

Environmental Impact

Deforestation

Deforestation is the clearing of land by cutting or burning large areas of trees. Deforestation is a very serious world environmental problem. An area of forest equal to 20 football fields is lost every minute. An area of forest the size of Florida is destroyed every year. The loss of forests causes many environmental problems, such as soil erosion, flooding, global warming, and loss of habitat for many animals and plants.

The growing of tobacco adds to the problem of deforestation. One in eight trees cut down in the world is due to tobacco growing or curing. Forests are cleared to grow tobacco. But, it is the cutting down of trees for fuel to dry tobacco that is a major cause of deforestation. In order to prepare tobacco for cigarettes and other products, it has to be dried by using heat. This drying process is called curing.

Most of the tobacco grown in the world is cured by burning wood. For every 300 cigarettes manufactured, one tree is cut down for curing. As a result, almost nine million acres of forests are lost each year.

The threat of Tobacco farming

Globally, the tobacco industry is one of the most lucrative. It forms a vicious cycle involving the farmer, the manufacturer, the state and the unfortunate consumer.

As a result, the tobacco pandemic has struck developing countries like a brush fire. The personal and social distress, not to mention the associated economic losses, in poverty stricken countries of this pandemic are largely sustained by a self reinforcing cycle of poverty, tobacco farming and illness.

This article aims to question the how an industry, with such widely known damaging effects, can be allowed to continue to wreck havoc across the world, without any checks being imposed. The answer and the solution to the problem lies in analyzing who benefits the most from its ongoing existence.

A Global Threat:

The multi-faceted range of problems relating to tobacco farming, tobacco product manufacturing, tobacco product sale, and ultimately consumption affects all countries but particularly the developing nations. Tackling the problem on a global level is a huge problem since every country has its own individual dimensions adding to the overall problem. The following presents the current situation in three of the most affected countries.

China An average regular smoker in China consumes 1791 cigarettes annually.(1) However this astounding amount of tobacco is being consumed individually without restriction, as all income generated by its production and consequent sale provides revenue for the state. In fact the “Law of the People’s Republic of China on Tobacco Monopoly” provides legal support encouraging this high level of consumption, making China the leading tobacco producer and consumer globally. Meanwhile The China Tobacco Leaf Production Procuring and Sale Corporation signs procurement contracts with tobacco growers through its local agencies. This means that the raw ‘ingredients’ for tobacco farming, such as seed and fertilizer, are provided by state tobacco companies at minimal prices. In exchange the law ensures that the state tobacco corporations are sole buyers for all tobacco leaf produced. Therefore the Chinese government operates the tobacco business and thus benefits of both profits and income generated from revenues. Unlike any other countries, the China government receives direct revenue enhancements from cigarette sales, making the entire tobacco industry indispensable to the state.

Brazil Brazil is ranked second in the world after China. Annual consumption of cigarettes per person is one of the highest in the world, averaging 858 cigarettes. Approximately 135, 000 family farmers depend on tobacco farming for their livelihood. Economic statistics from 2000/01 show that the states of Paraná, Santa Catarina and Rio Grande do Sul produce on average 3.74 tones/ha.(1) Considering that the southern states of Brazil are some of the poorest in the country, tobacco farming in this region offers food security to farmers. The manufacturing sector in this region exploits the interest of these

poor farmers by use of an 'integration' package which caters for technological assistance, sponsors part of the grower's production costs and guarantees the purchase of any harvest, hence providing a price insurance mechanism to encourage production. Alternative farming opportunities for farmers are not as economically lucrative, so production of tobacco is very attractive to farmers. Additionally the region of Northeastern Brazil, the heart of the cigar industry, has thousands of employment opportunities for skilled laborers in the trade of hand rolling of cigars.

All these factors make the Brazilian economy largely dependent on revenues from tobacco farming and the associated manufacturing sector. A thriving tobacco pandemic here has resulted in the alarming statistic that 2.7 million children and adolescents smoke in Brazil. To counter this, the government has excluded tobacco from its support policies of loans or minimum pricing. However the prosperous tobacco industry offers such attractive price insurance, that it the industry can maintain and encourage supply independent of government support. Also the pandemic is encouraged by the fact that Brazilian cigarette prices are among the lowest in the world.

India India is the third largest producer of tobacco in the world, producing roughly 701,700 metric tons of tobacco a year.(1) No data on Indian smokers or their habits has been collected in reliable surveys, but it is a well known fact that the number of smokers in India is increasing by half a million each year.

Some two million people are engaged in leaf collection with 4.4 million people employed directly for 'bidi' rolling. Unfortunately, 'bidi' rollers escape tax laws as they are produced in the cottage industry, and any attempts to raise the revenues from tax are seen as an attack on the poor, hence is politically inexpedient.

In India, the average annual income of a tobacco farmer is \$250 and 67% of this is spent on food items.(2, 3) Despite increasing awareness among the masses about its health hazards, tobacco is one of the most lucrative crops for small-scale farmers. Unfortunately in transferring from growing crops to tobacco, a farmer's family has to either spending more on food or reducing their food consumption, which leads to malnourishment and starvation. The level of investment then required by poor tobacco farmers makes them likely to be in debt and stay in debt. This traps the farmer in a debt cycle, giving them no option but to keep cultivating this crop irrespective of the long-term, veiled hazardous consequences.

To make matters worse, the Indian government has recently promoted the production of tobacco by producing policies promoting tobaccos farming and encouraging research into the farming practices of tobacco. These policies have been produced to ensure the government continues to benefit from the massive amounts of revenue produced by the sale, industrial taxes, and crop taxes associated with tobacco, ignoring the damage of this industry on its people.

Why Grow Tobacco? Consumption of tobacco is higher in the developing world and is documented to be rising. Out of the total 1.3 billion smokers across the globe, 84% live in transitional or developing countries.(9) Tobacco is therefore both a cause and a consequence of poverty. Sadly many people spend their valuable finances on tobacco products, for example homeless children in India who often prioritizing tobacco over food.

Meanwhile tobacco farming itself deprives million of poor children across the world from accessing their basic right of education as it is a labor-intensive crop. Poverty stricken, usually large, families in the third world countries have no choice but to send their children to earn money in farming tobacco, irrespective of the consequences posed by this industry as a whole.

A study in Bangladesh by UNICEF focused on the hardships of children who worked in the 'bidi' rolling industry. Thirteen percent of the children surveyed were below the age of nine.(3, 6) Furthermore, bidi rolling is a monotonous mechanical job that offers no intellectual outlet to these children. Although millions of children are illegally used for child labor in this industry, countries like India ignore this fact by not having them on official payrolls. Not only does this child labor barely make ends meet for the family in the short term; it also jeopardizes the long term economic development of nations by creating huge

productivity loss.

The Farmer's Health: The health hazards suffered by tobacco farmers usually do not get much attention. Green tobacco sickness (GTS) is caused by the dermal absorption of nicotine from wet tobacco leaves during tobacco cultivation. This results in symptoms including difficulty breathing, nausea, vomiting, headaches, weakness, abdominal cramps and heart rate fluctuations in. Although dermal contact can be avoided by wearing protective clothing or gloves, the poor normally cannot afford this extra equipment.(7, 8,) In countries such as Pakistan and India, GTS is a major health concern.

Also application of pesticides is essential for successful cultivation. Farmers often use aldicarb, chlopyrifos, and 1, 3 dichloropropene. Aldicarb use correlates with an increasing number of genetic mutations. Chlopyrifos, an organophosphate compound, can cause pesticide poisoning with symptoms of CNS damage and convulsions. Dichloropropene cause respiratory problems with eye irritation, skin irritation and renal damage. In addition to these specific problems, there is an increasing incidence of depression and suicide amongst the tobacco farmers of Brazil. These neuro-psychiatric effects are thought to be due to the organophosphates used in tobacco farming.(4, 5)

The Consumer's Health: The incidence of tobacco-related diseases, for example carcinoma, is expected to rise to 10 million per year by 2030.(9) Cigarette smoking causes several diseases of the pulmonary system ranging from chronic bronchitis to emphysema (COPD). In addition to the 87% of lung cancers caused by smoking, smoking also causes cancers of the oral cavity, pharynx, esophagus, kidney, bladder, uterus and pancreas.

Ischemic heart disease is another consequence of tobacco consumption. Smoking high-yield cigarettes causes an increase in the rates of myocardial infarction. Ischemic heart disease is already the leading cause of death in Brazil, according to the World Health Organization, followed closely by cancers. In Brazil, where 29.3 percent of women smoke, prenatal death and infant mortality is also high as a result of low birth weights accountable to smoking.

Bangladesh is another country in South Asia that has an increasing burden of disease and a decreasing life expectancy due to smoking. Lung cancer is the third most frequent cancer in males and childhood malnutrition is extremely common in this country, where a substantial amount of money is spent on tobacco products over food.(2) In fact it is calculated that smoking five cigarettes a day by one Bangladeshi leads to a monthly deficit of 33.5mJ of energy, putting the survival of Bangladeshi children at stake