

Shannon Cooney
Millard North High School
India, Factor 11

The Dirty Job of Cleaning India

To see India is to open your mind to a new world, one that is vast and astoundingly beautiful, inhabited by people as diverse as the flora and fauna they are surrounded by. Vivid colors grace the natural landscape, contrasted by the exceptional workmanship of various monumental structures that together create the spectacular view that is India. Yet beyond the luxuriant landscape, the sight of human suffering is inescapable. Here, the resonating thematic concept is massiveness, in both richness and need. It is rich because there is such an abundance of natural wealth, yet needy because the history of India is riddled with futile attempts at containing and treating its waste, creating an epic of disease. The rivers are boiling stews of muck, the fields are heaping piles of dung, and the stench of it all is too much to bear unless you are native to the area and therefore used to it all. What are the effects of this terrible situation on the people, what is prohibiting change from occurring, and how can one take a holistic approach in viewing this problem in order to alleviate it? Proposed here as a possible solution is a twofold plan: eliminating the cultural proclivity for open defecation and the use of manual scavengers through education of the masses, and utilizing waste as an asset in creating bio-fuel by means of specialized toilets that are cost effective.

In a place where the third leading cause of death is diarrhea, usually from feces-contaminated water, a war is being waged to create a sustainable sanitation system that prevents the spread of this and other debilitating diseases such as ascariasis, guinea worm, typhoid, dysentery, gastroenteritis, hepatitis A, intestinal worms, malaria schistosomiasis, and trachoma. The problem has reached the attention of many leaders throughout the world: the United Nation's Millennium Goal Number 7 addresses the topic of sanitation, but also states that its efforts are "bypassing the poorest" and that "disparities in urban and rural sanitation remain daunting." The UN hopes to halve, by 2015, the proportion of those without safe drinking water and adequate sanitation (United Nations). Yet the completion of this monstrous task in India is currently inhibited by many factors such as the fiscal inability of India's government to create a functioning means to transport and treat the country's waste and the disparaging poverty of much of India's populace coupled with the unsanitary traditions many people adhere to that seemingly cannot be reformed. An estimated 55% of all Indians, or close to 600 million people, still do not have access to any kind of toilet, yet have higher access to a cell phone (Indian Sanitation Portal). The consequences are dire; diarrhea, the second leading cause of death in those under age 6, kills about 1,000 Indian children a day (Asian Development Bank). "Everyone in Indian cities is at risk of consuming human feces, if they're not already," the Ministry of Urban Development concluded in September of last year (Riazhaq). Affected with the worst severity is the Indian subsistence farmer, who lives in some of the worst conditions possible in relation to sanitation, and collectively loses billions of dollars a year due to the lack of sanitation in funeral costs, medicine and healthcare (when they are available), and welfare costs. More attention needs to be concentrated on this issue as agricultural problems leading to farmer poverty and contaminated water combined is both a cyclic and multi-faceted problem, and therefore requires a solution as complex as the difficult situation at hand.

In order to better elucidate the issue of sanitation for this country, all circumstances of the general Indian populace relative to this topic must be examined and then evaluated in totality. Because of its considerable size in both area and population, difficulty arises in how to conceive a network of sewers that are capable of containing such a large amount of waste safely. With a GDP per capita of around \$3,000 the public cannot afford a large expenditure to aid the building of a system that covers the 15% of Indians that have no access to running water (Google, Public Data). Close, crowded conditions in large cities, and unhygienic ones in rural areas create an environment saturated with contaminants with

nowhere to go. Even the religious and social systems of the area play a part in abetting the water-borne turmoil. The still present, though illegal caste system contains a group of people known as Dalits who make up about 25% of the population, and within that group is yet another known as the *safai karamcharis*, or “manual scavengers” (The Big Necessity). This social hierarchy forces these people to do the most menial and degrading jobs, one of which being the receiving and hauling of the waste of higher castes, a practice still prevalent in many rural areas. Also, the Hindu religion that is widely practiced among this group of people prohibits the defecating in dwelling areas, making organized campaigns that promote the usage of toilets in the home ineffectual. But most of all, the lack of sanitary hygiene habits is what aids the spread of contagions throughout the area in food and drinking water, as general ignorance and a rigid respect for tradition is the endemic condition. In rural areas, the problem is even more exceedingly prevalent as 74% of the population still defecates in the open and only 22% have toilets (Cooper).

First, a general overview of the typical Indian subsistence farmer’s lifestyle must be reviewed before proposing a solution to better his condition. The typical Indian farmer grows wheat, barely, henna, and many other crops on about one half hectare of land to provide for a family of five, living on about the equivalent of one dollar a day (The South Asian). He usually is a tenant on the land, that is, he toils and lives on it, but does not own it. He generally eats the food he grows: a dangerous act, because he often defecates in the fields in which he tends to his crops. According to the World Bank, slow agricultural growth is a concern for policymakers as about two-thirds of India’s people depend on rural employment for a living (Institute of Advanced Management Education and Entrepreneurship). Current agricultural practices are neither economically nor environmentally sustainable at this time and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems, a great deficit of education and almost universal lack of good extension services are among the factors responsible. Also, mechanization from the Green Revolution has put many farmers out of work, unable to compete with those with the resources to utilize machinery. The general situation for the farmers is dire; the work is difficult, and there is little education for these people on how to properly tend to their crops. Though this country is going through a previously unprecedented economic growth, the 600 million farmers are suffering for it as agricultural work becomes more difficult and in some cases, unbearable: about 18,000 farmers commit suicide a year mainly due to crop failures (The South Asian). Such a tremendous and dismal statistic should not be added to by more farmers who end their lives from the additional burden of the death of a child from a water-borne illness.

Children are affected in ways that are less subtle than death from such illnesses. Education and nutrition are placed in a state of crisis; as more children abandon their schooling after sickness from unhygienic conditions ravage the area, the amount of young educated people declines. In rural schools, instruction in basic hygiene such as hand washing is limited, if existent at all, and cannot be reinforced in school buildings that lack running water and lavatories (Water and Sanitation Program). Girls especially are affected by the lack of sanitation at school and at home: many are forced to quite their schooling due to the decrepit sanitation units that the school must force the children to use, if any exist at all. Also, the forced practice of public defecation defiles their privacy and pride, as they are forced to commit an act of uncleanness around the opposite gender without the relief of concealment. This is made especially difficult when it is compounded with the issue of their menstrual cycles and the problem of mal-nutrition that this brings: 70% of all Indian girls are anemic (lacking of iron) which can lead to stunted growth, among many other ailments (ExpressIndia). However, efforts are being made by the government to alleviate the struggles of schools to make children stay and receive an adequate education, as the School Water Supply, Sanitation and Hygiene Education Programme (SSHE) is one of the prime concerns of Government of India. At present, SSHE programme is running in about 400 districts with an objective of providing sanitation facilities in 0.35 million schools with financial outlay of approximately US\$ 1,500 million (School Sanitation and Hygiene Education in India). This however, only addresses the issue that is present in schools, and does not broach the subject of what goes on at home.

The rural farmer and his family must every day make the trek with his neighbors to a designated area to fulfill a daily burden that is both degrading and dangerous to their health. Defecating in the open is a practice that right now is a plague on the Indian effort of eradicating water-borne disease and hardly anything seems to cure it, with an estimated 100,000 tons of excrement are added to the growing mounds in India each day (Riazhaq). Even the government's aggressive campaign for the betterment of the sanitation situation is failing as a whole sadly, and in some areas, miserably. The progression is minimal because the problems lie much deeper than just the lack of public and private toilets rather, they are rooted in the culture and traditions of the area, two in particular: the practice of open defecation and the usage of manual scavengers.

The landscape in India is still littered with 13 million unsanitary bucket latrines, which require scavengers to conduct house-to-house excreta collection (Asian Development Bank). Not only do the negative repercussions of this practice affect the rural farmers, but even more harshly they affect the manual scavengers who are forced to clear the waste. Over 700,000 Indians still make their living in this manner even though technically it is part of the caste system, making it illegal (The Big Necessity). They are a sub-group of people, known as untouchables, who are cast away from society. They can associate with no one in castes higher than the one in which they reside, and have no hope of ever creating a better life for themselves or their descendents who are expected to fulfill the same role as their predecessors. In a Dalit family, often times the men will be allowed to work at some other craft, while the women will always be forced to take his job as manual scavenger, putting the female at a severe disadvantage in this rural culture. Such a social structure creates tension and inequality between its levels of people and even between genders, and is currently being reinforced by the issue of sanitation though many have tried to eliminate it over the years.

The effects of these two social factors are present in all aspects of life, even in the quality of the production of food and in the environment's corruption. Open defecation often takes place in fields and near water supplies, which contaminates these sources of nutrients and spreads disease orally. The environment, in particular rivers and other small bodies of water, is being degraded with astounding severity: 75% of the country's surface water is contaminated by human and agricultural waste and industrial effluent (Sanitation Updates), as India's several hundred rivers receive millions of litres of sewage, industrial and agricultural wastes. For instance, the great and holy Ganges River, revered as the source of life in India and a gift from the gods, is severely polluted by human corpses, chemicals, trash, and human and animal waste among many other such grotesque materials. The otherwise beautiful Yamuna River is described as natives as "being dead." The great Damodar is the most polluted river in the country, due to the several industrial powers that have arrived and grown on its mineral-rich banks (CNN). 80% of the country's urban waste goes directly into rivers, many of which are so polluted they exceed permissible levels for safe bathing. There are economic repercussions, too. Shreekant Gupta, a professor at the Delhi School of Economics who specializes in the environment, estimates that lost productivity from death and disease resulting from river pollution and other environmental damage is equivalent to about 4% of the gross domestic product (CNN).

India is a country that is growing rapidly in both population size and in its economy, while seemingly sustaining some growth through the worldwide recession that we now face, mainly due to government stimulus packages and outsourcing of jobs from developed countries. This and other factors, such as water scarcity and pollution could have great effects on the fight for a better-sanitized India in both negative and positive ways. Over-crowding in cities for one, is creating great difficulty in devising a sewer system that can safely and effectively hold all of its waste without leakage or overflowing, issues that are currently very much a part of life for these people. In the rural parts of India, globalization and with it, urbanization, makes farming life become even more difficult, stripping many farmers of the little wealth that they had to start with. However the boosted economy in other parts of the country are doing

great things in allowing the newly formed middle class to supply themselves with toilets and necessary sanitary items, contributing to the recent influx in toilet use.

But what, at this point in time has already been done to amend this issue? India's government has made significant progress in this area, as the goal of its Total Sanitation Campaign is to provide "sanitation for all." Especially in rural India, where public defecation is everywhere, special efforts have been made in the forms of campaigns, donations, and lectures by multiple organizations to promote and achieve proper sanitation in homes, schools, and other institutions. The results are encouraging: more girls stay in school, there is an augmentation in jobs, a decreased number of deaths, rates of disease are going down, and poor people have a greater chance at better living conditions. According to Asia Water Watch 2015 more people in India will have improved their sanitation situation from 1990 to 2015 than the total number of people currently residing in the United States if the rate of improvement stays at its current position (Asian Development Bank), due to a mixture of a heightened amount of both knowledge and toilets. Impressive, but many countries with lower GDPs achieved higher rates of improved access to sanitation such as Nigeria, Mongolia, Bangladesh, and Pakistan in 2006, demonstrating the need of more aid in India. The problem lies deeper than a superficial need of more toilets and latrines, and rather in the inherent culture of the area.

Education of the masses and a viable means to construct toilets and sustain their use are actions that must be taken in order to reach the lofty Indian goal of "Sanitation for All." Both of these strategies are currently in place, but can be expanded upon a considerable amount for the betterment of this cause in order to reach the desired results. Also, proposed here is the use of benchmarks to gauge progress in the area of making India an open-defecation free country as prescribed by the Water and Sanitation Program, instead of measuring progress of the input-output model whose factors are how much of the budget is spent and how many toilets are constructed, which does not measure true progress at all. Rather, it creates a sort of complacency that allows higher powers to sit back and bask in the job well done of building x amount of toilets when the reality is that these structures are merely gathering dust in favor of open defecation and the use of manual scavengers. Before anything further is done, we must first adopt a reliable system to accurately mark progress made in this crucial area. Education is the second area that closely needs to be examined. Different methods have been employed by different powers of educating the Indian masses about proper hygiene and the negative health implications of open defecation. However, running concurrently with what is found in American culture, one of the best ways to illicit change is to use shaming techniques on the people that appeal to their sense of needing to conform to group standards and disgust at their own decadence. As harsh as this may sound, time and time again it has been shown to work with astounding results. When compared to education programs that were informative in nature, and who's goal was to alert the people about germs and sickness, ones that were taught by fellow countrymen/women who perpetuated an air of revulsion at the present state of their sanitation situation and who spoke in simple terms of "eating your own feces," and "causing yourself shame," were received understood more quickly and had much better results. Finally, we must also supply the Indian rural farmer with the tools necessary to better his sanitation situation. Cheap alternatives to conventional toilets are currently being explored with much success; especially relevant to this area in particular is the invention of bio-gas toilets that utilize human and/or animal waste to produce bio-gas fuel, making good sanitation habits practical and even profitable.

Such advancements are encouraging, and their implications on this dubious situation are reassuring. However none of them can be furthered at a satisfactory pace unless two things happen: world organizations increase aid in this area, and the system of manual scavenging and the practice of open defecation are eliminated. Without the occurrence of these two vital things, our progress hits a glass floor so to speak, where the middle and lower middle class are most affected and those of lowest socioeconomic standing are left behind in this false progress. International organizations should concentrate their efforts on alleviating the sanitation situation, by utilizing funds to buy toilets for the

poorest of the poor. Efforts should be made in research to better the designs of these toilets to make them as affordable as possible, increasing their sales potential in India. The most important form of aid however, is the type that happens between person to person. The use of toilets needs to become an inherent part of the culture, where it is socially unacceptable to practice open defecation, a feat that can only be accomplished by making it a norm for the society through the individual. Organizations like the United Nations should stress this point, by appointing educational representatives who have connections with the each particular village or group of people, who can help to better educate it through simple and direct means.

In India with a decent sanitation system is a new India. With efforts made in the areas of eliminating the cultural proclivity for open defecation and the use of manual scavengers through education of the masses, and utilizing waste as an asset in creating bio-fuel by means of specialized toilets that are cost effective, we can make a brand new world. More children play in her streets and in her farms, while their parents look on with satisfaction. Money is saved rather than spent on expensive medical treatments and funeral expenses, which reduces poverty, and can in turn be put to better use like educating the newest generation. The general quality of living skyrockets, as hundreds of thousands of farmers now are not hampered every day by the ritual of going out to the fields to relieve themselves, contaminating their food, and endangering their lives. The contaminated rivers discussed earlier would be freed much of the sewage that is dumped into them, allowing them to flow cleaner than ever. And finally, the rural farmer is a man or woman who has a higher standard of living and a new outlook on life. This is the India we dream to see one day, but it requires that we act now and help these people to help themselves. One day this vast and beautiful world in itself will be made even more astounding with the elimination of sanitation related human suffering.

Works Cited

- 2001, By. "Meet the Indian Farmer." *The South Asian*. Web. 17 Sept. 2010.
<http://www.thesouthasian.org/archives/2005/meet_the_indian_farmer.html>.
- "Anemia Is on the Rise in India, Says NFHS Report - Express India." *Express India - Latest News, India News, Indian Cricket, World, Entertainment, Business & Finance News*. Web. 17 Sept. 2010. <<http://www.expressindia.com/latest-news/Anemia-is-on-the-rise-in-India-says-NFHS-report/336854/>>.
- "GLP in South India | Tamil Nadu." *Global Literacy Project, Inc.* Web. 17 Sept. 2010.
<http://www.glpinc.org/Web_pages/GLP-South_India_Programs.htm>.
- Home | India Sanitation Portal*. Web. 17 Sept. 2010. <<http://indiasanitationportal.org/>>.
- "Human Waste Overwhelms India's War on Disease." *SwopNet Index Page*. Web. 17 Sept. 2010.
<http://www.swopnet.com/engr/sanitation/India_sewers.html>.
- "India's Sanitation Nightmare | Sanitation Updates." *Sanitation Updates | News and Resources for Sanitation for All*. Web. 17 Sept. 2010.
<<http://sanitationupdates.wordpress.com/2009/03/31/indias-sanitation-nightmare/>>.
- Pepper, By Daniel. "Delhi's Yamuna River: India's River of Sorrow - June 11, 2007." *Business, Financial, Personal Finance News - CNNMoney.com*. 01 June 2007. Web. 17 Sept. 2010.
<http://money.cnn.com/magazines/fortune/fortune_archive/2007/06/11/100083453/index.>
- "United Nations Millennium Development Goals." *Welcome to the United Nations: It's Your World*. Web. 17 Sept. 2010. <<http://www.un.org/millenniumgoals/>>.
- "WHO | Combating Diarrhoeal Disease in India through Safe Drinking Water." Web. 17 Sept. 2010.
<http://www.who.int/mediacentre/multimedia/2002/ind_sanitation/en/index.html>.