

Political economic study on tannery industry development and subsequent effect on river pollution in Bangladesh

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博士学位論文内容要旨
Abstract

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For several decades, river pollution and fresh water depletion are viewed as one of the top environmental problems in Asian region. The Buriganga river in Bangladesh is subject to severe pollution and considered as one of the worst polluted rivers in the world. Especially, the development of tannery industry at Hazaribagh that has pulled the Bangladesh economy is causing pollution and the disruption of ecosystem to the watershed environment. As a result, the environmental problems are getting worse day by day. According to the Export Promotion Bureau (EPB) of Bangladesh, export earnings from leather sector was US\$ 401.64 million in 2009-2010, which was a major foreign exchange earner in Bangladesh economy. But about 250 tanneries at Hazaribagh are discharging their hazardous effluents everyday directly to the Buriganga without any treatment. This is responsible for the high Biochemical Oxygen Demand (BOD) and low Dissolved Oxygen (DO) values in Buriganga water. Along with the increase in export of leather sector, water quality of Buriganga decreased drastically. Analyzing the data collected through this study, it is observed that there is a trade-off relation between the export trend of leather sector and DO values in Buriganga water and such relation is a crucial problem for any developing country to continue economic growth.

The most pollution creating industry of Bangladesh, is tanning industry. It is considered as ‘dirty industry’ all over the world because of its environment polluting capacity. Among the top polluters are dozens of tanneries on the bank of the Buriganga. The development of tannery industries at Hazaribagh is having the most damaging effect on the Buriganga watershed environment, which indirectly causes the serious health problems and other socio-economic consequences. There is no fish or aquatic life in this river apart from zero oxygen survival kind of organisms. Moreover, the specialists speculate that a vast number of people will die in this area in near future. But the economy is being given priority to environment, which is very common in any developing country, like Bangladesh. Inadequate wastewater management systems, insufficient sewerage and infrastructure facilities in one hand, and lack of capital, education, effective pollution control measures and their strict enforcement on the other, may be largely responsible for this alarming problem and grave situation. Improved policies for the maintenance and regeneration of Buriganga watershed environment are the needs to be considered urgently.

The leather industry is one of the export-oriented industries of Bangladesh, which is gaining both economic and industrial importance now a day. As Bangladesh has adopted an export-led growth strategy for its economic development, it is therefore an imperative for the country to maintain a sustained growth of export to accelerate the pace of development and alleviation of poverty. But while Bangladesh boosts its export, new challenges involving health and safety, environmental and social issues are increasingly linked to trade and market access due to the problem of trade-off relation. As Bangladesh is a developing country, the existing rules of proper industrial waste treatment have always been ignored by the owners of the industries. Lack of implementation of rules by the concerned government agencies has aggravated the

environmental pollution problem. Besides, many small industries have no legal permission, may be established in future by bribing and using political power, which will deepen the problem. Immediate attention should be given to sort out the illegal establishments and prevent further increase of such industries. However, political commitment is necessary to avoid and overcome the socio-political implications, which may curb Buriganga pollution and help the country to continue achieving economic growth.

The countries of South Asia rank first in the global run toward attaining higher and sustainable economic growth and Bangladesh has attained growth in the industrial sector at a rate fastest among these countries. But the growth of industries in Bangladesh has been unplanned and without careful attention to environmental degradation and conservation. Industrial effluents are polluting the river, canal and other water bodies tremendously. Ministry of Environment (MoE) reports that the tanneries at Hazaribagh collectively dump 22,000 liters of toxic waste including cancer-causing chromium into the Buriganga every day. As a result, from the past decades, Bangladesh has been facing the problem of severe water quality and environmental deterioration of Buriganga and other linked rivers, around the capital city Dhaka because of indiscriminate and uncontrolled discharge of industrial effluents, especially the toxic tannery effluents from the Hazaribagh cluster. The adverse impacts of Buriganga pollution are going to spread upon the overall socio-economic systems and make the city unsuitable for human habitation and bio-diversity. Now it is vital for the country to protect, restore and preserve the Buriganga and its watershed environment through environmental management and conservation actions. The Government of Bangladesh (GOB) is coming up with a variety of environmental regeneration and conservation measures. There are public groups working for the environmental conservation and technology is being developed for the water quality improvement. However, neither the activity and measure for environmental conservation and regeneration are propagating easily nor the improvement of the watershed environment is moving forward at all.

The GOB has created different organizations, departments and agencies to ensure the process of environmental management and conservation for sustainable development. Though these organizations have been continuously expanding their service domain and upgrading their level of services to keep pace with the growing demand, they have not been able so far to protect Buriganga from indiscriminate discharge of toxic industrial and household wastes through their activities. The organizations are handicapped with a bunch of problems and barriers and there is no strict enforcement of existing rules and laws to control or handle the polluters. There is also some non-government, volunteer and civic movement organizations, working for facing environmental challenges. But unfortunately, the efforts by the government are not adequate to face the threat. In fact, ill conceived and ill implemented government projects, corruption and poor governance are very often aggravating the situation. On the other hand, isolated efforts by various non-government and volunteer organizations are also inadequate to cope with the crisis. From this research, it is revealed that the social structural or political economic problem is the key factor, constraining these environmental activities. In this situation, the government may take initiatives of third sector with social enterprises for maximizing the social and environmental improvements. These initiatives generally derive their impetus from voluntary organizations and operate under a wide variety of legal structures.

Finally, the tannery owners at Hazaibagh are killing the Buriganga from decades for achieving their own interests without thinking the country's environment by making collusion with the political leaders and the government. So it is very urgent to change this social structure for reviving the natural environment and the water quality of Buriganga. It may be a mistake to think that the government will by itself do all that is

necessary to protect and conserve the Buriganga. Moreover, for ensuring the ecological balance and overall safe and healthy environment for the present and future generation and also overcoming the socio-political implications of Bangladesh, all the government, private and individual development partners, environment activists and citizen should have to sacrifice our own interest, work together and cooperate each other for solving this social structural or political economic problem of Bangladesh.