Improved Environmental Governance: A Framework for Action to Meet National Environmental Quality Standards for Wastewater

Project Concept Note

Background

Bangladesh has maintained an impressive rate of economic growth, averaging a five percent increase in GDP over the last decade with growth in the ready made garment (RMG) being particularly good (Figure 1). Much of this growth has been generated by small and medium-scale enterprises (SMEs) and it is likely that the future development path of Bangladesh will remain closely linked to the performance of these industries. Most of them are found near the banks of natural streams or rivers in an industrial belt around the rapidly growing urban centres in the country.

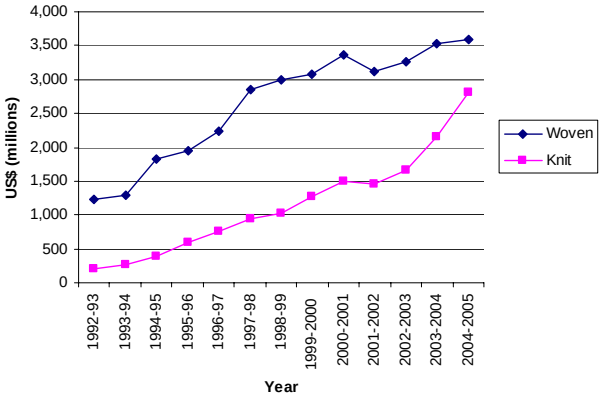

Figure 1: The Value of Garment Exports (BGMEA, 2006)

However, this positive growth in macro-economic terms has brought with it a range of problems, particularly extensive water and air pollution. The principal polluting industries are textile (dyeing and printing), tanneries and paper and pulp, the former two being principally export orientated industries. The pollution can be broadly categorized into biodegradable organic compounds, non-biodegradable or persistent organic compounds, inorganic compounds and heavy metals. All of these effluents need treatment before disposal, although the vast proportion of waste is discharged without treatment[1].

The impact on the aquatic environment can be dramatic. One of the few studies on water quality in Bangladesh, undertaken in the Kaliakoir area north of Dhaka (Clemett and Chadwick, 2006), found that the water in the southern reaches of the local wetland, where the industrial effluent entered the system, frequently has a pH of between 9 and 11, high sulphide levels, high chemical oxygen demand (COD) and biological oxygen demand (BOD), and no detectable dissolved oxygen (DO). In the nearby Turag River, regular DO sampling has revealed that at certain points there is frequently no detectable DO (Figure 2).

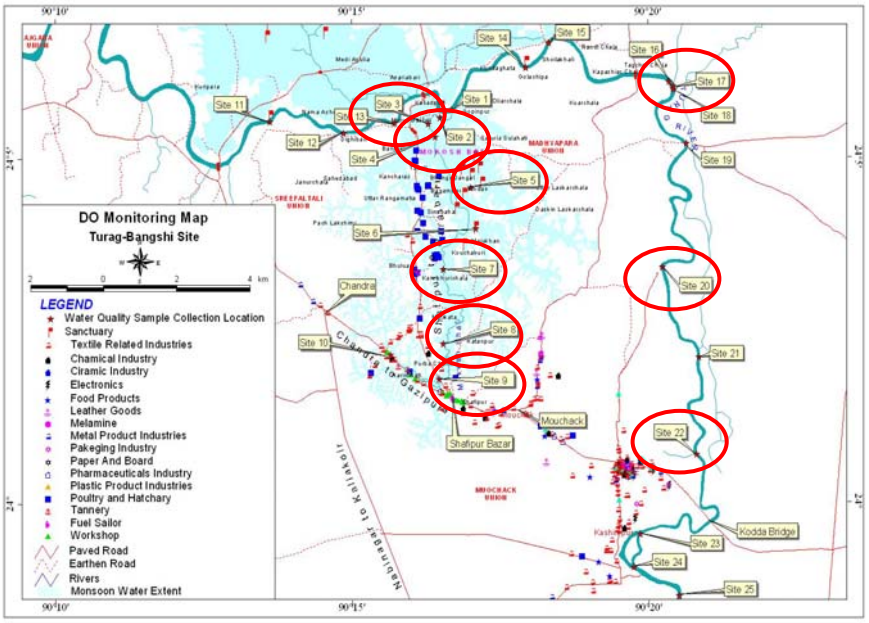

Figure 2: Mokesh Beel and the Turag River, Gazipur District, where a dissolved oxygen reading is regularly undetectable.

[1] There are limited data on this but a conservative estimate is that less than 10% of industries have an effluent treatment plant.

Consequently, sections of the river now suffer from yearly fish kills including Ganges river dolphin (*Platanista gangetica)* as a result of the pollution (Figure 3). Others also report that waste is severely affecting the rivers and canals adjacent to industrial zones (SEHD, 1998). The impact is not only on the aquatic ecology. About 80% of the country's 140 million people are rural, many relying on surface water sources for washing, bathing, irrigation and fishing, the latter of which supplies, on average, 63% of the animal protein in people's diet.

It is also not only the aquatic ecology and rural poor who suffer; the urban poor are also victims of industrial pollution (Rahman *et al*, 2001). Most slum developments are located adjacent to these industrial areas. Dhaka alone has over two million slum dwellers. One of the three targets of Millennium Development Goal 7, "Ensure Environmental Sustainability", states that "*By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers*" (Target 11) – pollution significantly lessons the chances of achieving this goal.

The problem is most acute around the numerous industrial clusters around Dhaka such as Tejgaon, Hazaribagh, Demra, Tongi, Narsingdi and Narayanganj but it is not restricted to the Dhaka industrial belt – similar problems can be found around the urban centres of Chittagong, Khulna, Rajshahi, Barisal and Syhlet. Nor is it a problem unique to Bangladesh, similar problems exist in many other countries in South and South-East Asia and mirror those faced several decades ago by many developed countries, problems which took many of them until only recently to mitigate.

Figure 3: River Dolphin killed after a pollution event, River Turag

The problem has long been recognised - water quality issues (along with other environmental issues) were emphasized in the Bangladesh Environment Policy in 1992, and more detail was outlined in the Environment Conservation Act, 1995 and Environment Conservation Rules of 1997. For over a decade it has been clear that it is not the primarily the acts, laws and rules addressing water pollution and management of water resources that are inadequate, but rather it is difficulties leading to a failure to implement them.

However, there have been few initiatives to address the problems. Clear measures for ensuring compliance with the environmental laws and regulations, including enforcement, are lacking. Without a clear strategy for action in and around the main cities, water quality will continue to worsen in the foreseeable future, constituting a major threat to millions of lives and livelihoods, especially the poor.

There are many obstacles in the transition to more sustainable industrial production and improved environmental governance – for the private sector in Bangladesh these include the cost of the technology required for treatment, which are relatively high and there is a lack of technical expertise in the country. However, recent work under a previous Asia Pro Eco project has demonstrated that these costs can be reduced and offset by improvements in production efficiency. There are also an increasing number of projects and initiatives to build capacity in the sector. The Department of Environment, the organisation responsible to regulate against degradation of the environment, and one of the key stakeholders, is woefully under-resourced, in financial and human resource terms, to meet its mandate. Consequently, the existing legislation is poorly enforced and the governance structures, such as the environmental clearance certificate process, are subject to abuse. This situation is unlikely to change in the near future. Indeed the State of Environment report in 2001, written by collaborating organisations including the Department of Environment, stated in 2001 that "*no realistic strengthening and expansion of the DoE will be able to cope*

directly with all the problems" (UNEP, 2001 p.58), and concluded that to any pollution clean-up strategy would require "*mobilization of other organizations and the public in general, including public -private partnership approaches*" (UNEP, 2001 p.59).

This proposal seeks to operationalize the process to do just this. The specific objective is to establish, facilitate and provide technical advice for a dialogue between stakeholders – the government, including local government departments across the country; Bangladeshi business associations; foreign investors and international buyers; and civil society groups that will culminate in the development of a jointly agreed environmental governance framework, and modalities of implementation for Bangladesh, based on global experiences in pollution control. In doing so, it will add value to the existing policy framework by legitimising it with stakeholders and providing a jointly agreed implementation plan on which the stakeholders (central or local) act and for which they feel a continued commitment. Such an approach could act as a model for other countries in the region such as Cambodia, Laos and Viet Nam which are facing similar wastewater management problems.

Project Approach

The project will establish a series of **Task Forces** representing the key stakeholders - national business associations, foreign business and investors associations, relevant government departments, environmental NGOs and educational institutions (Figure 4). The majority of the relevant organisations in each stakeholder group have already agreed to participate in such a process should it be initiated.

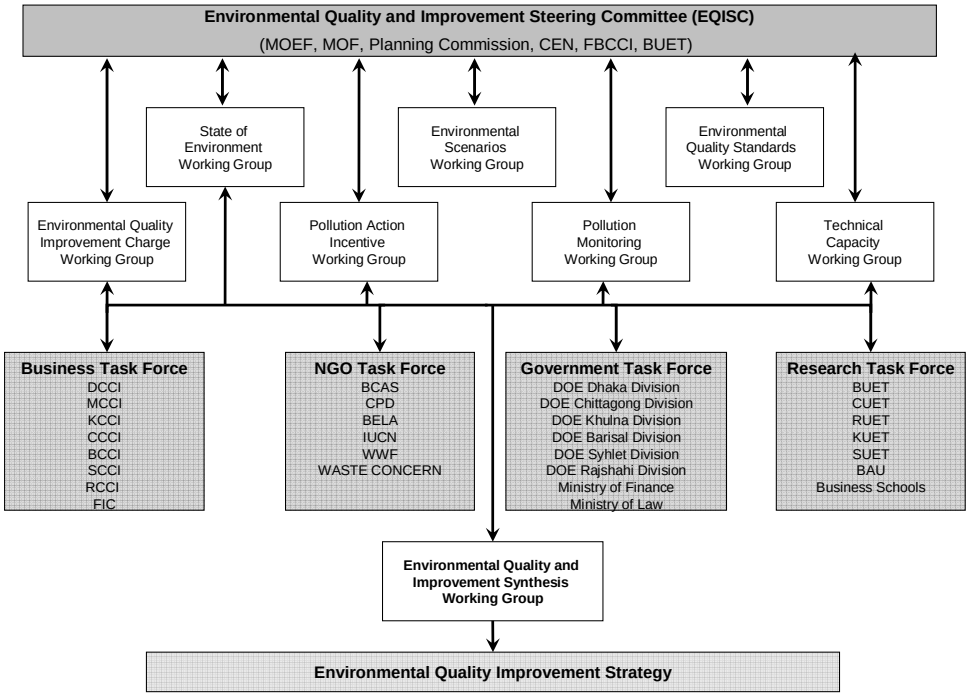

Figure 4: Project Organisational Framework

Each stakeholder group will determine who represents them on their Task Force, and the individual membership is envisaged to change depending on the issue to be addressed by the Task Forces. A series of topic specific independent project **Working Groups** involving independent experts and facilitators on the specific issues being tackled and core project members, will assess, analyse and present findings and recommendations on the specific actions required to assist in achieving compliance to the Task Forces. The facilitators will place emphasis on providing independent knowledge and advice on the key issues under debate so as to facilitate the compromises that will be required from all stakeholders, and also to identify innovative, collaborative solutions to remove key bottlenecks in the move towards compliance with the NEQS. Through a discussion and negotiation process, the project will facilitate the Task Forces reaching

agreement on each action, and based on this a Steering Committee comprising of members and mandated by the Task Forces will endorse the recommendations on behalf of all parties.
The exact actions to be discussed, negotiated and eventually agreed on will form the first component of the project but generic areas for action are: reviewing the state of the environment; reviewing and revising the national environmental quality standards for wastewater; determining incentives for improved wastewater management; mechanisms for environmental quality improvement charging; options for improving technical capacity; development of a pollution monitoring strategy. These are described in detail in the full proposal. These actions, some of which will take place in parallel, will provide the platform on which others are to be tackled. The exact actions to be discussed, negotiated and eventually agreed on will from the first component of the project but generic areas for action are summarised in Figure 5. These actions, some of which will take place in parallel, will provide the platform on which others will be tackled.

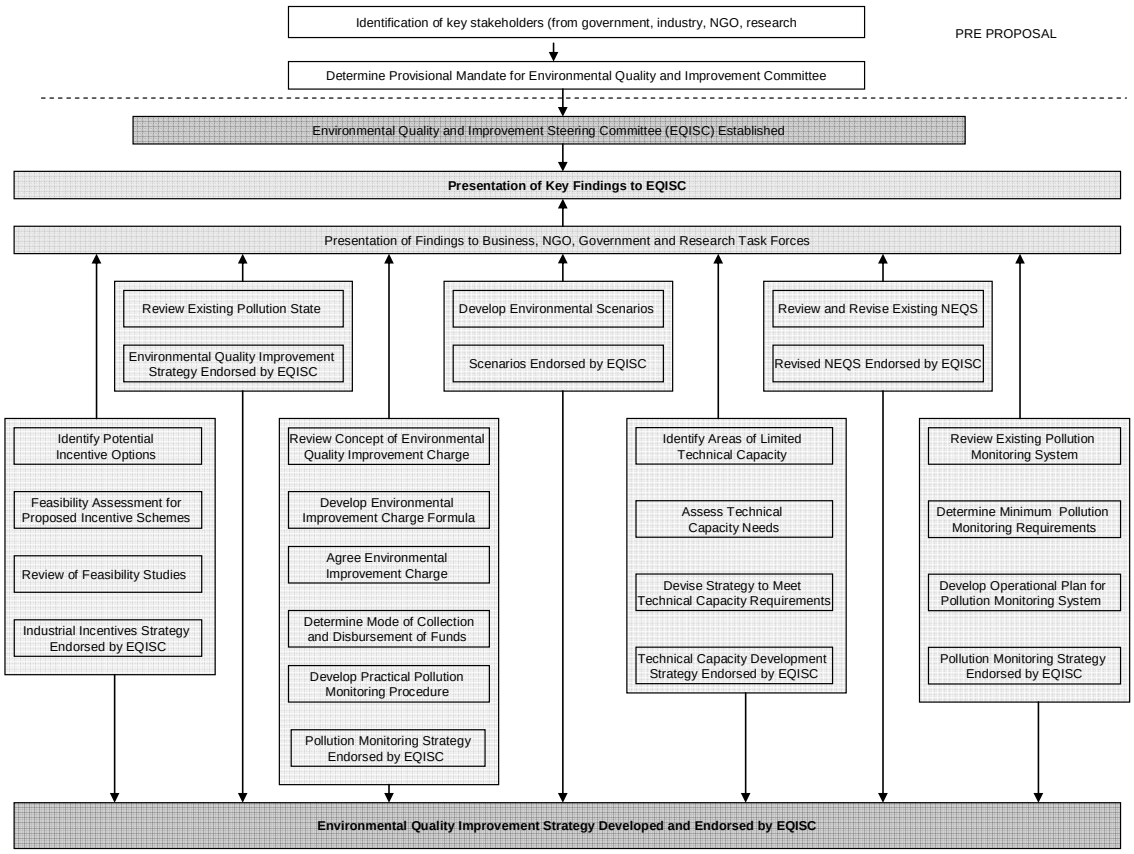

Figure 5: Project Actions

Project Partners

The project has already received commitment to the approach from several key organisations including: Department of Environment; formal and informal business associations, including the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), Foreign Investors' Chamber of Commerce (FICCI) and Bangladesh Textile Manufacturers Association (BTMA); leading environmental NGOs including the Coalition of Environmental NGOs (CEN) and the Bangladesh Centre for Advanced Studies (BCAS); and leading educational institutions such as the Bangladesh University of Engineering and Technology (BUET).

Timeframe and Budget

It is proposed that the project be completed in 24 months and the budget for the work is approximately $700,000.

References

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