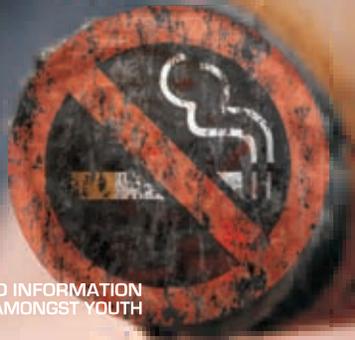


# Burden of *bidi* use in India

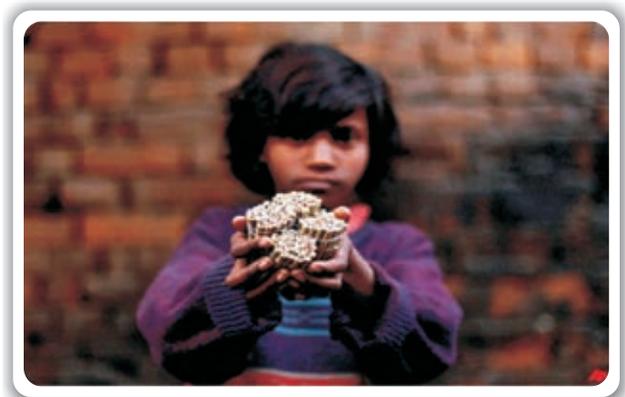


**HRIDAY** HEALTH RELATED INFORMATION  
DISSEMINATION AMONGST YOUTH



## Background

- Bidi is made by rolling a dried, rectangular piece of temburni leaf (*Diospyros melanoxylon*) with 0.15-0.25gm of sun-dried, flaked tobacco into a conical shape and securing the roll with a thread.<sup>i,ii</sup>
- Bidis are the most popular tobacco products smoked in India covering 48% of the tobacco products market.<sup>iii</sup>
- Bidi production is fragmented and most brands are hand-rolled in individual homes on a small scale. The bidi industry is therefore, considered to be a cottage industry and is the least taxed tobacco product.<sup>iv</sup>
- In India 9.2% adults smoke bidi (16.0% of males and 1.9% of females).<sup>v</sup>



A girl trapped in bidi rolling in West Bengal<sup>1</sup>

## Health effects

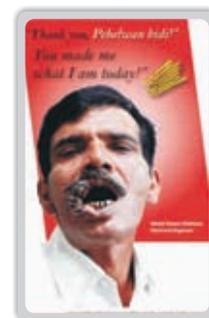
- Studies indicate that bidi smoking is associated with cancer and other adverse health conditions.<sup>vi</sup>
- Bidis are a combustible tobacco product. Smoke from a bidi contains three to five times the amount of nicotine as a regular cigarette and places users at risk for nicotine addiction.<sup>vii</sup>
- Male bidi smokers die six years earlier than their non-smoking counterparts while female bidi smokers die about eight years earlier.<sup>viii</sup>
- Bidi contains higher concentrations of nicotine than conventional cigarettes.<sup>ix</sup>
- Research indicates that bidis are hazardous to health and the delivery of nicotine in sufficient quantities initiates and sustains dependence.<sup>x</sup>



Damaged hand of a bidi roller<sup>2</sup>

<sup>1</sup><http://www.indiatvnews.com/news/india/incredible-india-around-95-percent-families-of-a-village-trapped-in-life-of-bidi-rolling-in-west-bengal-15032.html>  
<sup>2</sup><http://m.english.astroawani.com/photos/album/beedi-making-1968/indian-beedi-worker-amana-shows-some-beedies-22312>

- Bidi smoking poses a very high risk for lung cancer even more than that of cigarette smoking.<sup>xi</sup>
- Bidi smoking increases the risk for oral cancer, lung cancer, stomach cancer, and esophageal cancer.<sup>xii, xiii, xiv</sup>
- Bidi smoking is associated with a more than three fold increased risk for coronary heart disease and acute myocardial infarction (heart attack).<sup>xv, xvi</sup>
- Bidi smoking is associated with emphysema and a nearly fourfold increased risk for chronic bronchitis.<sup>xvii</sup>



## Condition of tendu leaf pluckers and bidi workers

- It is not a profitable cash crop and is seasonal as which lasts just over 2 months in a year.<sup>xviii</sup>
- The income of the tendu leave pluckers is extremely low and involves hours of arduous labour.<sup>xix</sup>
- 76 districts where tendu is plucked and eight important bidi rolling centres<sup>xx</sup> are in the poorest 100 districts as identified by the Government of India.<sup>xxi</sup>
- According to a rough estimate, the difference between estimated tendu produced versus total bidis made is nearly 40 to 50% and is met through illicitly or privately traded tendu.<sup>xxii</sup>
- Bidi rollers work in very unhealthy conditions and in rooms without ventilation.
- The International Labour Organization (ILO) 2001 report stated that bidi workers suffer from various occupational hazards.<sup>xxiii</sup>
- A large literature has examined the health effects on bidi workers in India to reveal similar respiratory, dermatological, ophthalmic and podiatric issues.<sup>xxiv</sup>
- Most common morbidity among bidi rollers is fatigue,<sup>xxv</sup> musculoskeletal problem, followed by eye and respiratory problems.<sup>xxvi</sup>
- Besides the musculoskeletal problems they suffer from cough, breathlessness, acidity, generalized weakness, skin diseases (dermatitis) and tuberculosis.<sup>xxvii</sup>
- Most of them are not aware of the benefits provided for them.<sup>xxviii</sup>
- Bidi companies pay very low wages, as low as Rs 23/per 1000 bidis rolled in certain parts of India. Due to this reason, this work is mostly done by women and children.
- Majority of the tobacco workers want to shift from their present occupations which have kept them in unending poverty, to safer alternative means of livelihood.<sup>xxix</sup>



## Economics of bidi

- The annual economic output per bidi worker is about US\$143, which is negligible compared to the huge economic losses due to bidi smoking every year.<sup>xxx</sup>
- According to a study in Karnataka, average monthly beedi income is Rs.882.6 which contributes only 14.3% of the household income.<sup>xxxi</sup>
- Poorest of Indians smoke nearly INR 13000 crore worth bidis every year.<sup>xxxii</sup> This money can be used for providing for food and basic education for the bidi smoker's children.
- It is estimated that roughly 10% of all female beedi workers, and 5% of all male beedi workers, are children under 12 years of age.<sup>xxxiii</sup>



Bidi roller with Skin Disorder at a bidi workers hospital<sup>3</sup>

<sup>3</sup><http://m.english.astroawani.com/photos/album/beedi-making-1968/beedi-making-22314>



- In India the bidi industry operates across 17 states, with over 95% of its production concentrated only in 10 states.<sup>xxxiv</sup>
- The industry employed approximately 3.4 million full-time workers, which comprise about 0.7% of employment in all sectors. A further 0.7 million were part-time workers.<sup>xxxv</sup>
- Bidi workers are among the lowest paid employees in India.<sup>xxxvi</sup>

### Urgent need for strict regulation of the Bidi Industry

- Bidi packets should have large pictorial health warnings proportionate to the health risks of bidi use on bidi smokers.
- Keeping with Article 17-18 of the WHO-FCTC, India needs to scale up successful pilot projects of alternative livelihood for bidi rollers, tendu pluckers and bidi tobacco growers.
- Raising bidi taxes to Rs 98 per 1000 sticks would add Rs 36.9 billion to tax revenues and prevent 15.5 million current and future smokers dying prematurely.<sup>xxxvii</sup>
- Eliminate all tax exemptions extended to homemade bidis
- Eliminate child labour in bidi rolling and tendu leaf collection and ensure minimum wages and fair working conditions for all bidi rollers.
- Bidi smoking kills and it must be subject to strict regulation no less than any other tobacco products
- Bidi is not poor man's pleasure – it only exemplifies poverty, disease and death in the country.



Child labour in bidi rolling<sup>4</sup>

### REFERENCES

- <sup>i</sup> Reddy K.S, Gupta P.C Eds. Tobacco Control India Report. Ministry of Health and Family Welfare. 2004
- <sup>ii</sup> Centers for Disease Control and Prevention. Bidi Use Among Urban Youth—Massachusetts, March–April 1999. Morbidity and Mortality Weekly Report 1999;48(36):796–9
- <sup>iii</sup> Gupta PC, Asma S. Bidi smoking and public health. New Delhi: Ministry of Health and Family Welfare, Government of India; 2008
- <sup>iv</sup> Gupta PC, Asma S. Bidi smoking and public health. New Delhi: Ministry of Health and Family Welfare, Government of India; 2008
- <sup>v</sup> Global Adult tobacco Survey India Report, 2009-10.
- <sup>vi</sup> Yen KL, Hechavarría E, Bostwick SB. Bidi Cigarettes: An Emerging Threat to Adolescent Health. Archives Pediatrics & Adolescent Medicine. 2000;154:1187–9
- <sup>vii</sup> Delnevo CD, Pevzner ES, Hrywna M, Lewis MJ. Bidi Cigarette Use Among Young Adults in 15 States. Preventive Medicine 2004;39:207–11
- <sup>viii</sup> John RM, Rao RK, Rao MG, Moore J, Deshpande RS, Sengupta J, Selvaraj S, Chaloupka FJ, Jha P. The Economics of Tobacco and Tobacco Taxation in India. Paris: International Union Against Tuberculosis and Lung Disease; 2010.
- <sup>ix</sup> Malson L J, Sims K, Murty R, Pickworth W B, Comparison of the nicotine content of tobacco used in bidis and conventional cigarettes, Tob Control, BMJ,2001, 10 (2)
- <sup>x</sup> Malson L J, Sims K, Murty R, Pickworth W B, Comparison of the nicotine content of tobacco used in bidis and conventional cigarettes, Tob Control, BMJ,2001, 10 (2)

<sup>4</sup><http://asiancorrespondent.com/78379/indian-girl-trapped-in-life-of-cigarette-rolling/>

- <sup>xi</sup> R. Prasad, R. C. Ahuja, S. Singhal, A. N. Srivastava, P. James, V. Kesarwani, and D. Singh A case-control study of bidi smoking and bronchogenic carcinoma *Ann Thorac Med.* 2010 Oct-Dec; 5(4): 238–241.
- <sup>xii</sup> Rahman M, Fukui T. Bidi Smoking and Health. *Public Health* 2000;114:123–7
- <sup>xiii</sup> Rahman M, Sakamoto J, Fukui T. Bidi Smoking and Oral Cancer: A Meta-Analysis. *International Journal of Cancer* 2003;106:600–4
- <sup>xiv</sup> Sankaranarayanan R, Duffy SW, Padmakumary G, Nair SM, Day NE, Padmanabhan TK. Risk Factors for Cancer of the Oesophagus in Kerala, India. *International Journal of Cancer.* 1991;49:485–9
- <sup>xv</sup> Rahman M, Fukui T. Bidi Smoking and Health. *Public Health* 2000;114:123–7
- <sup>xvi</sup> Pais P, Pogue J, Gerstein H, Zachariah E, Savitha D, Jayprakash S, Nayak, PR, Yusuf S. Risk Factors for Acute Myocardial Infarction in Indians: A Case-Control Study. *Lancet* 1996;348:358–63
- <sup>xvii</sup> Rahman M, Fukui T. Bidi Smoking and Health. *Public Health* 2000;114:123–7
- <sup>xviii</sup> Research Study by VHAI on Tobacco and Poverty in India, Research Centre for Tobacco Free India, Available from: [http://www.rctfi.org/tobacco\\_poverty\\_study\\_press.htm](http://www.rctfi.org/tobacco_poverty_study_press.htm)
- <sup>xix</sup> Research Study by VHAI on Tobacco and Poverty in India, Research Centre for Tobacco Free India, Available from: [http://www.rctfi.org/tobacco\\_poverty\\_study\\_press.htm](http://www.rctfi.org/tobacco_poverty_study_press.htm)
- <sup>xx</sup> Lal P. Bidi—a short history. *Current Science.* 2009;96:1335–1336.
- <sup>xxi</sup> Planning Commission. 2001. Expert Group on poverty estimation 1999–2000. New Delhi: Government of India.
- <sup>xxii</sup> Pranay Lal. Estimating the Size of Tendu Leaf and Bidi Trade Using a Simple Back-of-the-Envelope Method *Ambio.* 2012 Mar; 41(3): 315–318.
- <sup>xxiii</sup> ILO. The beedi sector in India: an overview- improving working conditions and employment opportunities for women workers in beedi industry. Mangalore, Karnataka, India: International Labour Organization, 2001.
- <sup>xxiv</sup> Mittal S, Mittal A, Rengappa R. Ocular manifestations in bidi industry workers: possible consequences of occupational exposure to tobacco dust. *Indian J Ophthalmol* 2008;56:319–22. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2636170&tool=pmcentrez&rendertype=abstract>
- <sup>xxv</sup> Sabale RV, Kowli SS, Chowdhary PH. Working condition and health hazards in beedi rollers residing in the urban slums of Mumbai. *Indian J Occup Environ Med [serial online]* 2012 [cited 2015 Apr 16];16:72-4. Available from: <http://www.ijoem.com/text.asp?2012/16/2/72/107075>
- <sup>xxvi</sup> Madhusudan M, DipakPatil, Jayaram S. Occupational Health Profile of Beedi Workers in Coastal Karnataka. *National Journal of Community Medicine!* Volume 5! Issue 2! Apr – June 2014
- <sup>xxvii</sup> K.P. Joshi, M. Robins, Parashramlu, Venu and K.M. Mallikarjunaih. An epidemiological study of occupational health hazards among bidi workers of Amarchinta, Andhra Pradesh. *J. Acad. Indus. Res.* Vol. 1(9) February 2013.
- <sup>xxviii</sup> Sabale RV, Kowli SS, Chowdhary PH. Working condition and health hazards in beedi rollers residing in the urban slums of Mumbai. *Indian J Occup Environ Med [serial online]* 2012 [cited 2015 Apr 16];16:72-4. Available from: <http://www.ijoem.com/text.asp?2012/16/2/72/107075>
- <sup>xxix</sup> Research Study by VHAI on Tobacco and Poverty in India, Research Centre for Tobacco Free India, Available from: [http://www.rctfi.org/tobacco\\_poverty\\_study\\_press.htm](http://www.rctfi.org/tobacco_poverty_study_press.htm)
- <sup>xxx</sup> Nandi A, Ashok A, Guindon GE, et al. Estimates of the economic contributions of the bidi manufacturing industry in India, *Tob Control*
- <sup>xxxi</sup> Madhusudan M, DipakPatil, Jayaram S. Occupational Health Profile of Beedi Workers in Coastal Karnataka. *National Journal of Community Medicine!* Volume 5! Issue 2! Apr – June 2014
- <sup>xxxii</sup> Global Adult tobacco Survey India Report, 2009-10.
- <sup>xxxiii</sup> [http://www.rctfi.org/bidirollinginindia\\_4.htm](http://www.rctfi.org/bidirollinginindia_4.htm)
- <sup>xxxiv</sup> Nandi A, Ashok A, Guindon GE, et al. Estimates of the economic contributions of the bidi manufacturing industry in India, *Tob Control*
- <sup>xxxv</sup> Nandi A, Ashok A, Guindon GE, et al. Estimates of the economic contributions of the bidi manufacturing industry in India, *Tob Control*
- <sup>xxxvi</sup> Nandi A, Ashok A, Guindon GE, et al. Estimates of the economic contributions of the bidi manufacturing industry in India, *Tobi Control*
- <sup>xxxvii</sup> John RM, Rao RK, Rao MG, Moore J, Deshpande RS, Sengupta J, Selvaraj S, Chaloupka FJ, Jha P. The Economics of Tobacco and Tobacco Taxation in India. Paris: International Union Against Tuberculosis and Lung Disease; 2010.

