

# The Perverse Economics of the Bidi and Tendu Trade

PRANAY G LAL, NEVIN C WILSON

A response to “A Rational Taxation System of Bidis and Cigarettes to Reduce Smoking Deaths in India” (EPW, 15 October 2011). It is important to first have better information on the production of tendu leaves and bidis, and then to correct the prices of inputs (including wages) if tax policies are to have a salutary impact on bidi smoking.

The tendu (leaf) and bidi trade is dominated by a handful of traders, who have gained political clout and economic concessions under the guise of providing employment and livelihood.

Bidis are smoked by over 73 million adults, mostly rural men (GOI and IIPS 2010). Tendu leaf plucking generates about six weeks employment for about 7.5 million people (Arnold 1995) while rolling bidis engages nearly 4.4 million women and children (Ministry of Labour various years), and their collective efforts result in 600 billion to one trillion bidis being produced every year, making bidis perhaps the most produced commodity in India. They are also the single largest cause of preventable premature death among adults in India. Despite these staggering numbers of employment, production and early deaths, there are no national estimates of the numbers of bidis made or tendu leaves plucked, and the revenues realised or forgone.

Data on bidis and tendu leaves is hard to come by. There are virtually no government figures on annual bidi production. Tendu extraction (called production in forestry terms) is reported by state forest departments or forest development corporations, which are consolidated in the Forestry Statistics India (FSI) prepared by the Indian Council of Forestry Research and Education, Dehradun. However, these are inaccurate since states report their data in different units (Karnataka reports annual production in cubic metres, while Madhya Pradesh, Gujarat and Uttar Pradesh report these in standard bags, many others report in metric tonnes or quintals). It is also not clear whether extraction implies tendu leaves auctioned or collected or the total inventory or the sales. The biggest drawback of the (state) government data is that private and community extractions which are legally permitted are not recorded or

reported. Much of this is also illicit extraction which benefits corrupt traders, local politicians and even insurgent groups. The states also chose to ignore reporting in the standard unit prescribed (the standard bag, which contains 1,000 bundles of 50 sun-dried leaves each in a sack which weighs about 40 kilos (FAO 2005)). In Maharashtra the measure of a standard bag is also different. If viewed objectively, the FSI data is grossly inaccurate. According to FSI's cumulative data (as reproduced from the Ministry of Statistics and Programme Implementation (MOSPI)) in 2002-03, India produced 5,92,853 metric tonnes of tendu capable of making 740 billion bidis. This increased to 7,10,109 mt (or 880 billion bidis) in 2003-04 which declined drastically to 3,12,660 mt and 2,68,464 mt in subsequent years. Tobacco industry reports do not suggest any staggering decline in the bidi trade or show massive migration of bidi smokers shifting their preference to cigarettes. How does the FSI explain such a decline? Officially, how much tendu leaf is extracted in India, is a question that remains unsubstantiated.

## Illicit Tendu Trade

Using back-of-the-envelope methods could help us arrive at the magnitude if not precise numbers of tendu leaves plucked and bidis rolled. To begin with, since every bidi contains on an average 0.2 grams of tobacco (Gupta and Asma 2008), dividing the bidi tobacco produced (Directorate of Tobacco Development 2010) provides an estimation of the total bidis produced annually. Export of bidi tobacco as a proportion of total production is too small (0.14% in 1996-97 and 0.08% in 2006-07) and can therefore be ignored. From 1975 bidi production grew from 0.55 trillion to nearly one trillion by 1990. By the mid-1990s, more than one trillion were produced, but it started to decline after 1998 (Figure 1, p 78).

For simplicity of calculation, for production factors (like quality of leaves, skill of labour which can reduce wastage, damage to leaves during the entire production cycle, etc) it is assumed that every tendu leaf produces just one bidi, which is the acceptable norm (Giriappa 1987; Lingaraj

Pranay G Lal ([PLal@theunion.org](mailto:PLal@theunion.org)) and Nevin C Wilson ([NWilson@theunion.org](mailto:NWilson@theunion.org)) are with the International Union Against Tuberculosis and Lung Disease (The Union), New Delhi.

1980). To estimate the national tendu leaf production, auction data from Madhya Pradesh (MP), the largest tendu leaf producing state, is extrapolated (Madhya Pradesh State Minor Forest Produce (Trading and Development) Coop Federation 2011; Singh 1997). This data is consistently reported and publicly available in their annual reports. Prior to 2000, MP produced nearly 41-45% of the total tendu (Gupta 1991; Joshi 2003). After its bifurcation to create a separate state – Chhattisgarh the proportion has been reduced to about 25% since 2001 (FSLG, undated). As a conservative estimate, 45% is used as MP's share of the national production prior to 2000. To test whether these ratios are effective, national, and state level data from MP from 1975 to 1998 from two other studies are compared and only minor variations ( $\pm 3$  to  $\pm 5\%$ ) are observed (Singh 1997; Kushwaha and Kumar 2007). The difference between the total number of bidis produced (using bidi tobacco production data) and the national tendu leaf production provides an estimate of the size of the private, unregulated and illicit tendu market (Figure 1). Between 2000 and 2003,

new states like Jharkhand and Chhattisgarh took time to create their auction systems, and this is corrected in our estimation as seen in Figure 1. As these states quickly organised their auction system, tendu leaf extraction has intensified in Chhattisgarh and Jharkhand. In some states especially Bihar, Rajasthan, Gujarat and Maharashtra there has been a steady decline in the extraction since 2003. Since Jharkhand has more tendu leaf producing districts, Bihar's forest department has little incentive to focus on tendu leaf plucking. With the removal of food subsidy to tendu leaf pluckers in 2001, there has been a sharp decline of tendu through forest department in eastern Uttar Pradesh (UPFC 2011). Rajasthan has a very variable tendu leaf trade. In 2005, Rajasthan extracted just 1.57 lakh standard bags, which rose to 5.27 in 2007 (Rajasthan Forest Department 2010). In Maharashtra, it has become a major drain for the forest department as

Naxalites allegedly claim most of the benefits of the harvest (Comptroller and Auditor General of India 2008), and since 2007 restrictions on over-extraction are being put in place as result of which there is a decline in the extraction (Maharashtra Forest Department 2010, 2011).

States like Jharkhand and Chhattisgarh are extracting more tendu while offering a higher price each year (Jharkhand Forest Department 2011; CSMFPF 2011). There have been concerns about over-extraction and deciding on the optimum harvest size for tendu (Hunter 1981) and many of these forests are irreparably damaged (Saha and Howe 2003).

These estimates for bidi correspond well with tendu leaves auctioned (FAO 2005) and those claimed by the bidi industry lobby – the All India Bidi Industry Federation – of around 550 billion pieces during this period (All India Bidi Industry Federation 2000). The current level of bidis produced 650-720 billion (605 billion in 2007-08) estimated here is considerably less than more recent estimate of 1 to 1.2 trillion bidis (Sunley 2008). The difference between estimated tendu leaves produced versus total bidis made is nearly 40% to 50% and is met through illicitly or privately traded tendu. In 2007-08, only 310 billion tendu leaves were legally available but nearly 605 billion bidis were made – which implies that about 49% tendu leaves were acquired illegally by bidi manufacturers. The Global Adult Tobacco Survey suggests that nearly 553 billion bidis were consumed in India in 2008-09 (GOI and IIPS 2010).<sup>1</sup>

Three lessons emerge from this.

- The most important factor in the bidi trade is the tendu leaf. It is the critical ingredient that makes bidis cheap and is available in abundance. Its production is subsidised by state governments and the states determine prices arbitrarily.

Figure 3: Price of Standard Bag of Tendu in Madhya Pradesh (in Rs)

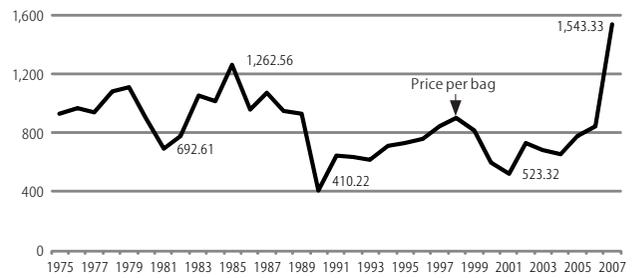


Figure 1: Estimate of Bidis Produced and Size of Organised and Illicit Tendu Trade

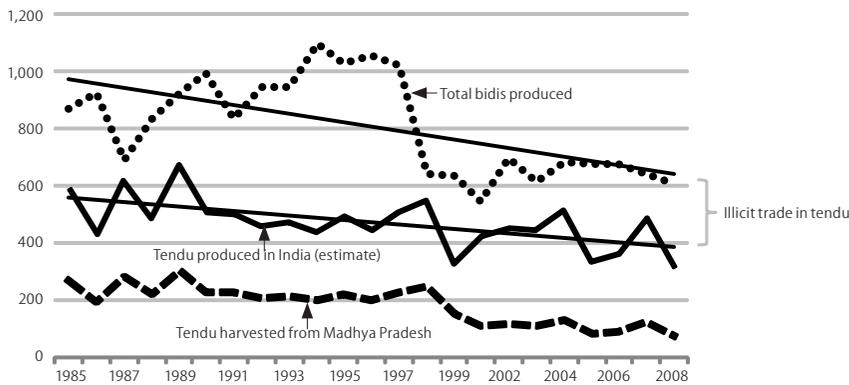
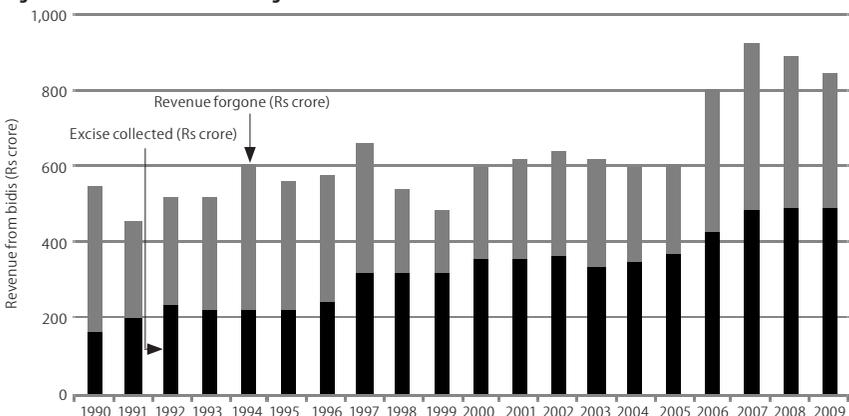
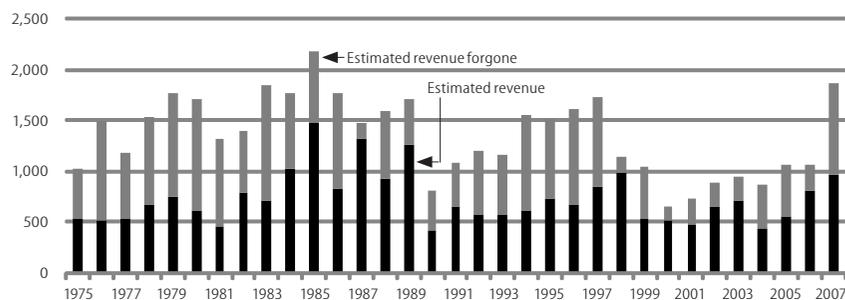


Figure 2: Estimated Tax Revenue Forgone for Bidis



**Figure 4: Estimated Revenue Forgone in Tendu Trade (Rs crore)**

Tendu leaf prices are variable each year but have not increased over the past 20 years. In Madhya Pradesh, for example prices in 2006 were the same as those in 1976 (Figure 2, p 78).

- Fewer bidis are being produced, but as a proportion more bidis are being taxed than the previous decade (Figure 3, p 78). This is not only because collections have improved substantially, but more importantly, bidi production centres in Gujarat, Maharashtra, Rajasthan, Orissa and Bihar have declined and shifted to new areas. Some bidi rolling centres like Sagar, Damoh and Murshidabad have consolidated, which may have made collection simpler.

- Tendu leaf trade is larger in size than the bidi tax revenues, when illicit trade for both are considered. In 2007, for example, the illicit trade market of tendu leaves and untaxed bidis together was estimated at Rs 1,288 crore (untaxed bidis accounted for Rs 381 crore), illicit tendu trade was around Rs 907 crore which is more than the budget for routine immunisation and polio combined in 2007 or larger than the profits of India's public sector aluminium producer National Aluminium Company (NALCO).

### Other Factors Considered

Unlike flue-cured tobacco (used for making cigarettes) which is regulated through the Tobacco Board of India, bidi tobacco cultivation is not regulated, and its price is set by a handful of tobacco traders. Only bidi tobacco prices have been rising in the past decades, but remain largely affordable. In effect, when bidi tobacco prices are favourable the margins can absorb any price or tax increase since the other two inputs (labour and tendu) are abysmally low.

Bidi rolling wages are determined by the states and are set for 1,000 pieces rolled, although states like Karnataka, Orissa and

Uttar Pradesh have minimum wages per day (Ministry of Labour various years). The wages have been low and seldom revised. Even if revisions take place, the wages are controlled by middlemen who exploit vulnerable women, children and old men who depend solely on bidi rolling. The notion that bidi rolling supplements family incomes is delusional for those who accept this; indeed families that roll bidis depend on it for their only real income (Varma and Rehman 2005).

### Recommendations

Numbers and estimates are crucial in achieving the twin goals of reducing the public health impact of tobacco use, and improving tax collection while reducing the illicit trade of bidi.

The public health goals of reducing smoking by raising retail prices through taxes will be defeated in the absence of

these corrections. These may not be simply achieved through raising taxes on bidis or removing the distinction between hand-made and machine made bidis. Tax hikes will be absorbed by producers and may possibly increase the unbranded bidis' sales and illicit trade. It is important to derive the true cost of bidis so that their retail price is corrected. To do this, prices of inputs (labour, tendu leaves and bidi tobacco) need to be rectified as well. The key among these are tendu leaf costs, labour wages and regulation of extraction.

First, the price of tendu leaves must be corrected. Currently the arbitrary nature of setting its price provides virtually no gain for forest dwelling or tribal economies. Using full cost accounting methods which incorporate economic, social and ecological costs and reducing state discretion in price setting, a full cost price of the bidis can be achieved. The Haque Committee appointed by the Ministry of Panchayati Raj in August 2010 has recommended a set of mechanisms to determine the minimum support price for tendu leaves.

Second, wages for tendu leaf plucking and bidi rolling must be made at par or above existing minimum wage rates and distinction between home-based and manufactory rates must be removed. Because of the significant size of the bidi and tendu leaf trade and their profound impact on

## Economic & Political WEEKLY

### REVIEW OF URBAN AFFAIRS

July 30, 2011

Urban Concerns: An Introduction

— Anant Maringanti, Amita Baviskar,  
Karen Coelho, Vinay Gidwani

Bypassing the Squalor: New Towns, Immaterial  
Labour and Exclusion in Post-colonial Urbanisation

— Rajesh Bhattacharya, Kalyan Sanyal

Urban Development and Metro Governance

— K C Sivaramakrishnan

Branded and Renewed? Policies, Politics and  
Processes of Urban Development in the Reform Era

— Darshini Mahadevia

Translating Marx: Mavali, Dalit and the Making  
of Mumbai's Working Class, 1928-1935

— Juned Shaikh

The Board and the Bank:

Changing Policies towards Slums in Chennai

— Nithya Raman

For copies write to:  
Circulation Manager,

**Economic and Political Weekly,**

320-321, A to Z Industrial Estate, Ganpatrao Kadam Marg, Lower Parel, Mumbai 400 013.

email: circulation@epw.in

local communities, it is important that they are closely monitored through a central authority.

Third, removal of exemptions for bidi producers who produce less than two million bidis and removing the distinction between machine-made and handmade will reduce illicit and unpaid bidi trade, and therefore correct the existing distortions further.

Only when these three steps are corrected, will the tax arguments (as proposed by Jha et al 2011 and Sunley 2008) have the desired impact of public health goals while achieving revenue gains.

## NOTE

- 1 According to GATS, total bidis smokers (7,33,14,000) × Mean number of bidis smoked per day (11.6) × 365 = 552,878,756,000 or 0.55 trillion bidis.

## REFERENCES

- All India Bidi Industry Federation (2000): "Representation Made to Public Hearings on the WHO Framework Convention on Tobacco Control", 12-13 October ([http://www.who.int/tobacco/framework/public\\_hearings/F2000196.pdf](http://www.who.int/tobacco/framework/public_hearings/F2000196.pdf)), Geneva as viewed on 1 December 2011.
- Arnold, J E M (1995): "Socio-economic Benefits and Issues in Non-wood Forest Product Use", Report of the International Expert Consultation of Non-wood Forest Products (Rome: Food and Agriculture Organisation of the United Nations).
- Chhattisgarh State Minor Forest Produce (Trading and Development) Cooperative Federation Limited (2011): <http://www.cgmpfed.org/forestproduce1.htm>
- CAG (2008): "Maharashtra State Audit Report (Civil Performance) – 2006-2007", Comptroller and Auditor General of India, New Delhi.
- Directorate of Tobacco Development (2010): *Annual Tobacco Production Data (1975-2009)* (Chennai: Government of India).
- FAO (2005): "Global Forest Resources Assessment – Country Report 1", Forestry Department, Rome.
- Indian Council of Forestry Research and Education (2002): Forestry Statistics India, Dehradun.
- FSLG (undated): NTFP Enterprise and Forest Governance: Tendu Leaves, Forest Governance Learning Group, New Delhi.
- Government of India and International Institute for Population Studies (2010): Ministry of Health and Family Welfare, *Global Adult Tobacco Survey: India Report*, New Delhi.
- Giriappa, S (1987): *Bidi Rolling in Rural Development* (New Delhi: Daya Publishing House).
- Gupta, B N (1991): "State of Non-wood Forest Products in India", paper presented at the regional expert consultation on non-wood forest products at FAO Regional Office for Asia & Pacific, Bangkok, 5-8 November.
- Gupta, P C and S Asma (2008): "Bidi Smoking and Public Health: Ministry of Health and Family Welfare", New Delhi.
- Jha, P et al (2011): "A Rational Taxation System of Bidis and Cigarettes to Reduce Smoking Deaths in India", *Economic & Political Weekly*, 15 October, Vol XLVI, No 42, pp 44-51.
- Jharkhand Forest Department (2011): <http://jharkhand.gov.in/jsfdc>
- Joshi, S (2003): "Super Market", *Down to Earth*, Society for Environment Communication New Delhi.
- Hunter, R J (1981): "Tendu (*Diospyros Melanoxylon*) Leaves, Bidi Cigarettes, and Resource Management", *Economic Botany*, Volume 35, Number 4, 450-51.
- Kushwaha, R S and V Kumar (2007): "Economics of Protected Areas and Its Effect on Biodiversity" (New Delhi: APH Publishing Corporation).
- Lingaraj, B P (1980): "Production and Inventory Planning in the Beedi Industry", The Institute of Management Sciences, Hanover.
- Maharashtra Forest Department (2010, 2011): <http://www.mahaforest.nic.in/fckimagefile/April%202011%281%29.pdf> (in Marathi) [http://www.mahaforest.nic.in/report\\_file/Statistical%20Outline%202010.xls](http://www.mahaforest.nic.in/report_file/Statistical%20Outline%202010.xls)
- Madhya Pradesh State Minor Forest Produce (Trading and Development) Coop Federation 2011: <http://www.mfpfederation.org/website/content/tendupatta.html>. As viewed on 1 December 2011.
- Ministry of Labour (various years): *Annual Report 1999-2000, 2000-01, 2009 2008-09* (New Delhi: Government of India).
- Ministry of Statistics and Programme Implementation (MoSPI): *Statistical Year Book 2011*, see: [http://mospi.nic.in/Mospi\\_New/upload/statistical\\_year\\_book\\_2011/SECTOR-5-SOCIAL%20SECTOR/CH-33-ENVIRONMENT%20AND%20FOREST/Table-33.10.xls](http://mospi.nic.in/Mospi_New/upload/statistical_year_book_2011/SECTOR-5-SOCIAL%20SECTOR/CH-33-ENVIRONMENT%20AND%20FOREST/Table-33.10.xls).
- Rajasthan Forest Department (2010): [www.rajforest.nic.in/pdf/Rajasthan%20%20state%20tandu%20patta.pdf](http://www.rajforest.nic.in/pdf/Rajasthan%20%20state%20tandu%20patta.pdf)
- UPFDC (2011): [www.upforestcorporation.in/Scripts/production\\_sale\\_summary.asp](http://www.upforestcorporation.in/Scripts/production_sale_summary.asp)
- Saha, S and H F Howe (2003): "Species Composition and Fire in a Dry Deciduous Forest", *Ecology*, 84: 3118-23.
- Singh, A K (1997): *Land Use, Environment and Economic Growth* (New Delhi: MD Publication House).
- Sunley, E M (2008): "The Tax Treatment of Bidis", International Union against Tuberculosis and Lung Disease (The Union), Paris.
- Varma, U K and M M Rehman (2005): *Tobacco, Tendu Leaf and Beedi Workers in India: Problems and Prospects* (Delhi: Shipra Publications).

## Economic & Political WEEKLY

### REVIEW OF WOMEN'S STUDIES

October 22, 2011

- Subverting Policy, Surviving Poverty: Women and the SGSY in Rural Tamil Nadu – K Kalpana
- Small Loans, Big Dreams: Women and Microcredit in a Globalising Economy – Kumud Sharma
- Women and Pro-Poor Policies in Rural Tamil Nadu: An Examination of Practices and Responses – J Jeyaranjan
- Informed by Gender? Public Policy in Kerala – Seema Bhaskaran
- Addressing Paid Domestic Work: A Public Policy Concern – Nimushakavi Vasanthi
- Reproductive Rights and Exclusionary Wrongs: Maternity Benefits – Lakshmi Lingam, Vaidehi Yelamanchili
- Reinventing Reproduction, Re-conceiving Challenges:  
An Examination of Assisted Reproductive Technologies in India – Vrinda Marwah, Sarojini N

For copies write to:  
Circulation Manager,

**Economic and Political Weekly,**

320-321, A to Z Industrial Estate, Ganpatrao Kadam Marg, Lower Parel,

Mumbai 400 013.

email: [circulation@epw.in](mailto:circulation@epw.in)