



Tobacco product users in Kavali Town- a Sample Survey

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Abstract: Prevalence of all kinds of tobacco consumption is higher among poor income groups in India. Roughly 85% of the tobacco consumption in India is non-cigarette type i.e.. In the form of Bidi (It is an indigenous tobacco preparation in India made by rolling a dried piece of Temburini leaf) (*Diospyros melnoxylon*) with 0.15 to 0.25 g of sun-dried flaked tobacco into a conical shape and securing the roll with a thread. As per the interpretations in Kavali the percentage of men and women consuming more compared with estimated National data. Hence, it is suggested that the Govt., and Non-Govt., Social Service Organizations are requested to concentrate on this issue and enlighten the public through canvass and other media to eradicate the tobacco product usage by the householders to reduce their financial burden and also medical expenditure to cure various tobacco related diseases.

Key words: neo-plastic diseases, smokers, drinking alcohol

Introduction:

Tobacco has become the predominant cause of preventable deaths in the world (Reddy & Gupta 2004). In India estimated 60 % of men and 33% of women consume tobacco products. India is home to nearly 17 % of the smokers in the world. Probability of various respiratory, vascular and neo-plastic diseases and mortality rate are found to be higher among tobacco users compared to non-users. Estimates of household expenditure from National Sample Survey Organization (NSSO) in India on consumption of addictive goods account for 4.4% of total budget of a household who choose to consume any of the addictive goods viz., Smoking, Chewing tobacco, use of snuff, drinking alcohol etc. in both rural and urban India.

High prevalence of tobacco use coupled with a suitable proportion of the family budget on its consumption will

have far reaching implications on the welfare of public, in general, and the tobacco using households in particular. In addition to the financial burden that directly affects the householder and there is an indirectly financial burden in the form of medical expenditure to cure numerous tobacco related diseases such as Cancer, tuberculosis, heart disease and various acute respiratory diseases.

Prevalence of all kinds of tobacco consumption is higher among poor income groups in India. Roughly 85% of the tobacco consumption in India is non-cigarette type i.e.. In the form of Bidi (It is an indigenous tobacco preparation in India made by rolling a dried piece of Temburini leaf) (*Diospyros melnoxylon*) with 0.15 to 0.25 g of sun-dried flaked tobacco into a conical shape and securing the roll with a thread (Gupta et al 1992). As high as cigarettes contribute 86% of the excise revenue collected from the



tobacco products where as bidi contribute only 5% and chewing tobacco consumption also attracts only a very small tax. To regulate the use of all tobacco products, taxation is an important price instrument. In India Taxes on cigarettes in India are levied on the basis of its length, and it ranged from Rs. 135 to Rs. 450 per thousand units for non-filtered cigarettes and Rs. 670 to Rs. 1450 for filter cigarettes in the year 2002-03as given in the table. Where as tax on thousand units of bidis is only a meagre Rs.7., Chewing tobacco attracts an ad valorem tax in India. A study sponsored by Tobacco Institute of India (Sen et al 1998) found that frequent hikes in excise duties help in showing down the consumption of tobacco. The fact is that bidis, which are consumed by the majority of tobacco users in India, are more harmful than cigarettes. Though bidis contain only a small amount of tobacco compared to cigarette, they deliver as much as 45 mg. – 50 mg. of Tar and 1.74mg – 2.5 mg. of Nicotine compared to 18 mg. – 28 mg. and 1.55 mg. – 1.92 mg. of Tar and Nicotine respectively in Indian cigarettes (Gupta et al 1992).

As per the latest (6 March 2006, the Hindu) information Director, Udayan Lall TII (Tobacco Institute of India) the tobacco country `s share is 35% in the global trade. The flue-cured Virginia tobacco had tremendous potential to enhance Agri-income, to increase rural employment, to boost exports and to maximize Govt., revenue. Currently, a cigarette, with their merger 14% share of total tobacco consumption, contributes 85% of the revenue. Taxes on a per Kg., basis were 30 times higher on cigarettes as compared to bidi and chewing tobacco. In my present paper I want to study how

the tobacco products are being purchased in Kavali Town through a sample survey conducted in different areas of the town and estimate the men and women using tobacco products.

DATA ON CONSUPTION OF TOBACCO PRODUCTS:

National Sample Survey Organization (NSSO) conducted National wide sample surveys on the consumption of addictive goods habits of households in India during it's Quinquennial surveys (a large sample survey carried out every five years). The last such survey that was carried out during July 1999 – June 2000 collected information on consumption of addictive goods from 1,20,309 households spread over 10,140 villages in India. The goods of consumption of on which it collected the information included a wide variety of addictive goods such as tobacco, pan and alcohol products along with 500 food and non-food items. Various household characteristics were also surveyed with it. The quantity purchased as well as the expenditure incurred for consumption of various products over the last 30 days prior to the date of interview were recorded (table: 3). Addictive goods that are surveyed included eight tobacco products, 6 pan products (pan consists of betel leaf, areca nut, slaked lime, catechu and tobacco- tobacco forms only a small portion of pan and the amount of tobacco varies in different pan products). Pan includes pan leaf and finished pan. The data indicates that 65% of the rural households and 49% of the urban households report consumption at least one of those addictive goods in the last 30 days prior to the date of interview. Tobacco users constitute the major chunk of households consuming addictive goods. Approximately 95% of the reporting tobacco users consume either bide,



cigarette, leaf tobacco or a combination of these. Except cigarette and foreign liquor, consumption of every other items higher among rural households than their urban counterparts. Table 3 gives average unit value over those households who bought the addictive good and the average over all households of the share of the total expenditure that is devoted to each goods with the fraction of households consuming each of them. Portion of households budget spent on addictive goods, average by the number of all households, include those who do not consume any of it. Shows that 3% of the rural and 2.2% of the urban household budget is spent on consuming addictive goods. Table 5 gives the information of tobacco product users in Kavali Town as per the conducted Sample Survey.

INTERPRETATIONS:

Total percentage of tobacco product users in Kavali Town is 76.11% among them 84.7% of Men and 62.8% of women were estimated as per the sample survey report. Area wise reported percentages are 1) Vengal Rao nagar: - 71.85% 2) Vykuntapuram: 27.64% 3) Jantapet: 34.1% 4) Trunk road: 85.88% 5) Old Town: 27.64% are accounted. As per the test for proportions for the total town $Z_c = 10.91$ in the case of Men and $Z_c = 13.9$ in women both are rejected and

References:-

Rijo M John, 'Price Elasticity Estimates for Tobacco and Other Addictive Goods in India', Aug 2005.

Chaloupka, Frank and Kenneth E Warner, 2000, The economics of smoking, In A. J.Culyer and J. P.Newhouse, eds, 'Handbook of Health Economics', Vol. 1B, Elsevier Science, Amsterdam, pp. 1539-1627.

interpreted as when compared with National value of tobacco product consumers are high in Kavali . It is also estimated that totally 60896 of 79862 populations were consuming tobacco products, among which 34583 Men and 26313 women are consuming tobacco products. As per the area wise estimations in Vengalrao Nagar, Trunk Road and Old Town the percentage of men users are more than the Indian Men consumers i.e. 65%. And in the case of women the consumption is very high only in the Trunk Road on the basis of the data collected from the floating population that come from rural area. It is also little more in Old Town as it has rural background.

CONCLUSIONS :-

As per the interpretations in Kavali the percentage of men and women consuming more compared with estimated National data. Hence, it is suggested that the Govt., and Non-Govt., Social Service Organizations are requested to concentrate on this issue and enlighten the public through canvass and other media to eradicate the tobacco product usage by the householders to reduce their financial burden and also medical expenditure to cure various tobacco related diseases.



- Gajalakshmi, V, Richard Peto, T.S Kanaka and Prabhat Jha, 2003, 'Smoking and mortality from tuberculosis and other diseases in India: Retrospective study of 43000 adult male deaths and 35000 controls', *The Lancet* **362**: 507–515.
- Gupta, Prakash C, James E Hamner and P.R Murti, eds, 1992, *Control of Tobacco-Related Cancers and Other Diseases*, Oxford University Press, Bombay.
- John, Rijo M, 2004, 'An analysis of household tobacco consumption decisions: Evidence from india', Working Paper No. 002-2004, Indira Gandhi Institute of Development Research, Mumbai.
- John, Rijo M, 2005, 'Tobacco consumption patterns and its health implications in India', *Health Policy* **71**[2]: 213–222.
- NSSO, 2000, 'Socio-economic survey, 55th round: July 1999 - june 2000, household schedule 1.0: Consumer expenditure', Government of India, New Delhi.
- NSSO Expert Group, 2003, 'Suitability of different reference periods for measuring household consumption', *Economic and Political Weekly* **38**[4]: 307–321.
- Rani, Manju, S Bonu, P Jha, S.N. Nguyen and L Jamjoum, 2003, 'Tobacco use in India: Prevalence and predictors of smoking and chewing in a national cross sectional household survey', *Tobacco Control* **12**[4].
- Reddy, K Srinath and Prakash C Gupta, eds, 2004, *Report on Tobacco Control in India*, Ministry of Health and Family Welfare, Government of India.
- Sarma, Atul, 2000, 'Regulating tobacco use: Role of taxes', *Economic and Political Weekly* **35**[52]: 4613–4616.
- Sen, Anindya, Subrata Sarkar and Ajit Ranade, 1998, *Opportunities and Challenges in Tobacco*, Indira Gandhi Institute of Development Research, Report of Study Sponsored by Tobacco Institute of India, New Delhi.
- Shafey, Omar, Suzanne Dolwick and G Emmanuel Guindon, eds, 2003, *Tobacco Control Country Profiles*, 2 edn, World Health Organization.
- Shimkhada, R and J.W Peabody, 2003, 'Tobacco control in India', *Bulletin of The World Health Organisation* **81**[1]: 48–52.
- World Health Organization, 2002, Country profiles on tobacco or health, WHO, Regional Office for South-East Asia, New Delhi, India, pp. 27–44.

Figure 1: Projected consumption of and revenue from bidis and cigarettes

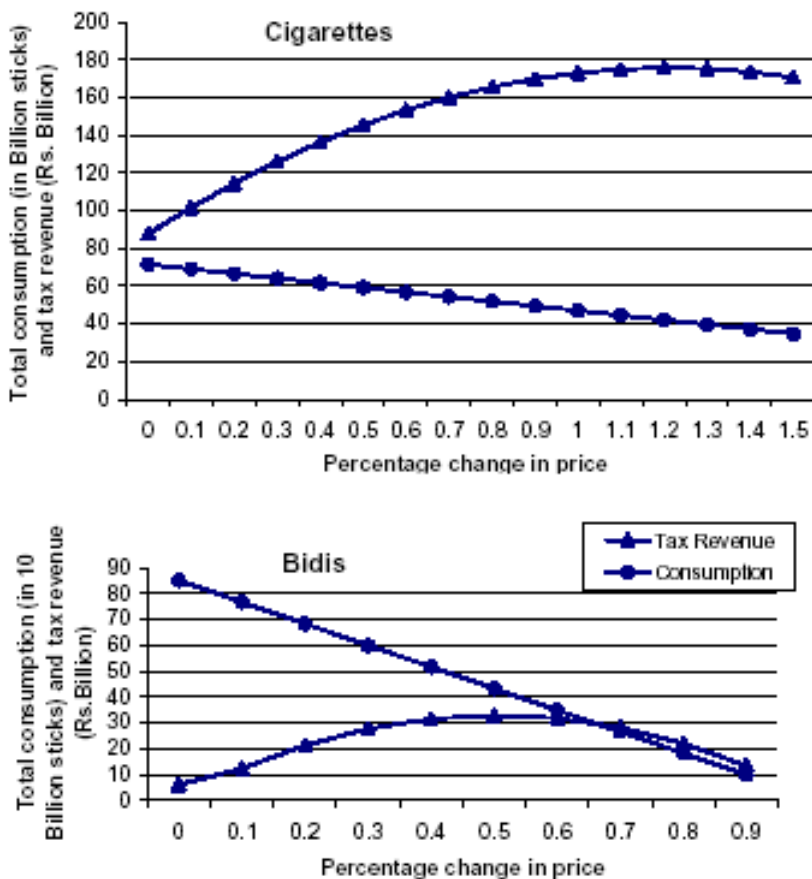


Table 1: Share of different tobacco products in total Union excise duty (basic and additional) collected from tobacco.

Year	Cigarettes	Bidi	Chewing	Others	Total Revenue (Rs.Billion)
1994-95	86.71	6.90	4.69	1.62	31.577
1995-96	85.86	4.54	5.29	4.21	39.877
1996-97	85.60	5.18	5.59	3.57	46.529
1997-98	86.30	5.66	5.37	2.61	51.376
1998-99	86.29	5.70	5.99	1.98	55.954
1999-00	86.06	5.77	6.25	1.87	55.660
2000-01	85.10	5.40	7.14	2.33	60.389

Source: Calculated from P.240, Reddy and Gupta (2004).

Table 2: Excise duty rate of different tobacco products in India as on 2003-04.

Tobacco Products	Duty per 1000 units in Rs.
Non Filter Cigarettes	
not exceeding 60 mm in length	135
Between 60 mm and 70 mm	450
Filter Cigarettes	
not exceeding 70 mm in length	670
between 70 mm and 75 mm	1090
between 75 mm and 85 mm	1450
Bidis	7
Rates of duty (<i>ad valorem</i>)	
Cigars and cheroots	16%
Other Tobacco products	60%
Pan masala	55%
Pan masala containing Tobacco	60%

Notes: The *ad valorem* taxes for cigars and cheroots are only from basic excise duty (BED) whereas that of other tobacco products and pan masala containing tobacco comprise of 16% BED, 16% Special duty, 18% Additional duty, and 10% National Calamity Contingency Duty (NCCD). The duty on pan masala comprises of BED and special duty 16% each and NCCD 23%.

Source: Central Board of Excise and Customs, Government of India.



Table 3: Unit values and budget shares of different addictive goods

Rural India						
Commodity	Unweighted			Weighted		
	% Consuming	Unit value	Share	% consuming	Unit value	Share
Bidis	35.33	0.22	0.97	36.50	0.17	1.08
Cigarettes	5.46	1.59	0.18	3.69	1.40	0.14
Leaf-Tob	18.68	70.00	0.23	19.42	69.86	0.24
Pan	22.54	0.70	0.36	18.47	0.65	0.30
Alcohol	15.65	48.02	0.82	16.40	47.02	0.72
Total	64.77	NA	3.16	64.23	NA	2.92
Urban India						
Bidis	18.93	0.21	0.50	19.84	0.21	0.54
Cigarettes	11.32	1.47	0.43	9.61	1.32	0.39
Leaf-Tob	7.39	74.98	0.09	7.25	74.73	0.08
Pan	18.79	1.13	0.39	15.46	1.13	0.32
Alcohol	9.65	99.10	0.59	10.20	95.07	0.56
Total	48.95	NA	2.27	44.16	NA	2.14

Notes: Total includes all the addictive goods including the ones that are not listed here but are there in the NSS data. Unit of measurement for bidi, cigarette and pan is number, leaf tobacco is Kg., and alcohol is litre. Unit values are all in Rupees. Budget shares (averaged for consuming and non-consuming households alike) are in percentages.

Source: Author's calculation from NSSO (2000) data.

Table 4: Own price and Expenditure elasticities for 50th round

Items	Rural India		Urban India	
	own elsty	η_x	own elsty	η_x
Bidi	-0.769	0.65	-0.707	0.589
Cigarette	0.601	2.24	0.251	1.527
Leaf Tobacco	-0.003	0.44	-0.141	0.669
Pan	-0.665	1.03	-0.592	1.042
Alcohol	-1.162	1.34	-1.050	1.690



Table: 5.Area wise tobacco products purchasing consumers in KAVALI Town.

Area	No. Of consumers surveyed			No. Purchasing tobacco products		
	Men	Women	Total	Men	Women	Total
Vengal rao nagar	43	26	69	35	7	52
Vykuntapuram	103	20	123	32	2	34
Janatapet	31	13	44	13	2	15
Trunk Road	525	410	935	516	287	803
Old Town	44	15	64	40	6	46
GRAND TOTAL	751	484	1235	636	304	940