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Environmental Surcharge for heavy polluters in Bangladesh – What are the options for regulated entities under this newly introduced fee?

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Abstract

Scenes and images of industrial pollution in Bangladesh always follow a call for action to the government to go tough on polluters. Even without considering administrative and political discretion, the task is monumental due to the growth of industries over the last decade. Enforcement is weak and intermittent due to shortage of inspectors of the Department of Environment (DoE). The discharge or emission standard for different industries were published in the Environmental Conservation Rules (ECR) 1997. Most industrial sectors are covered in the standards including the textile & ready-made garment sector which is the main pillar of the Bangladesh economy. Although large enterprises are required to install effluent treatment plants, recent studies and penalty reports show that these end-of-pipe solutions are underperforming. Furthermore, there have been cases of midnight dumping and bypass discharges to cut down operating costs – combined with a relatively low probability of getting caught. All these factors have made achieving ambient concentration of water specified in ECR 1997 a difficult task.

The compliance situation can improve with better enforcement of existing standards, but how far can these 17 year old standards contribute to restoration of river ecosystem is questionable. Against this backdrop, the government of Bangladesh has announced introduction of environmental surcharge in the new budget for fiscal year 2014-2015. It is expected that around 2500 entities will be charged a 1% surcharge on the value of goods they produce, which will be collected by the National Board of Revenue while the entities will be identified by DoE[1]. Apart from distributional impact of such selective policy, involvement of two distinct regulatory agencies in itself is a threat to achieving desired outcome in the context of Bangladesh. Furthermore, unlike some European countries which have such environmental surcharges, the government of Bangladesh wants to impose this on the value of produced goods and not on volume or concentration of emissions.

[1] http://www.thedailystar.net/2-500-industrial-polluters-to-face-green-tax-37214

This paper will explore whether 1% surcharge will be adequate for regulated entities to make them prevent pollution and gradually move out of the regulated list of entities. Compiling a list of textile factories that were fined for pollution in the last two years, survey will be conducted for a sample of 30 factories. Since penalty amount is already publicized in newspaper and have been used to compile the list, the factories will only be asked for their production volume and their abatement cost per unit of effluent treated. An average value for penalty weighted against their production volume is expected to serve as a function for marginal savings. A function for marginal abatement cost will also be deduced from the survey. Verifying the data with other recent survey data, the micro-economic options for an average medium size textile factory will be analyzed to compare the cost to comply, the occasional penalty averaged to per unit production, and the surcharge itself. Considering that a different regulating agency was involved in designing the surcharge policy, it is clear that the level of uncertainty in knowing pollution abatement cost is too high. It is thus expected that for most firms the cost of this extra surcharge will remain lower than the cost of compliance.

There have been previous studies in the field of environmental economics where effectiveness of emission quotas versus emission fees were analyzed. This study will differ from those as the objective is to empirically find out the effectiveness of environmental surcharge that is imposed on value of produced goods. In the context of an emerging economy, such environmental surcharge can be an effective means for green industrial development given its simplicity and capacity factor of regulatory agencies. Policy analysis of this new surcharge in Bangladesh will serve as a model for other developing economies to consider essential factors in determining the optimal level for an environmental surcharge on pollution rather than value of produced goods. The paper will also discuss whether selectivity in applying this surcharge i.e. 2500 industrial units will yield any benefits in the absence of a load-based environmental standards or fee. Moving away from command and control approach for environmental compliance, this is the first step for Bangladesh in embracing economic incentives and thus the paper will add to the knowledge base that documents such policy changes.