problem. There is a relation between tobacco use and ill health, which has been discussed in introductory chapter of this thesis. Although it has not been established by experimental research (which is not possible ethically) that tobacco use is a causative agent for several diseases including cancers; however an association between tobacco use and several diseases has been clearly shown from time to time by a plethora of epidemiological studies, many of which have been cited in introductory chapter. The association of tobacco has been shown not only to cancers, but to other respiratory, gastrointestinal, cardiovascular and other illnesses. Thus it has bearing on both morbidity and mortality. The tobacco induced morbidity and mortality is more relevant for adults, as the ill health effects of tobacco use get accumulated throughout life and manifest themselves in the form of various diseases during later years of life leading to pre-mature mortality. Thus there is a life-course phenomenon when we discuss morbidity and mortality related to tobacco use.

There are various forms of tobacco use. They have been broadly classified as smoking forms of tobacco (cigarette, Bidi, Hukkah, Cigar, cheroot, cigarillos etc.) and smokeless forms of tobacco (Khaini, Gutkha, Betel quid with tobacco, Pan Masala with tobacco, snuff etc.). As per the Global Adult Tobacco Survey (GATS) 2016-17, the prevalence of smokeless tobacco use among adults (>15 years) was 21.4%, with 29.6% among men and 12.8% among women. On the other hand prevalence of smoking forms of tobacco was 10.7%, with 19% among men and 2% among women. Moreover data collected by IHME (Institute of Health Metrics and Evaluation) shows that in India DALYs attributable to smoking as a risk factor has decreased over a period of three decades, whereas DALYs attributable to smokeless tobacco use as a risk factor has increased over a similar period of three decades (GBD, 2017).

Smokeless Tobacco has been recognised as a global threat by contemporary research as well. According to Professor Ravi Mehrotra, “Globally, a smaller proportion of smokeless tobacco users are advised to quit the use of smokeless tobacco products compared to tobacco users. Use of smokeless tobacco is becoming a global cause of concern, requiring

a greater commitment on the full implementation of the WHO Framework Convention on Tobacco Control measures.” (Mehrotra et al. 2019, Internet)

In this thesis, we have also presented the evidence about behaviour of the tobacco industry and its ability to make smokeless tobacco available in such a large way. We have discussed the multi-faceted, diversified, exploitative and resilient tobacco industry. We have seen how owners of SLT companies encashed on demands in the market and became billionaires⁷. The profits made by these large companies do not get equally distributed to the tobacco vendors, retailers and wholesalers. It has been shown in this thesis that these vendors, retailers and wholesalers have also passed their generations into this business. The diversification of tobacco industry into other businesses only strengthens their existence. We have discussed marketing strategies of SLT industry and how the time period from late 1980s to the start of 21st century gave a major thrust to SLT industry where it took advantage of open markets and private television channels and registered a phenomenal growth of 25-30 percent per year (Mukhopadhyay & Ramakrishnan, 2017).

Dr Shalini Singh and colleagues in a recent White Paper on SLT recommends, “Examining the interface of tobacco industry interference such as manipulation of public opinion and tobacco control efforts can enable development of policies that can circumvent these manoeuvres, prevent initiation and enable cessation of SLT use.” (Singh et al 2020, p. 518)

The evidence presented in this thesis has shown that tobacco epidemic is an industrial epidemic where the tobacco industry plays an important role in increasing the prevalence of tobacco use. According to Collin there are several forms of epidemics created by the tobacco industry. These include the generational epidemic wherein it passes from one generation to another whereby the tobacco industry specifically target youth towards tobacco use. The targeted epidemic wherein the industry runs targeted programmes for propagation of tobacco youth among targeted groups like women and youth. Lastly, the transnational epidemic wherein the industry makes its presence globally taking advantages of liberalisation and open markets. Thus commercial actors play an important role in the growing burden of tobacco-induced diseases. This is true regarding other industries also such as alcohol industry and fast-food industry (Collin, 2019). Transnational corporations actively promote consumption of ‘unhealthy commodities’, tobacco in this case, through

⁷ Dharampal Satyapal (DS) Group, Kothari (Pan Parag) Group, Urmin Group, Miraj Group, Kamla Pasand Group, Kuber Group are the few large ones which we have analysed in this thesis.

targeted marketing and global distribution. These corporations lobby and influence policy-makers in order to leverage trade and investment agreements and to overcome regulatory barriers thus establishing a business friendly overall environment (Collin, 2019).

We are aware that tobacco use behaviour is not just about industry but is also about individuals. Through the Kriegarian understanding we are looking at it at various levels. We are analysing what have been the policy initiatives; which of these domains have been addressed by different policies. As referred to eco-social model proposed by Nancy Krieger, we are looking at these policies at three levels, because shaping of individual behaviour is determined by these macro and meso factors along with individual level factors. But while discussing policies, we have seen that majority of these policies are focussing on changing individual behaviour.

At the level of individuals we have seen that their class, caste, education and occupation play a very important role in determining their tobacco use status. Generally these factors interact with each other. People coming from poor classes remain uneducated and get engaged in blue-collar jobs like daily wage labourers; and we have seen that all these factors become structural in nature and points towards a structural problem of poverty and underdevelopment. Thus we need to intervene at the upstream, from where tobacco use problem is emerging. Presently majority of our solutions are downstream and is looking at problem as it is seen, that is individuals are consuming tobacco and we have to prevent the individuals from consuming tobacco.

Gender-Sensitive Approach in providing cessation services is also important as we have seen that prevalence of smokeless tobacco use among women is a major concern. Findings and recommendations of this thesis are in consonance with contemporary research on smokeless tobacco by medical fraternity.

Dr Shalini Singh and colleagues in a recent White Paper on SLT recommends, “To design gender-sensitive cessation centres, orientation of individuals engaged in cessation efforts on enabling a women-friendly environment for quitting is crucial. Strengthening of the existing models and mechanisms of provision of healthcare must be done that aim to address the stigma surrounding SLT use, to provide safe and gendersensitive de-addiction and cessation services.” (Singh et al 2020, p. 519)

Similarly Dr J.S. Thakur in his Review Article in 2018 stated, “Tobacco use is not restricted to individual’s behaviour but is a multifaceted process contributed by a varied range of factors such as social, environmental, psychological and the genetic factors which are linked to the tobacco use. The determinants associated with SLT consumption include gender, wealth index (inverse association) and association with scheduled tribe. Other factors are parental use, peer usage, subjection to advertisements and furtherance of SLT. Lack of understanding of health hazards also contributes to higher SLT use risk.” (Thakur & Paika 2018, p. 42)

However it is pertinent to analyse here that the major focus of tobacco control policies is on providing cessation support in terms of behavioural counselling. GATS 2016-17 has shown that 33.2% of smokeless tobacco users made a quit attempt during the past 12 months prior to the survey. Only 49.5% out of them could stop SLT use, for less than a month; whereas, only 29.2% out of them could stop SLT use, for 1-3 months. There were only 21.3 percent of SLT users (who made a quit attempt) who were able to stop SLT use for more than 3 months. Thus only one-third of SLT users made a quit attempt and only one-fifth out of those one-third, were successful for more than three months. This data puts a question-mark on the success of individual-centric approach in tobacco control policies.

This policy also assumes that people are not aware of harmful health effects of tobacco use and by counselling them about harms of tobacco use, they will quit tobacco. Some other policies targeted towards awareness generation also assume that people are unaware of harmful health effects of tobacco use. But GATS 2016-17 shows that 95.6% of adults believed that smokeless tobacco causes serious illness. Also 94.4% of adults believed that smokeless tobacco causes oral cancer. This thesis has also shown that there are some other reasons that people use tobacco, other than unawareness. Moreover the data from Global Health Professions Student Survey (GHPSS) has shown that there is high prevalence of tobacco use among medical, dental, nursing and pharmacy students (CDC, 2005). Thus when medical students themselves are addicted to tobacco use, how can we assume that unawareness is responsible for high prevalence of SLT use in general public?

Similarly packaging and labelling policies i.e. placing pictorial health warnings on SLT pouches/ packs; also target individual behaviour. The policy does nothing to alter the behaviour of smokeless tobacco industry. It assumes that tobacco users will change their behaviour after seeing these warnings. The policy tries to instil a fear of cancer in the form

of horrific pictures of cancer patients. Do we need to frighten people every time? Does that have the desired effect? Industry itself is accepting packaging laws; so that it can absolve of its responsibility by giving warnings, and put the responsibility on consumers by saying that it is the choice that people make to consume tobacco use despite seeing these warnings.

If we discuss all the tobacco control policies in depth, we see that majority of these policies are targeted towards smoking as a public health problem; whereas not addressing smokeless tobacco is a huge gap in policy. The Union cabinet on 18 September 2019, approved a ban on production, manufacturing, sale (including online sale), transport, import and export, distribution or advertisement (including online advertisement) of e-cigarettes. The offence is punishable with jail terms from one to three years and fines of Rupees 1 lakh to Rupees 5 lakh (The Times of India, September 19, 2019, New Delhi: Pg 1). Moreover Prime Minister Narendra Modi in his monthly radio address to the nation (Mann ki Baat) urged people to give up tobacco and defended the ban on e-cigarette by saying that it was a myth that e-cigarettes posed No danger (The Times of India, September 30, 2019, New Delhi: Pg 1). Thus this recent move is specific to smoking forms of tobacco.

Similarly, Section 4 of “Cigarettes and Other Tobacco Products Act” (COTPA) bans smoking of tobacco products at public places. This 2003 Act defined public places and included hospitals, public offices, educational institutions, court buildings, auditoria, railway waiting rooms, restaurants, amusement centres, public conveyances and libraries (Jaisingh, 2009). Thus we are reducing the spaces where it can be smoked. Tobacco users switch to smokeless tobacco at such places to take their regular dose of nicotine as they face withdrawal symptoms at such places. Thus the Global and national push for control on smoking, results in product substitution and increase in the usage of smokeless tobacco.

Second reason for product substitution is increased prices of cigarettes due to heavy taxation on them. On the other hand smokeless tobacco industry has been able to absorb much of the increased taxes and passes some of the raised taxes to its customers. The evidence has shown that increased prices of smokeless tobacco were not in proportion to the inflation (Rout & Arora, 2014). The SLT pouches which were priced at Rupees 1-2 some 10-15 years back; are now worth Rupees 5 and are quite affordable according to present scenario. Moreover the rise in prices of SLT products is not in proportion to the

rise in prices of cigarettes. That is why there is a tendency for product substitution when cigarette prices are raised too high and cigarette smokers switch to Bidis as well as smokeless tobacco products. Thus we have seen that taxation policy is also unable to change the structure and behaviour of smokeless tobacco industry. Rather it is also targeting individual behaviour which too remains unchanged.

The debates are also around Gutkha ban in the country which has to be implemented by states. Is banning a solution? Recently Supreme Court has given more teeth to food officers, where non-compliance to FSS Act could be penalised by imposing fine of up to Rupees 2 lakhs on food business operator (The Times of India, September 22, 2018, Pg 11). Thus it has been found that tobacco control policies have been very aggressive towards penalising individuals where they are targeting the vendors, shopkeepers and other marginalised people. The thesis has shown power relations and also political dynamics. In policy framework, there is so much fragmentation. It is very weak and fragmented approach where a unifying vision or strategy is absent. This is NOT because of lack of political will, but because of assertion of strong will by the tobacco industry. Tobacco industry is definitely influencing the political will as shown in this thesis as discussed in detail in chapter eight on policy. Seen through the lens of power, the evidence presented in this thesis shows how the smokeless tobacco industry is powerful and able to lobby to protect its interests at the state and centre levels.

Thus there is a need to regulate tobacco industry at first place. Merely banning the smokeless tobacco industry will NOT be able to fix the problem once for all. It has been discussed in previous chapter in terms of loss of livelihoods and need to address alternative livelihoods. Moreover if there is zero percent growth in job creation in formal sector, then where will we absorb these people who are currently engaged in livelihoods related to tobacco production and consumption? There is a need for policy formulation to address various levels of determinants of smokeless tobacco use. Nonetheless policies targeting individual behaviour are important; but policies should also address the eco-social environment of tobacco users; as this thesis has shown some structural level reasons that people use tobacco. These reasons include socio-economic distress, material deprivation and influence of tobacco industry which keeps tobacco products easily available and accessible at all times and at all places. Thus there is a need to address structural level determinants of tobacco use.

If we look at smokeless tobacco control policies of other south-east Asian countries; there are similar patterns. Bhutan is considered as a best practice where there is a complete ban on cultivation, manufacturing and sale of tobacco. In addition to it, “there is 100% sales tax and 100% customs duty applied on tobacco products for personal consumption” (NICPR SLT Hub Website). In spite of such an aggressive policy, smokeless tobacco use prevalence in Bhutan was 19.7% with 26.5% among men and 11% among women (STEPS, 2014). After complete ban, such countries face the problem of illicit trade and counterfeit products (Arantes, 2011).

Similarly in Thailand, there is ban on sale and importation of smokeless tobacco products. In Thailand there is low prevalence of smokeless tobacco use (2.1%) (Smoking and Drinking Behaviour Survey, 2017). But smoking prevalence is high (19.10%) in Thailand with 37.7% of men smoking (Smoking and Drinking Behaviour Survey, 2017). Surprisingly in Thailand, the government owns the largest share of the tobacco market through a state-owned enterprise called Thailand Tobacco Monopoly (TTM) (SEATCA, 2019). Thus power dynamics are similar in each country with Tobacco being most powerful due to its ability to generate cash.

On the other hand there are countries like Nepal which has placed a ban on use of any kind of tobacco products in public places including smokeless tobacco products. But still prevalence of SLT use is high in Nepal with 40.10% of men using SLT (Demographic Health Survey, 2016). In Sri-Lanka also there is a ban on sale, manufacture and importation of tobacco products. But in Sri-Lanka also there is a high prevalence of SLT use (15.80%) with 26% among men and 5.3% among women (STEPS, 2014).

Research has shown that in recent years, smuggling of tobacco products (both smoking and smokeless) has become a common phenomenon through various entry points on the Nepal-India and Nepal- Bangladesh- India borders (WHO-SEARO, 2008). Many families make their living by smuggling goods (including tobacco products) through these open borders. Small shops do not need to maintain accounts of their daily businesses which facilitate smuggling (WHO-SEARO, 2008).

Myanmar has highest percentage prevalence of smokeless tobacco (43.20%) in South-East Asian Region with 62.20% of men using SLT and 24.10% women using SLT (STEPS, 2014). However Myanmar has a ban on chewing Betel Quid in government premises. It has 75% of SLT package covered by pictorial health warnings and prohibits access of

tobacco products to minors (< 18 Years). In Myanmar, Betel chewing is major form of tobacco use. Interestingly in Myanmar, Red Ruby cigarettes are produced by company owned by the military of Myanmar. Bangladesh is also facing the problem of high SLT use (20.6%). Here SLT use among women (24.8%) is a major problem and is more than SLT use among men (16.2%) (GATS, 2017). Bangladesh too follows similar tobacco control policies because of being a signatory to WHO FCTC (World Health Organisation Framework Convention on Tobacco Control) along with Bhutan, Thailand, India, Nepal, Maldives, Myanmar, DPR Korea, Sri-Lanka and Timor- Leste among South-east Asian countries. Thus problem of smokeless tobacco use is an international problem with international solutions offered by International Public Health Organisations. Here role of World Health Organisation is very important and needs some discussion.

The trade liberalisation in the 20th century encouraged tobacco multinationals to penetrate new markets of low and middle income countries. The evidence has shown that it increased the tobacco consumption in these countries (Yach & Bettcher, 2000: pg 920). “The WTO multilateral agreements of 1990s facilitated the trade in tobacco products through significant reduction in tariff as well as non-tariff barriers to trade”. Although public health had traditionally been viewed as being almost exclusively a national concern, but it became imperative to develop an international public health response to an international problem (Taylor & Bettcher, 2000: pg 920). “Transnational health impacts of globalisation provided a rationale for the codification and implementation of global norms to deal with shared problems”. The domestic and international spheres of health policy started becoming more and more intertwined and inseparable. By the end of 20th century International Health Laws started encompassing increasingly complex concerns such as “human reproduction, human cloning, human organ transplantation, emerging infectious diseases, international food trade”, pharmaceuticals, narcotics etc., under the auspices of numerous organisations and agencies of United Nations System (Taylor & Bettcher, 2000: pg 920).

On 21 May 2003, the Fifty- sixth World Health Assembly unanimously adopted the WHO Framework Convention on Tobacco Control. The Framework Convention was opened for signature from 16 to 22 June 2003 (WHO, 2009). Signing the treaty was a political act that indicated the agreement of a member state to ratify it and its commitment not to oppose implementation of the provisions of the treaty by other states. When the treaty was closed for signature on 29 June 2004; it had 168 signatories; which makes it one of the most

widely embraced treaties in United Nations history (WHO, 2009). The WHO FCTC was a framework convention protocol approach similar to that in environmental laws. “This approach of international law consists of at-least two components (1) a framework convention, which typically establishes a general consensus about the relevant facts, broad international standards, and an institutional structure for global governance; (2) protocols that supplement, clarify, amend or qualify a framework convention and usually set form more specific commitments or added institutional arrangements” (Taylor & Bettcher, 2000, p. 922).

India is party to this convention and is committed to implement all provisions of this international treaty. The National Tobacco Control Programme (NTCP) itself was started as an obligation to effectively implement provisions under FCTC. Pilot phase of NTCP was launched in the 11th Five Year Plan in the year 2007-08 in 9 states covering 18 districts. Currently NTCP is under implementation in 108 districts covering 31 states/ UTs in the country (Kaur & Rinkoo, 2016). Therefore do we blindly follow a master map prepared under WHO-FCTC in all our policies and tobacco control efforts? There is a need to analyse all our national tobacco control policies in light of local situations. Nonetheless globalisation plays its role and interacts with local factors; but solutions should not be generic. Rather we need some customised solutions according to local needs and feedback.

We need a systemic approach to regulate SLT in the country. Tobacco is a major cash crop in India (as shown earlier in history section of this thesis). Therefore we need to explore whether alternative crops can provide income at par. Thus tobacco use is also determined by patterns of production. In this web of causation, these layers of complication at macro level have also to be taken into cognisance. Thus we need to look at bigger picture as to see why individuals are consuming tobacco; and need to target structural forces that are compelling individuals to use tobacco. All efforts towards holistic development of nation and distributive justice in our policies are paramount; so that poor can also taste the fruits of development. Investing in health and education is imperative without which a nation cannot be called a developed nation. Above all, community participation and grass-roots development is must for the development of rural and poor. Deprived populations should be mobilised and empowered.

To conclude, when we see the problem of tobacco use from the lens of public health; the solution is not restricted to just providing cessation services. Rather we need to look at the

problem in its totality and need to adopt a comprehensive approach while providing solutions. It requires multi-sectoral and inter-sectoral co-ordination and strong political will at all levels of development.

References of tenth chapter

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Additional Section PhD Thesis –

Lockdown amidst Covid-19 pandemic, as a determinant of tobacco use behaviour in India

Author –

Dr Rohini Ruhil,

Introduction –

Countries across the world are going through difficult times as, a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) also called Covid 19, has become pandemic. The virus is said to be originated in bats and then transmitted to humans; first in Wuhan, Hubei province of China in December 2019. The coronavirus COVID 19 has affected more than 215 countries with more than 30 million cases worldwide and more than 0.9 million deaths worldwide at the time of writing this piece.^[1] In India first case of corona was reported on 30 January 2020. At the time of writing this article corona cases in India have crossed 5.3 million mark with more than 85.6 thousand deaths.^[1,2]

This is a medical emergency for the whole world as the disease has spread rapidly and prove to be fatal. As a response to this situation, several countries including India have announced a total lockdown in their countries for some time. This section studies the availability of tobacco products during lockdown in India and how this has affected tobacco use behaviour in the country. Tobacco use has been identified to increase the susceptibility to Coronavirus and also the severity of corona virus among tobacco users. Thus it seems a wise decision to ban sale of tobacco products during lockdown, but few researchers are worried about how people would cope with the withdrawal symptoms. Tobacco cessation telephonic Quitlines are flooded with calls of tobacco users facing withdrawal symptoms. This is a situation of “forced cold turkey” where tobacco users are compelled to quit tobacco. Moreover the lockdown provides an ideal condition to quit as the tobacco users are isolated from their peers who influence them and do not let them quit. The tobacco companies have suspended their operations for the time being which will be resumed once lockdown is over. Thus supply of tobacco products will be resumed but demand from tobacco users may fall if they are able to quit forever during this lockdown period. Sustainability of quit behaviour is very important to be resulted in a dip in tobacco use prevalence as will be reflected in GATS 3 survey. Thus, there is a need to include tobacco control in the agenda of fight with Covid-19 pandemic.

Tobacco Use and Covid-19

Research has shown that tobacco use increases the susceptibility to COVID 19 illness by weakening the immunity of the patient.^[3] Further severity of illness is more in patients who are tobacco users.^[3] Moreover tobacco use has an adverse impact on lung functioning which makes the tobacco user susceptible to influenza and pneumonia and also hampers the recovery from such illnesses.^[3] There exist co-morbidities in tobacco users like cardiovascular diseases, respiratory diseases and cancers; which can worsen the condition if patient acquires Covid-19 illness.^[4] Thus prognosis of COVID 19 is poor among patients who are tobacco users. Moreover practices like Hukka sharing, spitting tobacco etc will increase the transmission of Covid 19 in communities.^[4] There is also a threat of increased passive smoking by women and children as the smokers are locked inside their homes and will smoke inside in presence of other family members.^[4] Thus many researchers argue that sale of tobacco products should be completely banned during lockdown amidst Covid-19 pandemic.^[4]

Availability of tobacco products during lockdown

In lieu of the health emergency situation in the country, Government of India ordered a nationwide lockdown for 21 days on 24th March 2020^[5], which was further extended up to 3 May 2020; and further up to 31 May 2020.^[6] After this also, many states continued with state-wise lockdowns. Many items became unavailable during this lockdown period. One such item is tobacco products. There was a reduced supply of tobacco products and so the prices soared high and then this limited stock too started vanishing off.^[7] “For example, domestic brands like Gold Flake Kings (84 mm size), which was earlier priced at Rs 160 for a pack of 10, is now being sold at Rs 300. The same is the case with other brands like Marlboro and India Kings. The prices of imported cigarettes, many of which used to seep in through the smuggling route, have more than doubled. For instance, Esse Lights is now being sold at Rs 2,700 per per carton of 10 packs as against the usual price of Rs 1,300.”^[7]

Moreover tobacco products and alcohol were Not permitted to be sold during lockdown.^[8] According to Tobacco Control division of MoHFW, “States and Union territories have the authority under the Epidemic Diseases Act,1897, the Disaster Management Act, 2005, and various provisions of the Indian Penal Code 1860 and the Code of Criminal Procedure (CrPc) to deal with covid-19”.^[8] Thus states could ban any form of sale and usage of tobacco during covid-19 epidemic. Smokeless tobacco use has already been banned by several states under section 2.3.4 of FSSAI Act.^[9] Indian Council of Medical Research (ICMR) suggested a total ban on smokeless tobacco as spitting can increase the spread of Corona Virus in the communities. Moreover it advised people; to Quit tobacco and lockdown should be looked at as an opportunity to quit tobacco with the help of family.^[8]

Reaction of tobacco companies during lockdown

Further several tobacco companies in India like Godfrey Phillips, suspended manufacture of cigarettes.^[10] However the tobacco companies are giving arguments of economic

slowdown due to lockdown and are looking forward to operationalize their factories as soon as lockdown is lifted.^[11] In an interesting account from overseas; British American Tobacco is working on coronavirus vaccine using tobacco leaves.^[11] This vaccine is undergoing pre-clinical testing where antigen from virus is inserted into tobacco plant for reproduction. It will be then extracted, purified and inserted in to the body.^[11] Thus tobacco companies which are unable to make profit out of tobacco business during this period; are looking for some other opportunities to encash upon during this corona pandemic. There are also reports of black markets of tobacco products becoming very active during this lockdown period in India; although prices of tobacco products sold are getting doubled.^[12] Overall, We may say that availability of tobacco products to tobacco users has been drastically hampered during lockdown in India.

Lockdown as an opportunity to Quit and problem of withdrawal symptoms

One school of thought like ICMR is looking at it as an opportunity for tobacco users to quit. But there is other side of coin also. According to some reports, psychiatrists are getting increased number of calls from people facing withdrawal symptoms like headache, anxiety, stomach cramps, hallucinations and insomnia; due to unavailability of substances they are addicted to including tobacco products.^[13] Clinically, withdrawal symptoms are dealt by prescribing Nicotine Replacement Therapy (NRT) along with behavioural counselling. During lockdown availability and accessibility to tobacco cessation services is questionable. According to some reports, “Quitline” telephonic services such as the one in NIMHANS Bengaluru, are getting increased number of calls during national lockdown.^[14] Previously they used to get around 60 calls a day, which has now reached up to 100 calls per day. The tobacco cessation therapy during lockdown is largely based on behavioural counselling and behavioural coping methods to deal with withdrawal symptoms. The availability of NRT is limited and moreover there is no availability in smaller towns and villages. The behavioural methods include breathing exercises, “Pranayam”, drinking more water, eating fruits, engaging in some hobbies, gardening, walking, exercise etc. But these methods require high motivation. Thus withdrawal symptoms may be a source of additional anxiety during these times of global emergency. This is the reason that some countries like Switzerland, France, Italy and Spain have allowed the sale of cigarettes during the lockdown in their countries.^[15]

Forced Cold Turkey and its success

In India, it is a situation of “forced cold turkey”.^[15] Cold turkey is a method of quitting tobacco suddenly without any help.^[16] This method is different from gradual weaning off method. Cold turkey is a name given to method of quitting tobacco, when the tobacco user decides one day that he/she will quit tobacco from today and he/she quits successfully due to his/her will power.^[16] Some studies have shown cold turkey method to be more successful rather than gradual cut-down method.^[17] However Cold-turkey users were more likely to be males in younger age-groups.^[17] It is argued by studies that people loose motivation in gradual cut-down method.^[18] Counsellors generally advise tobacco users to

set a quit date and take full support of family, friends, professionals to keep the motivation to quit high.^[16, 18] It is advised to cut all supply of tobacco products before quit date and not a single puff or chew after quit date. The time during this lockdown is creating all such conditions to force tobacco users in to cold turkey and giving them an opportunity to quit provided they are willing to quit and their motivation is high. Several telephonic quitlines are available in the country to assist tobacco users by giving them support and tips to manage withdrawal symptoms during this period.

Isolated from peers who are tobacco users

Some experts say that lockdown is best period to quit tobacco use as it is providing ideal environment to quit.^[19] One is that it is forcing tobacco users into cold turkey and second is that it is isolating tobacco users from their peer groups who are tobacco users.^[19] Research has shown that out of many social determinants of tobacco use, one of the important determinant is the influence of peer group who are tobacco users.^[20, 21] This is especially true in case of adolescents.^[21] According to Global Adult Tobacco Surveys, mean age of initiation of tobacco age is around 18 years.^[22] It means most adolescents experiment with tobacco early in their life and become habitual to tobacco at around 17-19 years of ages. During this process adolescents are most influenced by their peer group. Thus lockdown will help in keeping the adolescents away from this influence atleast for few weeks. Moreover family support will be large during this period as most of the people are living with their families during this period. This will create an ideal social environment for quitting tobacco once forever.

Sustainability of Quit behaviour Post Covid-19 Lockdown

We have analysed the need to quit during Covid-19 pandemic and lockdown is a great opportunity or rather compulsion to quit tobacco as the tobacco products are becoming unavailable during lockdown. There is a ban on sale of tobacco products during lockdown and moreover tobacco companies are shutting their operations as labour is becoming unavailable during lockdown period. Further lockdown is providing ideal conditions in terms of isolation from peer group and support of family members. Although withdrawal symptoms are annoying people due to unavailability of daily dose of their nicotine. Availability of Nicotine Replacement Therapy (NRT) during lockdown is also questionable. Thus it is a situation of forced cold Turkey where only option tobacco users have, is to quit tobacco. But how sustainable this quit behaviour will be post Covid-19 lockdown? According to Global Adult Tobacco Survey (GATS) 2016-17, about 38.5 percent of adult smokers and 33.2 percent of smokeless tobacco users made a quit attempt in the 12 months prior to survey.^[22] The survey has also shown that 47.4 percent of smokers were able to maintain quit behaviour for less than a month.^[22] Similarly 48.7 percent of Bidi smokers were able to maintain quit behaviour for less than a month.^[22] Also 49.5 percent of smokeless tobacco users were able to maintain quit behaviour for less than a month.^[22] The survey also tells that 30.2 percent of Cigarette smokers, 28.7 percent of Bidi smokers and 29.2 percent of Smokeless tobacco users; were able to maintain quit behaviour up to 1-3 months but not more than 3 months. Thus majority of tobacco users

were not able to maintain a permanent quit behaviour. Only 22.4 percent of cigarette smokers, 22.6 percent of Bidi smokers, and 21.3 percent of smokeless tobacco users were able to maintain the quit behaviour for more than 3 months. Similar was the pattern during GATS 2009-10.^[23] This shows that sustainability of quit behaviour, once supply of tobacco products will resume post Covid-19 lockdown, is questionable. But anyhow, there will be certain percentage of tobacco users who will be able to maintain the quit behaviour post Covid-19 lockdown. This will help in reducing the prevalence of tobacco use in India which should get reflected in GATS-3. Moreover this lockdown will give a window period when no new tobacco users will be added to the current population of tobacco users.

Conclusion

Thus Covid-19 lockdown will help in reducing supply of tobacco products during lockdown which may translate into certain amount of reduction in demand of tobacco products post Covid-19 lockdown. But supply of tobacco products will resume again to its full potential in a post Covid-19 India and then the tobacco industry itself will act as a determinant of tobacco use in the country. Industry plays tactics to increase its customer base, which also determine the tobacco use behaviour of populations. To conclude, lockdown amidst Covid-19 pandemic is certainly a determinant of tobacco use behaviour in the country; but there is a need to maintain this change in behaviour after the lockdown is over. For this to happen there is a need for tobacco control professionals to act proactively. All the components of National Tobacco Control Programmes need to be acted upon, in consonance with WHO FCTC. Indian Public health institutions like NIHF (National Institute of Health and Family Welfare), NHSRC (National Health System Resource Centre), ICMR (Indian Council of Medical Research) and MoHFW (Ministry of Health and Family Welfare) need to take leadership roles in the country and must include tobacco control in their agenda during and after Covid-19 pandemic. There is a need for inter-sectoral and multi-sectoral co-ordination to address all the structural level determinants of tobacco use behaviour in the country.

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Annexure 1 (i) – Informed Consent

Centre of Social Medicine and Community Health

Jawaharlal Nehru University

New Delhi

Dear

This is to introduce myself. I am Dr Rohini Ruhil, a PhD Research Scholar at the Centre of Social Medicine and Community Health (CSMCH), Jawaharlal Nehru University. I am doing research on Social Determinants of Smokeless Tobacco Use in Indian Population. I am looking at it from public health perspective as well as from social and historical perspectives.

I hope to feed the outcome of the study in to policy and emphasise the need for a serious review. A research of this kind visualises to fill the gap in knowledge about social determinants of tobacco use, that would help all stakeholders.

I wish to seek your help and co-operation in accessing published/ unpublished material and also your valuable time regarding the history and present status of tobacco industry/ policies. The information will be kept confidential and will be used for academic purposes. I thereby request you for time for discussion in order to gain some insights based on your very many valuable years of experience.

Warm Regards!

Yours Sincerely

(Rohini Ruhil)
CSMCH,
JNU,
New Delhi – 67
Ph: 8826171232

Annexure 1 (ii)

Date:

Dear Sir/ Madam

This is to introduce Dr Rohini Ruhil who is a bonafide PhD student of this centre and is working under my supervision. Her research entails studying the social determinants of smokeless tobacco use in Indian population. As a part of the study she has selected your esteemed organisation for some key- informant, in-depth interviews.

I would be grateful if you could extend your help and necessary co-operation for the same. The data collected will be strictly used for academic/ research purposes.

Warm Regards!

Yours Sincerely

Prof. Rama V. Baru
CSMCH,
JNU,
New Delhi – 67.

Annexure 2 – Check-lists for qualitative interviews

The questions were framed on the spot, according to situation and in a language respondent could communicate well. This check-list was a guiding tool for the interviews which were open to record any new information and thus ask any new question.

Annexure 2 (i) – Check-list for qualitative interview from vendors of smokeless tobacco products

1. Since how many years you are into this business?
2. For how many generations have you been into this business?
3. Do you find this business profitable?
4. Are you happy with this business? New questions emerged out of the answer to this general question
5. How much do you earn monthly?
6. What is your daily/ monthly earning from smokeless tobacco alone? Any rough idea?
7. What are the different kinds of products you stock?
8. Which product has the highest sale?
9. In which product is the margin highest and how is its sale?
10. Which Brand has highest sale?
11. What are different types of packaging?
12. From where you get tobacco packs?
13. At which rate do you get?
14. What is the margin on one wholesale pack?
15. Which type of customers comes to you?
 - a. Which gender?
 - b. Which age-group?
 - c. Which socio-economic status?
 - d. Rural/ Urban?
16. Which product and brand is preferred by women?
17. Which product and brand is preferred by young people?
18. Do adolescents/ minors also come as customers?
19. Do you give products to them?

20. Which product they generally ask for?
21. Are you aware of tobacco control laws?
22. Which laws are you aware of?
23. Do you get any favour from tobacco companies?
24. Which kind of favours?
25. Do you get free samples of tobacco?
26. Do you give free samples of tobacco?
27. Do you think of switching to some other business?
28. If government put a ban on tobacco, what are your alternative plans?
29. Do you want your children also in same profession?
30. Do you yourself use smokeless tobacco?
31. Observe point of sale advertisement if any.
32. Observe point of sale warning if any.
33. Observe the appearance of different type of tobacco products.
34. Observe pictorial warning on tobacco packs and their size.
35. Observe pictorial warning on wholesale packs if any and their size.
36. What are the good things about this business and what are the troubles you feel due to this business?
37. Do you yourself use tobacco?
 - a. Smoking?
 - b. Chewing?
 - c. Pan Masala?

Thank You!

Annexure 2 (ii) – Checklist for Questions asked or observed from Industry Personnel

1. Since how many years you are into this business?
2. For how many generations have you been into this business?
3. Do you find this business profitable?
4. Are you happy with this business?
5. What is monthly profit from your tobacco business?
6. What were/ are different investments into this business?
7. What are different types of variable costs and how much?
8. How many employees work in your tobacco company?
9. What salary they take?
10. What is the amount of monthly production?
11. What are the different products made by your tobacco company?
12. Which product is more profitable?
13. Which product has highest demand?
14. What are different types of packaging?
15. What are different market segments you cater to?
 - a. Men, Women, Boys, Girls
 - b. Urban, Rural
 - c. Acc. To Socio-economic status
16. Do you have a specific/ special product for each market segment?
17. Are you aware of different tobacco control laws?
18. Which laws are you aware of?
19. What are different laws applicable to you?
20. Do your tobacco company have any litigation?
 - a. Either filed by your company?
 - b. Or filed against your company?
21. Can you give details about these litigations?
22. Have you diversified to other sectors?
 - a. Which sectors?
23. What are your future-plans regarding your tobacco company?
24. Do you plan to add more products?
25. Which kind of products do you plan to add?
26. Do you plan to completely move out of tobacco business?

27. Do you plan to pass-on this tobacco business to future generation?
28. If government ban tobacco, what impact will it have upon you?
29. Does your tobacco company also do some CSR activities?
 - a. Which activities?
30. What is your chain of intermediaries? To whom you give your products and how it finally reaches to the consumers in urban and rural areas?
31. Do you cater more towards urban areas or rural areas?
32. Where is more demand?
33. Do you have any milder products which are less harmful?
34. Do you convey this message to your customers that these products are less harmful? How do you do that?
35. Do you have any products for those who want to quit tobacco?
 - a. Which products?
 - b. How do you market them? How do you convey this message to customers that these products help quit?
 - c. How much is the sale of such products?
36. Are you happy with your tobacco business?
37. What are the good things about this business and what are the troubles you feel due to this business?
38. Do you yourself use tobacco?
 - a. Smoking?
 - b. Chewing?
 - c. Pan Masala?

Thank You!

Annexure 2 (iii) – Checklist for Questions asked or observed from intermediaries (i.e. distributors, wholesalers, salesman)

1. Since how many years you are into this business?
2. What about your fathers and fore-fathers? How many generations were into this business?
3. From where you take the product? To whom you pass-on? How does it reach to the vendors? What is the whole chain of intermediaries?
4. At which rate do you get products?
5. At which rate do you sell products?
6. What is the margin on one wholesale pack?
7. Do you work for only one company or many companies?
 - a. How many companies and which companies?
8. What all different types of products you have?
9. Is this business/ job profitable?
10. Do you get any free samples also?
11. Do you get any favour from tobacco industry?
 - a. Which favour?
12. Do you sell also apart from passing on to other intermediaries?
13. To whom all you supply the products?
14. In which areas you supply the most?
 - a. Rural/ Urban/ Semi-urban?
15. From which areas the demand comes most?
16. Do tobacco companies also give you some hoardings, posters or other promotional material to supply to vendors?
 - a. Which material?
17. Are you aware of tobacco control laws?
18. Which laws are you aware of?
19. Have you ever thought of switching to some other job/ business?
20. What are the benefits of your current job/ business?
21. What are the drawbacks of your current job/ business?
22. If government ban the tobacco, what is your alternative plan?
23. Do you want your children also in same profession and why?
24. Do you yourself use tobacco?

- a. Smoking?
- b. Chewing?
- c. Pan Masala?

Thank You!

Annexure 2 (iv) – Checklist for questions asked from tobacco control professionals

1. How has been your experience in tobacco control? Kindly give some insights.
2. What is the contribution of, or role played by, your organisation in tobacco control?
3. What were the major challenges in tobacco control?
4. What are the current challenges in tobacco control?
5. How the tobacco industry has been responding towards tobacco control efforts?
6. How do you plan to confront tobacco industry in coming years?
7. How do you see the future of tobacco control in coming years?
8. What do you think whether Indian society is heading towards greater restrictions or hedonism with respect to tobacco use?
9. What do you like to say regarding need for Alternative Livelihoods in tobacco control?
10. Any other insights from your experience in tobacco control?

Thank You!

Annexure 3 – Major Transcripts

P.T.O.

Mr Ashish Pandey
(The Union)

Rohini: I want to ask your insights and your experiences in tobacco control. Like, since how long you are in tobacco control?

Ashish: I guess it is almost 10 years. I started working with the ministry in 2008 as a consultant.

Rohini: What were your experiences in tobacco control? Like, what were the challenges you faced? And what was your role in that? In Ministry and in Union.

Ashish: OK, In ministry I was mainly associated with advocacy related work. Advocacy and Capacity building. My job was related to getting everybody on board and disseminating the information about the new rules, new law, new programme, of course. I was also at that time, supporting the establishment and expansion of National Tobacco Control Programme at the state level.

Rohini: Delhi state

Ashish: No, Across India. At that time we organised the first National Capacity building workshop on tobacco control and then we also organised five regional workshops, some state level workshops. So..... That was the first wave of capacity building in India, on tobacco control laws.

Rohini: So what kind of training you were giving in these workshops?

Ashish: It was mainly focused on the National Tobacco Control Act. It was very new. Nobody had a clue about it at that point of time. It was recently notified.

Rohini: COTPA, you are talking about?

Ashish: Ya! That is National Tobacco Control Law.

Section 4 came at that time. It was notified in 2008 only. National Tobacco Control Programme was rolled out in 2007 and 2008 as a pilot phase. Then second phase in 2008 and 2009. So components of National Programme was also being tested, being expanded. The issues like cessation services, issues like alternate livelihoods, alternate cropping. Those issues were also being highlighted in those capacity building programme.

Rohini: In alternative livelihoods, like very less work has been done. So do you have any information about that, like, what all has happened?

Ashish: As you said and I completely agree with that, very miniscule work has been done so far regarding alternative livelihoods. But I would say that very recently the WHO and Government of India has started working on this and especially focused on Bidi rollers. And the labour ministry has come up with a comprehensive plan, including trainings and support for other vocational work. They have started working for five states and I think it has been expanded in all states now.

Rohini: So... Ministry was working in co-operation or co-ordination with other ministries.

Ashish: Yes..... As I said, they were working with labour ministry for alternative livelihoods. They were also collaborating with ministry of agriculture for..... in fact, they have been working for a long time, to come out with some alternative cropping pattern. My understanding is that we have not come to the benchmark yet.

Rohini: So..... here in Union, like, What is the role of Union? What was your experience in Union?

Ashish: OK, Union per say, has only one agenda in hand i.e. support to the National Tobacco Control Programme. So we are working very closely with the central government and state governments, for developing and utilisation of implementation mechanisms, at state level. We provide capacity building support to the officials, programme managers and other stakeholders; and thereafter we provide technical assistance for onsite or offsite implementation of the National Tobacco Control Programme, of-course, including the enforcement of National Tobacco Control law i.e. COTPA, different provisions of COTPA. But to support this work, at times, we also need to work on new issues, including identifying the newer challenges. We also work to protect the progress made so far by dedicated programme managers and seniors from tobacco industry's vested interests. So we try to highlight that how tobacco industry tries to derail, delay, even at times put everything on back burner.

Rohini: Hm..... Anything you want to highlight?

Ashish: So..... I would like to say, that in India, still tobacco control is at very early stage. And how it's a long fight that we foresee ahead of us.

The major challenges in India, the one is of-course the affordability and availability of tobacco products. We really need to work on it. There are so many varieties of tobacco products, which make them quiet affordable. There is a kind of acceptance within society about tobacco use. They don't see it, lets say, as bad as alcohol. So.... We work on denormalising the tobacco use within society. The capacity among government system is still very low. So..... We the government needs to work on capacity building programmes of programme managers.

The last, of course, unlike other public health challenges, the tobacco control, we have the industry which is backing up the tobacco promotion and we need to be very cautious about it. We need to work and plan our strategies according to that.

I think..... That's all.

Rohini: Thank You! Thanks a Lot.

Amit Yadav
(Advocate)
(Smokeless Hub, NICPR, Noida)

Rohini: Sir, My PhD work is on social determinants of smokeless tobacco use. And one of the chapters is regarding policy dynamics..... I mean dynamics between tobacco control policy and SLT industry. The response of SLT industry to that. So..... my supervisor and I were discussing what are the regional and national level associations of SLT traders, wholesalers, producers; and what role they play. Can you tell your experiences regarding that.

Amit: See..... There are not many that are publicly known as smokeless tobacco associations but I know there is one Smokeless Tobacco Federation of India. That has been at the national level, very vocal about tobacco industry's opinion about smokeless tobacco regulation. They have challenged almost all smokeless tobacco control provisions that has been notified or supposed to be implemented. You would find many plain websites of them which is hardly updated but they have their presence. They are not visible very much but they in terms of, go to court, go to policy makers' doorstep and try to put their point that regulating smokeless tobacco will leave millions of people jobless, you know, retailers, farmers; and those things they raise. It is also not very organised. Even the tobacco industry's front groups, they create it as per their choices. So you would find farmer's group when there is something coming up; so they create a farmer's group. So they would create retailer's group to file their petition in the court. So they do it as the occasion arises. They put together couple of people and form the association. That's how they do. Yes, there are also established smokeless tobacco associations. One is this smokeless tobacco federation. They work with local trade associations in terms of retailer's association, chambers of commerce. So they take those kinds of associations and then get their say or get petitions through them. Because it is not product which is socially accepted as a welfare good; so they cannot be creating a permanent group which talks about using smokeless tobacco. They cannot do it. So what these groups do is, they are there only when they find that they are threatened, there is a policy that is going to affect them. Or which is going to reduce smokeless tobacco, then they activate these groups and they go to two places or three places maximum. One is the court and another is to the policy maker's doorstep and third is the media. So these are the major places they go. I have not seen smokeless tobacco federation going and creating awareness saying smokeless tobacco use is good or bad. So they don't have that kind of, in terms of interventions to the populations or interventions with any stakeholder's group. I have not seen but one thing that is happening in emerging products like ENDS (electronic cigarettes) and others. They are more organised and they are having their national and international consultations, meetings and trade fairs and all those things. They are having that because there is a policy lack. You know, you don't have express ban or express regulation of ENDS products like e-cigarettes, heat not burn or vaping products. They are not expressly banned or regulated. They are having these vaping seminars or meetings. That was also intervened by stakeholders like Government of India and civil societies. And I think the vaping

conference which was supposed to held in Delhi was postponed. They tried to do it in Noida, it was again cancelled, so they could not do. Recently I came to know through papers that they have submitted representation to the health minister in the form of pamphlets that so many research papers say that e-cigarettes are safe and help in quitting tobacco. But for smokeless tobacco they cannot do it like that. Tobacco advertisement is prohibited. You know tobacco use is harmful, ill effects are there, so they cant do that. So what is the intervention? Intervention is that they go to policy makers silently and tell them like e-cigarettes. So that is how they are diverging. They work through front groups. So even if they have smokeless tobacco federation, they have to file petitions and they have to raise the voices. They will create a farmer's group and will file a petition through them. They will create a retailer's group and will file a petition through them. So that is how they operate. Undercover operations..... basically front groups which are funded by tobacco industry.

Rohini: Next, can you tell about major court cases that you faught regarding SLT.

Amit: I am not active practising lawyer so I have not faught any cases myself but there has been several cases on smokeless tobacco. This had started way back like in 1992.

Rohini: Murli Deora?

Amit: Murli Deora is on smoking. So..... There was petition on use of tobacco in toothpastes, toothpowders. So they had in all those are sold as herbal toothpowders or natural toothpowders. So they all had tobacco in them. And they were sold, because COTPA was not there. Then people who knew this is going to affect the people's health; so they filed petitions and other things. In the meantime, even government came up with a notification saying that use of tobacco in toothpastes is banned under Drugs and Cosmetics Act. Then they went to the court. I think the Rajasthan high court was the first to ban, in terms of say that the order is fine, the notification, and you should ban it. Then they went to the Supreme Court and the Supreme Court also upheld that use of tobacco in manufacturing toothpowders is prohibited.

What still continues is..... Gul. Gul Manjan, that continues to be sold as powder, so they don't say it as toothpaste or toothpowder. Now they also put pictorial warnings on Gul. Some have, some doesn't have. So they are now putting it as a tobacco product to say that this is another form of tobacco product which people are using. For illiterate people, this is another form of toothpowder.

So... this was the first thing that was banned. Thereafter by mid-late 90s the Gutkha menace was too much. Looking at Gutkha menace, several states banned Gutkha and Pan Masala both. Because Pan Masala also have this Magnesium Carbonate. But these actions were taken under the PFA- Prevention of Food Adulteration Act. And that does not give you as much power to do it at the state level.

So all of these were appealed at the Supreme Court and Supreme Court decided that you can do it at the state level because power given to state is for emergency, dealing with

emergency, you know. That if someone is selling adulterated milk or adulterated sweets or adulterated water, like that, then you can ban immediately, immediate action, it was for one month primarily. When Supreme Court, in 2004, decided against these bans, then the government came up with amendment to the rules saying that, so they specifically put as...., no food product shall have tobacco or nicotine as ingredient. So thereafter what happened, cases went on when the industry said that this is against the PFA. In the meantime, government was also amending PFA. A new act was coming- FSSAI. It became a law in 2006. Lots of work was to be done under FSSA. Standards were to be established. Rules were to be made. Which products will come under it and which ingredients will come under it. What will be the specifications? What will be the colours. So in all of that, it took 5-6 years. So by August 2011, rules started coming, which included this provision which was an amendment to the PFA. Saying that no food product shall have tobacco or nicotine as an ingredient. Now looking at that, several states again notified that provision and banned Gutkha. Several states said that flavoured, scented tobacco was banned. So this again was challenged in different high courts. Also eventually in the Supreme Court. Supreme Court said that no you have to ban it. States which do not ban it, should give us a reason why they should not ban it and why we should not issue an order to ban it. So... today also, in terms of, all states in the country banned Gutkha, but then industry again circumvents. So they started twin pouches and separate pouches and all of those. The matter is still pending in the Supreme Court.

Rohini: And they have to ban it yearly na! States.

Amit: Yes, there is a technical problem. You don't have to renew it every year. The rule is a central rule. You only have to implement the law. So..... at the best what you can do is, you can say that this rule of government of India, is applied in this state from today. What the problem is, that state governments, the food commissioner or even the governments, what they are doing, they are notifying the provisions again, under say different law. In new law, they have section 30, which provides them power to ban any product for one year. Previously it was for one month. So this is one year, for again, for emergency. So extended power has been given to food commissioner at the state level. But this rule which we are talking about is a known law. So you don't have to, again, use your own power and start notifying it. So it is irrelevant. But the states have been doing it. Why this is happening is because enforcement of any law in this country has to be done by state governments. So state machinery feel more comfortable with its own orders, with its own directions, and with its own improvements or disimprovements, what you can say. They want to do that. And that's why I guess, they are using section 30. I think, there are couple of states which have not done it. Section 30 of FSSA.

Rohini: So what is industry argument in challenging this law?

Amit: They say that it is a tobacco product. Tobacco is a legal product and you cannot ban it. So the technical or the scientific argument is, if you are regulating food, if you say that something X is a food item, now science says that, is hazardous to health. So you now say that, this as an ingredient, will now, not be used. So would you allow this ingredient, which

you are saying not be used for human consumption, to be used independently. Will you do that. No!

Lets say there are several drugs which were gradually banned. So lets say, assuming that Nimusulide is banned. And we use this salt and sell it by different name, say.... Namol. No we cant do it.

Rohini: So industry says.... Ban the tobacco completely.

Amit: No! I am trying to make you understand a difficult problem here. Tobacco is regulated under COTPA which allows sale of tobacco. It does not, in any of its sections, say that sale of tobacco product is prohibited. It prohibits sale only to persons under the age of 18 years. COTPA was formulated in 2003. FSSAI was formulated in 2006. Rules came in 2011. Implementing from 2012. Today we understand that tobacco is really harmful and it is killing Indians. We think that it should not be used in food as an ingredient. So you mix Supari, Elaichi, Kattha in it and eat it which is wrong and is a contaminated food. So something which contaminates your food and kills you, independently also kills you.

And in smoking, you are not eating it. It is like injecting a drug. The habit of smoking cannot be saying in food eating. Cigarette is not food. But if you are chewing tobacco, it is food. Like Naswar, if you are putting something in your nose, you cant say it is food. That will go into Drugs and Cosmetics. Like you use any nasal spray or any nasal medicine. It will go in to Drugs and Cosmetics because it is not food. You are taking something through a different means of natural consumption. So if you look at, from that perspective, chewing tobacco should be, like we say natural corollary, like you are saying should not be taken as a food, allowing that to be taken independently is a contradiction in itself. Now, your COTPA says that you can sell. COTPA is an old act. The discussions were done in 2003. Now you have a new law, which is enforced in 2012. Now, you are sitting in 2018, with new evidence, new regulations. You cant go back and take a regressive position in law, that you cant take. That is why, given that current understanding, using of chewing tobacco, per say, should not be allowed. It is against FSSAI. That is the whole issue.

So the industry takes its own preferential position. And you bring in to people, issues of livelihoods, people working and jobs and things like those. So it becomes a difficult thing to resolve. But I think if you only look at health, well-being and welfare of the people. As a welfare state you need to decide on the good of the people. Then obviously you cant allow use of chewing tobacco as well.

Rohini: And what are the future course of action you must be planning about, as an organisation?

Amit: In 2011, when these regulations came, there were some national consultations. In that consultation itself, people have said that smokeless tobacco should be banned. Till such time it is banned, so it was seven years back, there should be stronger regulations including the one it should not be used in food. It has been seven years that you have

regulated it as a food, now you should regulate it completely that tobacco should not be eaten. It is a natural next step that use of smokeless tobacco is prohibited or banned in the country.

You cannot compare.

You cannot say that you are allowing cigarettes and bidis. That is a different set of product. That you don't eat. In our country only 14% people use smoking forms. In that also, 9% are the one who use cigarettes. Rest of it is 26% users or 28% users are smokeless tobacco users.

It is like SC ST reservation. Schools are there for everyone. Jobs are there for everyone. But still SC ST OBC reservations are there. Why it is like that. It is the same argument for SLT ban. The more problem is due to SLT. We are already oral cancer capital. We are not lung cancer capital. More people are dying from oral cancer than lung cancer, in India. So you should be worried about , what is the priority problem. In no way, I am saying that smokeless tobacco should be banned and then promote smoking. No not at all. It is easier to regulate smoking industry because it is an organised industry. It is easier to tax them. And it is a licensed product. License is given to manufacture cigarettes that how much cigarettes you can manufacture. There is no license for SLT.

Rohini: So they don't take license for manufacturing SLT products. So... like these big industries, say DS Group, Kothari Group; do these are also manufacturing without license?

Amit: Yes! They only have to register that particular brand. They have to take permit to sell their product. They have to take some clearances. But how much they have to make, they decide themselves.

For cigarettes license is given that this year your company will manufacture, say 20 lakhs or 50 lakhs sticks of cigarettes. You can manufacture only that much. That too you have to take license in advance. SLT have to take permit for opening their shops; other clearances like fire permit, police clearance, all these.

I will manufacture and sell SLT products from tomorrow. That I can decide right now. But I cant decide for cigarettes. Its like arms manufacture. You cant manufacture arms. You have to first take license. You should be a licensed manufacturer of arms. But for smokeless tobacco you don't need. You need not be a licensed manufacturer of SLT.

Rohini: So... there must be a large number of unorganised industry in SLT.

Amit: Whole SLT industry is unorganised.

Rohini: There might be many who have not registered their products.

Amit: Sure. Even manufacturers which you are looking like established manufacturers, they must be selling much more than their capacity. Because it can just be manufactured from your house.

Rohini: Is there ban on SLT at present? How many states?

Amit: In all states, there is ban on Gutkha. Now some states have also banned Pan Masala, flavoured tobacco.

Rohini: Maharashtra

Amit: Maharashtra has also banned Supari.

If you will take a progressive understanding of the law, then even all kind of SLT products are banned which are orally ingested.

Rohini: But it sells

Amit: Yes! Everything sells. Even Gutkha sells. Problem is enforcement of law or implementation.

Rohini: Is there provision of some punishment if caught selling?

Amit: Yes! FSSAI does have. Good punishment. The problem is that Pan seller is not convict but as he mix Zarda in it he becomes a convict. There is heavy imprisonment. Heavy fine. But problem is enforcement. What action will you take against a Pan seller.

Rohini: Anything you want to tell about SLT industry?

Amit: Look! Industry behaves the same globally, regionally, locally. Because it is the nature of industry. And it does not change. It sells a product that kills people. Like a carnivorous animal, be it a lion or Cheetah or Wolf; nature will be same. Its just that.

It is more prominent and prevalent in India as a SLT industry because there are more people who use. It is more unorganised in terms of its presence; same as bidi in India. Number of tobacco users in India is equal to ten Australia. You compare like that. We have 20 crores SLT users in India and population of Australia is 2 Crores. Which means ten Australia use SLT within India. So if you value human life, then you realise what is the enormity of the problem. I think, eventually, two things that sell, now it is affecting minors, how it is spoiling the future generation and opportunity cost we are paying for it. So this if you will write that where will we go with tobacco and without tobacco. If we will ban it, where will we go in public welfare, social welfare, upliftment, education, health. And that would be important.

ThankYou!

Rohini: ThankYou Sir.

Dr Jagdish Kaur

Dr Kaur is Regional Advisor in World Health Organisation SEARO – Tobacco Free Initiatives (TFI).

She has been CMO (Chief Medical Officer) in National Tobacco Control Programme, Ministry of Health and Family Welfare.

I asked her regarding her experiences in Tobacco Control. The challenges and barriers.

Following is the transcript –

Dr Kaur –

First there was Cigarettes Act of 1975 in which warning was there on cigarette packs. But its effect was not so much. The initial surveys reflected that Bidi smoking prevalence is highest followed by cigarette smoking and then smokeless tobacco. But in 2009-10 main survey GATS revealed that smokeless tobacco is the main problem. Before that in 2003, COTPA (Cigarettes and Other Tobacco Products Act) was enacted which covered all tobacco products. It was a comprehensive act which was an advantage because in other countries, the laws are limited to only few tobacco products, mainly cigarettes. That time country just ratified WHO FCTC and was a part of FCTC negotiations; so the policy makers knew about various provisions of FCTC and they included these provisions in COTPA.

After implementation of COTPA Act, the tobacco industry filed many court cases against government. Therefore the implementation of act was a major challenge. Government was not prepared for it. The tobacco industry challenged the law in various high courts across the country. The government had to run from one high court to another. But slowly- slowly judiciary got sensitised and many provisions came out from COTPA as government won the court cases. Another good decision was to combine all the high court cases and put them in one Supreme Court. There were more than 75 court cases. Then pictorial warnings, smoke-free laws, advertisements; every one-one thing kept coming out of the court cases, and getting implemented. So we got implemented all the provisions – Section 4, 5, 6, 7 etc. Except that labs were not there to test the tobacco contents. Now the government has come up very advanced stage – the process of establishing labs. Then they will be able to test the contents. The court is also pressurising that contents of tobacco products such as tar, nicotine and their percentages should be mentioned on the tobacco products. So if labs will start testing the products, it will also be initiated.

The India is doing very well. They are now introducing large pictorial warnings. Last month i.e. May 2018, they have ratified a protocol on illicit trade.

Earlier there was not much political support but now slowly and slowly political support is there, judiciary support is there. NGOs and activists are working in tobacco control. When graphic warning were to be introduced then industry approached ministers, MPs, even prime minister and president. Like tobacco farmer's association and bidi

association instigate them. They claim that our livelihoods will be lost. They go to all political parties and tell them that if you introduce these laws then our livelihoods will be lost. They oppose the WHO efforts and government efforts like CoP 7 (Conference of Parties meeting) held at Greater Noida in 2016. But they are misguiding and many of them shifted also. We have evidence also that farmers are shifting to non-tobacco crops and bidi rollers are shifting to other skills. Thereby industry is getting jittery and they are introducing new products.

E-cigarettes and now they are introducing heated tobacco products which they call 'heat not burn'. They are now in the process of introducing "Iqos". This is a tobacco product in many Asian and European countries. That comes by various names. The government is now strictly implementing smoke-free laws. So this product does not produce smoke. You just heat it. It is heated and you smoke it. So you can use it in the public places. As the government is implementing laws, the industry comes with new products. They are also introducing various kinds of smokeless products. Like when Gutkha was banned, they introduced Pan Masala. Many brands of Pan Masala was tested and it has nicotine. They are also advertising it. The law of ban on advertisements is beaten by Pan Masala advertisements. The brand is same. Same brand is producing Pan Masala and same brand is producing Khaini and Zarda. So they are advertising their brands. When someone or kids approach kiosks for Pan Masala; then they are also given these tobacco products of same brand especially when Pan Masala is not available. So the industry is beating the very purpose of ban on tobacco advertisements. So it is a big gap. It is a loophole.

Another loophole is Point of Sale advertisement. The point of sale advertisement is allowed. The industry take advantage. They just advertise on the kiosks. So point of sale advertisement is a big loophole. The smoking is allowed at airports in designated smoking rooms. They have a shop at International Airport T3 just outside the designated smoking room, which is unlawful. They allow designated smoking rooms at restaurants, if they have more than 30 seating capacity. Also in hotels if you have more than 30 rooms. The new Shisha bars are also coming. Youngsters are lured to Shisha bars.

India is a high burden country for tobacco as well as TB. So they have to control the tobacco in order to control TB epidemic.

Ms Monika Arora

(PHFI)

Rohini: Mam, I want to know your insights regarding policy dynamics and political dynamics, like FCRA license was revoked for tobacco control activities. So what was the political dynamics about that? What is the status now?

Monika: See..... In terms of ... particularly looking at smokeless tobacco, not much work has been done on smokeless tobacco in terms of industry tactics. There is lot which has been published regarding industry tactics when it comes to smoking forms. Smokeless tobacco..... It has not been very documented. So we don't know what is going on. But yes there has been a lot of opposition from them in terms of..... when the Gutkha ban was announced in 2012. At that time there were lot of advertisements by tobacco industry in newspapers that.....

Rohini: Hm.. Save our Livelihoods...

Monika: No! No! that was around COP7. Smokeless tobacco.... They were largely saying, why they have been discriminated from smoking forms. So they wrote those kinds of ads. They ran these ads in the newspapers and they opposed this ban. In terms of violation of law, SLT industry continues to violate the advertising ban, because they have their products in surrogate form. So..... There are many brands which have both tobacco and non-tobacco forms. They advertise in both print as well as electronic media, saying zero percent tobacco for those products. So we have those kinds of you know industry dynamics going on. In terms of FCRA issues..... we can't say which industry or what led to it. But definitely from newspapers reports whatever was evident was that tobacco lobby was strongly behind it. Since COP7, they were advocating that foreign money is being used to fund NGOs and the tobacco control work. But the surprising part is that even if we think that foreign money is used for tobacco control activities, it is very much in line with National Tobacco Control Programme. Implementing COTPA which is the national law, itself is part of National Tobacco Control Programme. So all activities are very much aligned to what Government of India has signed as FCTC and agreed in COTPA. So..... what is wrong in implementing (whether it comes from foreign funds or domestic funds). So that is the whole confusion and I think..... because industry has been talking to other ministries except health ministry (because obviously health ministry would not be buying their arguments). So probably industry is talking to all other ministries which may not be sensitised enough about the whole epidemic of tobacco and how tobacco control is so evidence based. That is where they see that their arguments be bought.

Rohini: ok. And right now is it still in the revoked status?

Monika: Like..... Other NGOs, we don't know whether their license was cancelled or in some other status. But for PHFI, we know that it was not cancelled. There were some technicalities, it was not cancelled. But now it has been reinstated.

Rohini: OK

Monika: So..... But for VHAI and others, I don't know whether it reinstated or what forms it remains.

Rohini: OK..... And what role PHFI plays in tobacco control policies? Like..... it plays a major role. Like..... Dr Srinath Reddy was very active since that WHO FCTC.

Monika: Sur..... Sure..... If you remember the Reuter's report of..... exposure they did of Phillip Morris International. I don't know if you have read that. If not, it is a series of articles you must read. It is by Aditya Kalra. So he did exposure of their internal documents – Phillip Morris International. In that they had in their presentations, one of the slide, which included eight tobacco control champions from Asia including Dr Srinath Reddy, Bungnon and few others, and Dr Reddy's picture in that presentation was circled with Red. So.... Kind of conveying that, they were doing very strategic targeting. So definitely industry is behind many of the things. Surely PHFI has been actively contributing to tobacco control research. The issue is that because we work closely with the government, all the research we do is what leads to programmes and policies. That is the whole purpose of doing research. In terms of our contribution, we only being doing things which ministry or Government of India told us to do. For example, if it was National Tobacco Control Programme, it was PHFI which first tested the National Tobacco Control Programme and wrote guidelines. So we tested in Andhra Pradesh, Gujarat; again in partnership with state governments. So this was something that government told us to do and we implemented it accordingly. So all our work has been what Government of India requested us to do as research; show evidence, write guidelines for them and that's what we have been doing.

Rohini: So Right now what are the major challenges in implementing tobacco control law and in banning SLT, what are the major challenges?

Monika: Seeing from country perspective, the law is in place. The major challenge is its implementation. Implementation is still better in urban areas but in rural areas, we not even know what is the level of implementation? Second is, nobody is evaluating the impact of this implementation, which is very very important to capture. Like, implementation science research is currently the need of the hour in tobacco control in India, which is not happening, because we will be able to understand what is happening only when we know what is working and what is not working. Only then Government will be able to do some mid-level correction. Also you know in terms of scaling up best practices. For that we need this.

Rohini: Anything else you want to add in terms of challenges.

Monika: COTPA itself needs amendment because when COTPA was written, at that time, some of the gaps were there. Like there is no 100% ban on smoking at public places; it allows designated smoking areas, which is not a best practice. So some of those

provisions need amendment. And..... in terms of pending issues.... India still needs Article 5.3 guidelines for the country, because we have signed WHO FCTC but we still do not have Article 5.3 guidelines, which is for the government, so that they protect themselves from any interference from the tobacco industry. So those guidelines have been adopted by about seven states but we do not have National Guidelines or code of conduct.

Rohini: Thank You! Anything..... You want to advice.

Monika: You should compare GATS 1 and GATS 2 to see if the epidemic has moved more towards the people who are poor, uneducated or the benefits of policy are more towards urban dwellers. Like I was doing comparisons on cessation. So cessation rates have been higher among urban areas as compared to rural areas; whereas tobacco use is more in rural areas. So there is inequitable benefits of policy we have seen in the country. So if you are doing this in your analysis, do compare GATS 1 and GATS 2, to see how the trends are going?

Rohini: Thank You!

Mr Pranay Lal

(The Union)

Pranay: Do you have a structured questionnaire?

Rohini: No. No structured questionnaire. I want your insights and experience in tobacco control.

Pranay: So the first question regarding social determinants is like – Why is it that people in India chew tobacco?

Rohini: That I have done my homework on that. First of all lot of cultural factors.....

Pranay: First of all I don't want you to make a mistake that it is cultural.

Rohini: OK

Pranay: It is a big mistake. The reason is that if Columbus found America in early 1500s and he came back with the tobacco leaf. It came to India in 1640 in the courts of Jahangir and then he banned it. Then in 1700 it started growing in parts of India. Now in a country which is 10,000 years old in terms of civilisation; these 300 years mean nothing. In fact, that you say culture. So what is culture? That's a larger question. You can read the works of 'Edward Saeed' or 'Ramila Thopar'; people like them says 'what is culture'. For example, people says that, 'it is today's culture that children remain busy with cell-phones'. That's a common term we use, but culture is not that.

Rohini: Ya! That is lot of industry induced also.

Pranay: Ya! I mean people try to say that it is traditional or cultural, but that is not the right way to think about it.

So.....I would like to say that please do not use this word because people in future will quote you and say that 'Rohini Ruhil's PhD thesis – the landmark thesis and her subsequent papers with Rama Baru said that "tobacco use and chewing of tobacco is cultural"'.
"

Rohini: No, Actually when Industry, the European industry, when they introduced tobacco, they introduced it in the court of Akbar.

Pranay: No Jahangir

Rohini: No, Court of Akbar

Pranay: No Jahangir banned it.

Rohini: Yes Jahangir banned it but Akbar was the first one to smoke it. Regarding smokeless tobacco, the use of 'Paan' was very cultural and religious but that was without tobacco.

Pranay: Correct.

Rohini: Noor Jahan..... Noor-Jahan was the first where industry introduced tobacco in the 'Paan'.

Pranay: But there was no industry at that time. See..... the first global tobacco corporation was B.A.T.

Rohini: Hm.....

Pranay: There is a famous book called 'the first multinational in the world'. OK. It is on BAT. The British American Tobacco. It was a joint venture of two national companies.

Rohini: Yes

Pranay: During that time only, the Dutch Anglo company 'The Lever Brothers' came. Two brothers were in two nations, so 'The Lever Brothers' came. So like this many conglomerates became, because countries were no more fighting with each other. Like America and British came together. They made a global corporation. Similarly, Dutch and Britain came closure. In fact, the first corporation that happened was BAT. There are lot of books on BAT. But..... Industry did not come till about 1800s. BAT came in to 1800s. So don't use the word 'Industry' till that point. And that was only for smoking, because BAT was not interested in chewing tobacco. You must understand. Have you read my paper on Bidi?

Rohini: Yes.

Pranay: Same is with SLT. So now you can write a paper on 'History of SLT'.

The first recorded place where tobacco plant was planted was in Goa. It is a commemorated place and that is written in Portuguese. First plantation was happened in Bihar. But there was diversity in India. So you got 9 geographic zones. Vindhya demarcate the Indo-gigantic plane. Arawalis define the Thar Desert. Then you got sub-himalayans and Himalyans region. Then you got the North-east. Then you got the Bengal. You got the Western Ghats, Eastern Ghats, Deccan, Central Indian Penninsular. They are different in terms of soil. The tobacco plant travelled across all these regions. It was very successful in Deccan. Then it grew in North Kerala. There is actually a record that how the plant travelled across the country. Like, there is a belt from Nandurbar to Kolhapur. Another belt is Anand-Mehsana-Gujarat-Banaskantha. I am talking SLT.

As a result, see....., even in smoking varieties FCV (Virginia is now no more because it is not so favoured; even in Virginia we have four varieties. In America there are only 2. The country which gave birth to Virginia has only 2 varieties of it and why we have four varieties?)

Rohini: Climate conditions

Pranay: Soil conditions. Soil conditions, Climate conditions, and harvesting practices. You must remember that all plants are very very versatile in India. I give you an example. You know Broccoli?

Rohini: Yes

Pranay: Cabbage

Rohini: Yes

Pranay: Cauliflower

Rohini: Yes

Pranay: Do you know, all of them originated from Mustard.

They have been cultivated and created by people in Europe. Cabbage came from Germany. Cauliflower came from South France. Broccoli comes from North America.

Just like Dogs. There is only one ancestor to Dogs i.e. Wolf. Same thing happened with smokeless tobacco. Different soils, different rainfall, different agricultural practices; with tobacco was done in India. Now my paper on Bidi will tell you; how discovery of Bidi was accidental.

Rohini: Yes Yes. The labourers used to roll the left-over tobacco in a leaf and smoke it.

Pranay: Yes! In any leaf which was available. Sometimes banana, sometimes Bahunia. But one day they came to know that Tendu leaf is good, it does not crack. That is the accidental discovery.

Same thing with SLT.

Now what happened is..... you know, most common disease in world?

Rohini: Tuberculosis

Pranay: No, It is Dental Caries. Dental caries is a disease. Right.

In Ancient times, because we used to eat the way we were, especially sugary foods; we had deep rooted infections. Tobacco used to provide that relief. If you look at the level of Alkenes. What gives you relief? Three compounds that gives you relief: Opioids, Alkenes and Ketonenes; which you can apply topically. Alkenes levels are highest in tobacco and very low in Areca nut also. People used to take some relief from Areca nut also, but it was contributing more as shards of betel nuts will go and embed themselves in-between the gums. It will give you more pain. But tobacco leaf, being soft and high in nicotine levels and alkenes, would give you relief. So now it became routine to give a tobacco leaf to children as well as adults for toothache.

Rohini: Yes! Till today people believe that tobacco is good for oral health.

Pranay: Correct! Again it is an accidental thing. This is the reason why we have such diverse type of tobacco use. Both, in smoking and chewing. That is geographic diversity that created a monster of this kind. Every region has its own monster. So.... Anybody saying the word traditional and cultural to me; find it little problematic.

It is not Sati Pratha. Sati is recorded in early 900 AD which is documented in a painting. That is we say that Sati is traditional to us. That was also in some pockets across India.

That is, Please don't say that tobacco is traditional to India. It seems as if everybody from Kashmir to Kanyakumari; and from Kuch to Kohima; everybody was taking tobacco. Our traditional tribal communities do not know about it; they do not cultivate it. The Chenchus, the Yenadus, the Jarvas, the Rajshahis do not know tobacco. It has reached now, in the last 15-20 years. Earlier they did not know. The Penetration has also not been so much. It is only locked up in pockets. It became prevalent. If you begin your argument from here, it is the same argument. I am saying purely from anthropological perspective, even archaeological perspective. In the sense, when did the plant come and how did it dispersed through India and what were the uses when it disbursed. It is the logical way to look at it. It is just like saying when washing machines reached Ludhiana, one of the other uses they did was to make Lassi. It is a famous case study. Whirlpool.... When they started selling the first big washing machine, the people said that we have domestic help to wash clothes. We will make Lassi from this machine. That's a famous example. Gurcharan Das has written in his book.

Thus the whole cultural part, I hope you handle it in a way that is logical. Don't play in the hands of people who say that even my grandmother used to eat tobacco. But grandmother of grandmother did not eat it. And even her grandmother surely did not know about it.

It is not like Diwali ki Pooja. That's cultural. This is not cultural. So you need to be very clear when you say something which is cultural. When it got into practice, it got into medicinal practice. It was part of some practice which it got embedded into. For example, I say this very often that 'Dum Aaloo or many of those things are not traditional to India, because Aaloo came in 1720s in India. Aaloo was not there before that in India. So how is it traditional? We gave Aaloo a new taste and it became our dish. So let us not say traditional. It is something which came much later. It got penetrated into our daily use but it is not part of our handed down tradition or past heritage. You show me any archaeological painting of cultivation of tobacco. I can show you of sugar-cane. Ancient paintings: from Babarnama and all those other things. You can't show me, so how is it traditional, which have not embedded in your art.

Now Gulzaar is saying, "Teri baton mein kimam ki khushboo hai" or "Bidi Jalaile". May be songs in 1930s – 40s also had Bidi, but not earlier. If your culture is starting from 1930s, then it may be. But we are not a shallow western civilisation, in the sense that your country is only 200 years old, like America. The white history of America is only 200 years old. For them, the American Indians who live there, are not part of their history. So you need to correct yourself. Because as a scientist, you need to take a right perspective.

You need to build the right perspective. So if you gonna use words like traditional, heritage, cultural; then there are two dangers. One, you are being dishonest to Science. Two, you are being playing in the hands of policy makers. It was part of the 'Jugaad' thing. You have to be very careful that this was only part of the 'Jugaad' thing.

Like 'southern light soil' which is orange coloured, there leaf is also of orange colour. Tobacco which is grown on 'Laterite' soil, is dark brown. Tobacco grown on 'Loamy soil' is of purple coloured. So, from one plant, so much diversity came in to India. So what I want to say here is that plant evolved into different varieties. OK. But it came from one stock. As the composition in the leaves changed, its use changed. Then people found that some of those leaves were desirable for chewing, others were better for smoking. Even within a single plant, they know that lower leaves, the older and mature, had more phenols and alkenes, so it is better for smoking and bad for chewing.

Because American Indians smoke, they don't chew. In Portugal and Spain also, people don't chew, they smoke. So chewing habit got into India, Burma and Indonesia. They don't chew in Africa also.

Rohini: No, In America, they chew also. In Washington DC, once the prevalence of chewing tobacco was very high.

Pranay: That is what, I tell you. So the Dutch settlers, who came there, also had a habit. There was a company called Borkum Riff. This is global history of tobacco. Why Snus is prevalent in North Europe and not in the south. The variety of tobacco that are there, some of them can be stored in certain ways, some of them are wood cured, some of them are not wood cured. The settlers, who went from northern Europe and settled in East part, the main Washington to Jersey and Road islands, they chewed. Yes, it is in the late 1880s. OK, but not before that. But it was a small segment, in the sense that, compared to India that was nothing. They were not growing it the way we were; although they were growing it in homesteads, it is not the way that we did growing. There was only monoculture; one variety or two varieties. But in India, there are so many varieties. Motihari tobacco, Pusa Variety, Nandurbar.

I would recommend that you travel to Mandis. Go to Kolhapur Mandi, Charoathar Mandi, Pan Dariba of Banaras, Pan Dariba of Purani Delhi. I suggest that you go to these traditional markets. Go to the oldest shops and ask them to tell about their fore-fathers.

Rohini: Yes, I went to the Naya Bans area.

Pranay: You have got such a nice opportunity to travel across India. Old market of Nellore, Chennai Market, North Bengal fantastic, Bihar, Motihari, Bakimpur-kheri UP, Mainpuri, Itah, Itawa, Kanpur. I think if you want to understand the whole game and how they exploited it, you will have to now plan the evolution of whole industry. I think it is a fantastic opportunity. I believe in history. Let's put the historical records straight.

Like people say, tribal community is dependent on Bidi leaf, Tendu leaf. I think its not. It started only in 1960s. So first you should remove the myths. First understand the market.

Talk to Campco. Campco is biggest co-operative of Areca-nut in Bangalore. Meet them, because they want that smokeless tobacco should not be banned, because their Areca-nut sells with SLT only. Go to Gorakhpur. The largest records from 1830s-1840s of India, Geeta Press and Vidya Mandir book shop. Very brilliant archives. How did the British influenced the whole taxation structure? Why did they not taxed Bidis? Then you will also have to look at the opium trade because opium and SLT were very closely linked. Different kinds of characters that inter-play, it is a very complex story.

You also ask questions.

Rohini: What is the role of the Union in tobacco control?

Pranay: We provide technical support to National governments and state governments; institutionalising tobacco control. Our job is to inform policy makers, what are the good practices globally. What is that can be customised to their setting. We also like to dispel myths like these about tobacco, about benefits of tobacco, about benefits of tobacco economy, and reflect to them that tobacco causes more harm than benefit. And we look at diverse aspects of implementation of National Tobacco Legislation, global practices and other things like taxation and things that directly and indirectly affect tobacco use. Our aim is to reduce tobacco use to such a level that there is no harm or injury.

Rohini: Since when you are in Tobacco Control?

Pranay: Since 2002.

Rohini: Since when you are in Union?

Pranay: Since 2007.

Rohini: So since then, can you tell the whole story. Like challenges you faced?

Pranay: Challenges, like in early years, from 2007 to 2011, our job was to make states aware that there is such a tobacco control legislation. They did not even know that 2003 legislation exists. So, many of the beaurocrats, for e.g. would say, OK, does such a law exists. Or they are smoking in their rooms and say OK, am I not supposed to smoke in my room. Today the thing is that, everybody is aware that there is a tobacco control law. I think, the battle started in the grassroots. We had some fantastic warriors, people of public health champions. I am sure you are aware that 1980s and 1990s saw lots of state legislation coming, but that was because of judicial activism. For e.g. in Kerala, there was a woman, who used to travel by bus, and the conductor and the bus driver used to smoke. She used to say that I feel very uncomfortable and made lot of complaints to the Kerala state department. They say.... No, we cant do anything. So she went to court. Kerala high court directed the state government that you put a law that protects people from second hand smoke in all public places. Then they added things like advertising, minimum age of selling and all those things. Once that started happening, several other states also started doing the same thing. Then of-course the landmark case of Murli Deora. In 1999 it was admitted and in 2001 they started preparing this legislation. At the same time, the FCTC

was talked about. Government of India was compelled by its states, and Supreme Court, and its international obligations. Therefore COTPA happened. But it has done very little regarding informing all states that such a legislation exists. So our job was to go and educate every beaurocrat, every enforcer; that they have a role in advancing tobacco control.

Rohini: Now at present, what is the major challenge in tobacco control?

Pranay: I think big industry push back. They have reached all the ministers, all the high level MPs, MLAs. They have so much money. We are like nothing. We are very few people. We have very little resources. I think the entire budget of India's tobacco control is equal to their two CEOs salary. As bad as that.

Rohini: Can you tell the status of Gutka ban right now? Like they ban it for one year or two years and then there is no ban. In some states, there is a ban, in some states there is no ban.

Pranay: No! All states have banned it. The problem is that, there is exemption in 3 states. OK. The second thing is.....

Rohini: Which 3 states?

Pranay: One of them is Gujarat. The one is U.P. Both of them say that we do it for exports. Third state which has given an exemption for production and export to other states is one of the N-E states. The other thing is that nobody wants to take a bold step.

You know Gutkha was a creation of Daud Ibrahim. As in the Bombay under-world. Now, if you do a google search, in Pakistan it is banned. But in Karachi, there is an underground industry. If you do a simple google search, "Daud Ibrahim and Gutkha"; you will get so many hits.

In fact, associates in Bombay are either into film industry, drugs or Gutkha. In fact, there is a case going on in Bombay on somebody who is Daud Ibrahim's associate and is a Gutkha producer. Lot of his former associates are film producers.

The fact is, if Government is not doing enough to shut Gutkha, then it itself is promoting terror somewhere, like Daud Ibrahim or smaller Daud Ibrahim. Because Daud Ibrahim benefits from it, even today. The money is reaching to him. He knows how to take money back from India.

The same thing is for Bidi manufacturers or cigarette manufacturers. There are enough instances of cigarette companies (ITC and Godfrey Phillips) have done things that are anti-national. They have laundered money, they own financial companies which siphon out money.

You should certainly, certainly, as part of your research, have at-least one box, if not an entire chapter on how smokeless tobacco manufacturers were part of MSA (Master Settlement Agreement). Nobody has written on it.

Research on this.

MSA is funding all the tobacco control in America. We are partly paying for it. Cancer treatment in America.

Rohini: Can you elaborate?

Pranay: You have to go to the MSA website. See who are the parties? You will see the names..... ITC, Godfrey Phillips, Dharampal Satyapal. Then you will see DS Group pays how much money each year? Similarly more SLT companies. For example, ITC used to work through a company which was in Parasnus and was called King Maker. Now King Maker is the marketing agency that ITC purchased in America to sell its cigarettes. Last year ITC sold that company at a loss. So this is the racket. Government of India needs to understand that it is not contributing to tobacco control in its own country, but is contributing to tobacco control in their country, without its knowledge. That is the scandal. Because you sold Bidi, Gutkha in their country in 1960s-70s, you are paying them now for it. This is the scandal.

Rohini: So, Are they obliged to pay for it?

Pranay: They are compelled by international law. Because Master Settlement Agreement was settlement of all tobacco companies in front of grand jury of America. I think Mr Deveshwar and others will get arrested, if they don't pay.

So what you think that SLT manufacturer is a poor man, employing 50 people, is actually..... He pays no tax, paying the mafia, paying the local MLA. There is lot of dirty money. Gutkha, after recycled steel..... is the most laundered, most illicit trade. Ask any excise officer. But is Gutkha ban effective? Yes, it is effective. Does it help us? Yes! Absolutely. Because today..... It is getting difficult for people to buy. Now it needs people like Ajay Devgan and Priyanka Chopra to sell it.

The fact is that they still make a lot of money.

What is the next battle..... we don't know.

Dr Rana J Singh

(The UNION)

Rohini: Sir, What are the major challenges in SLT control?

Dr Rana: First of all, people are not clear regarding definition of food. For e.g. There was a discussion on Khaini. Whether Khaini is a food or not? So that FDA group, people who deal with food, were sitting. So there was different interpretation about – whether Khaini is a food or not. Anything that goes into mouth, they consider it as food. But some of them were saying that No, it has not fulfilled the definition of food. So, in that way..... First of all clarity regarding definition is not there. Secondly, these bans which are coming up.... if as per section 2.3.4 of FSSA, Gutka is banned, then why states have to ban it every year. It is something that states have to renew their ban every year. This should not be in that way. So, perhaps we have not been able to put up our case and that ambiguity is with us. People who are dealing with it, are not very clear about it. All these definitions and all those interpretations of the act.

As far as policies are concerned, definitely COTPA, often people say that COTPA is insufficient for smokeless tobacco. It covers all aspects of tobacco, even smokeless tobacco. But section 4, definitely section 4 is only for smoking. So..... if law is amended, it may be something like, chewing at public places, may be banned. When we are strengthening COTPA or in the next amendment of COTPA, if we can include, that in addition to smoking at public places, chewing at public places is also prohibited. Chewing and spitting.

Spitting is already prohibited in many states under acts of Municipal Corporation. But specifically to address this question of different people, that COTPA is insufficient for smokeless tobacco, so to see if that can be included.

Secondly, smokeless tobacco does not have uniform packaging. This is something which needs to be introduced. In Bangladesh, we have already given grant to Dhaka university for two tasks. One is to increase graphic health warnings from current 50 percent to 80-85 percent. Second is uniform packaging. Because some packs are so small that graphic health warnings does not show clearly. Some packs are little bit different shapes. So..... uniform packaging is very important for smokeless tobacco.

Section 7 can also be properly implemented i.e. graphical health warnings can be properly implemented on that. So this is one important issue.

Next is, surrogate advertisements. This is another challenge.

Rohini: Like nowadays lot of advertisements by Ajay Devgan and Priyanka Chopra.

Dr Rana: Yes, although they are Pan Masala advertisements; but people are trying to include even Pan Masala in the advertisement ban. But this is not legally possible.

Separately it can be banned under Food act. That it causes cancer. But under COTPA, they cannot do it.

Rohini: But, regarding this Gutkha ban, some states are also banning Pan Masala.

Dr Rana: But that is not under COTPA, that is under FSSA. So we need to see that... for example, our information and broadcasting rules, they allow you to advertise your products. So in that way..... Pan Masala and other products can be advertised. COTPA prohibits. That is why it is so difficult. There is no advertisement of tobacco as such. If any advertisement is happening, that is of Pan Masala. Pan Masala is not covered under COTPA. And as per Indian constitution, as per rights, you can advertise your product. So this is on policy side. So really this is difficult. So to see that.... on most of the products it is written that No Tobacco. So..... we should have a network of laboratories where we can immediately send those products to know whether it contains nicotine or not. So now they are setting up at 3 places. Bombay, Guwahati and Noida (NICPR). So lets see what is the progress on that.

So on policy side, we will not be able to do anything unless COTPA is amended. And at the same time, we also deal with other ministries, so it is multi-stakeholder.

Rohini: Is there any document regarding recommendations to amend COTPA?

Dr Rana: Yes, but that cannot be shared right now. It was Union which was primarily pushing for COTPA amendment. In section 4 whichever exemption have been given. In section 5, point of sale and minors asking for tobacco. Now, you ask me what are the gaps in TAPS ban. One is point of sale board which has been allowed. Although it is a very small board, not with the brand name, but it is still there. That we can display a small board with white background, black text, and that mentioning only the products, that Gutkha, Khaini, Bidi, cigarette is available here. Not the Fore-Square, Red & White or brands. That board is now misutilised by the tobacco companies.

Rohini: They put their advertisements on the kiosk.

Dr Rana: Yes, So in TAPS ban, there are two gaps. One is Point of Sale board. Second is advertisement on the packaging. So advertisement on the packet is allowed, under COTPA.

Secondly, we are providing legal age. Legal age, from 18 to 21, for purchasing tobacco products. So these are some recommendations. So..... these are major exemptions, which make Indian law very weak, and when we go to international level, they still say that Indian smoke-free law is not 100 percent. OK. Because exemption for hotel, restaurant, airport have been given.

Similarly TAPS ban, still they say that point of sale advertisement has been allowed. So that is why it is a weak part.

Then comes age. So increasing age from 18 to 21.

Another amendment which has been suggested is increasing penalty amount, from 200 to 1000.

Rohini: So is it still 200 only?

Dr Rana: Yes, still it is 200.

If there are repeated offences, then we are recommending closure of public place.

Similarly uniform packaging. Then we want to correct MPOWER.

So overall..... Definitely, we want to have other people. We want to have standardised protocol for cessation of tobacco products. We also need to train them. This has been initiated, where dental people are trained. How cessation of SLT is different from cessation of smoking forms. We need to train people on Fagerstrom. There is a separate Fagerstrom index which has been developed for smokeless tobacco. Secondly we also need to see that whether our current medication properly works in smokeless tobacco cessation also or not. NRT, Bupropion, varinicline. So we need to undertake research to know the effectiveness of current strategies for tobacco cessation on smoking versus smokeless tobacco.

Finally, definitely we need to scale-up. Locally relevant research, related to policy implementation.

Harmful effects, you see, currently we do not have enough evidences about harms of smokeless tobacco. But still I think more locally relevant research related to smokeless tobacco is required.

Secondly, whether in COTPA amendment, whether that part, spitting and chewing, at public places, can be amended. Because when there was a meeting; two ministers were sitting, secretary was sitting, so the people said that our current tobacco control act/ efforts do not apply to SLT. But Government of India says No. Similarly one said that IEC activities. Till now only three major mass-media campaigns have been done, focusing only on smokeless tobacco. SLT is priority. So till date, 3 main mass-media campaigns; which have focussed only on SLT. One was “Mukesh”, “Sunita”.

Rohini: “Surgeon”

Dr Rana: Yes, only for SLT.

And.....State specific Plans are developed. Like, Khaini is more prevalent in Bihar. Then eastern parts of UP. So in SLT, Khaini requires more attention. And more IEC around it.

Secondly, if there was a Gutkha ban, then how it is projected in GATS. In GATS, still the prevalence of Gutkha is at number 2. If Gutkha is banned, then how it is showing in GATS at number 2. Whether they are asking right questions? So if those who asked questions in GATS, were able to convey that Do you understand Gutkha. Suppose I am asking, do you eat Gutkha. They responded Yes. But they don't know What is Gutkha.

So that's all

Enforcement is a major challenge.

Annexure 4 – Publications

1. Ruhil, R. (2019). Sociodemographic Determinants of Tobacco Use in India: Risks of Risk Factor—An Analysis of Global Adult Tobacco Survey India 2016-2017. **SAGE Open**, Vol 9, issue 2. <https://doi.org/10.1177/2158244019842447> [ISSN No. 21582440].
2. Ruhil R. (2018). India has reached on the descending limb of tobacco epidemic. **Indian J Community Med** 2018, 43, 153-6. DOI:10.4103/ijcm.IJCM_213_17 [ISSN No. 0970-0218].
3. Rohini Ruhil. (2017). Millennium Development Goals to Sustainable Development Goals: Challenges in the Health Sector. International Studies, Jawaharlal Nehru University, **SAGE Publications**, 52(1-4), 118 - 135. [ISSN No. 0020-8817].
4. Ruhil R. (2016). Sociodemographic characteristics of tobacco users as determinants of tobacco use screening done by healthcare providers: Global Adult Tobacco Survey India 2009-2010. **J Family Med Prim Care**, 5, 82-8. [ISSN No. 2249-4863].