



Summary Assessment

Institutional Analysis for Wastewater, Agriculture and Sanitation in Rajshahi, Bangladesh

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Introduction

This summary is one in a series of summaries written by the Wastewater Agriculture and Sanitation for Poverty Alleviation in Asia (WASPA Asia) project. The WASPA Asia project aims to develop and test solutions for sanitation and wastewater management, to reduce the risks from wastewater use in agriculture. The approach involves the development of stakeholder coalitions at town and national level, called Learning Alliances, which will bring together the main stakeholders into a participatory process through which actions will be planned and implemented.

The WASPA Asia project is funded primarily under the EU Asia Pro Eco II Programme of the European Commission. It is being undertaken in Sri Lanka and Bangladesh by the International Water Management Institute (IWMI) and COSI in Sri Lanka; the International Water and Sanitation Centre in the Netherlands; NGO Forum for Drinking Water Supply and Sanitation in Bangladesh; and the Stockholm Environment Institute (SEI) in Sweden.

Conclusions and Recommendations

The main objective of the WASPA Asia project in Rajshahi is to work with relevant stakeholders to develop participatory action plans to address issues relating to wastewater agriculture. The stakeholders, including city residents, farmers, local government departments, water and waste management departments, agricultural support services, health institutions and industry associations that may have an interest in the

WASPA Project have been identified. An understanding of the responsibilities and activities of the relevant institutions in the fields of sanitation, wastewater management, agriculture and environment has been formulated to assist with an awareness of who should be involved and how the project team could work with these organizations in an effective manner. This understanding will also help develop the Learning Alliance (LA) and implement the Participatory Action Plans (PAPs).

The institutional context in Bangladesh is complicated with overlapping jurisdictions, ministries and responsibilities, but it can be concluded that Rajshahi City Corporation (RCC) is a critical stakeholder for the WASPA Project as it plays a significant role in managing the drainage system and solid wastes in the project area. Working closely with RCC on drainage and waste management issues will assist in meeting the project's goals. Ward Commissioners (WCs), within RCC, can also implement activities to improve solid waste collection and management.

Rajshahi Development Authority (RDA) is responsible for planning and designing the drainage infrastructure whilst RCC is responsible for the construction and maintenance of the drains. The two authorities operate under different government ministries - Local Government and Ministry of Housing and Public Works, respectively. There is presently little coordination between other institutions in relation to wastewater management, drainage management and pollution reduction. Therefore, working closely to bring organizations such as RCC and RDA together with industry-groups and hospitals may improve the wastewater management situation.



Main Findings

The institutional set-up in Rajshahi consists of an elected representation as well as administrative bodies. The administrative part includes, amongst others, RCC and RDA. High level officials of RCC and RDA are part of the Bangladesh Civil Service (BCS) and are appointed at the national level by the Government of Bangladesh. Lower level officials are appointed locally.

The key local government authorities that play a significant role in planning and development for the city of Rajshahi are the RCC and RDA. The RCC, WCs (and to a lesser extent RDA) play significant roles in the management of the city's wastes.

Rajshahi City Corporation

RCC, under the Ministry of Local Government, is headed by an elected Mayor. It is the key government institution in waste management, infrastructure and development activities in the city of Rajshahi. Its activities are pertinent to the WASPA Project and include the disposal of solid wastes; restoration of storm water and wastewater drains; the construction and reconstruction of roads and culverts; eradication of mosquitos; and the provision of health services to city residents.

These functions are stipulated in laws highlighting RCC's responsibilities regarding: sanitation; removal, collection and disposal of solid wastes; latrines and urinals; water supply; and drainage schemes. RCC provides manpower to clean roads and wastewater drains, and to collect solid waste. It is also responsible for implementing the Drainage Master Plan 1994 which aims to meet the physical needs of drainage and environmental sanitation.

WCs are the elected persons in the RCC system. The WCs are dependant on the finances and staff of the RCC to undertake development activities at the Ward level. It is therefore important that WCs maintain a good working relationship with the RCC. They are mandated to ensure that the basic rights of their people are met, including the provision of clean roads and drains, provision for a safe environment under existing laws and regulations, access to hygienic latrines and supportive health treatment facilities for all members of their ward.

Decisions for the city of Rajshahi, including the wards, are made by RCC and WCs are required to implement these decisions. Community members may approach WCs regarding their needs and the

WCs take the requirements of their wards to the RCC. RCC then makes decisions regarding where funds and labour are allocated. The WCs ultimately ensure that maintenance work is carried out according to plans approved by RCC.

Rajshahi Development Authority

The RDA functions under the Ministry of Housing and Public Works and is headed by an appointed government official. The Authority is in charge of preparing and executing plans and schemes for the development of Rajshahi City, including drainage plans. RDA is also responsible for preparing master plans in line with the general development plan indicating land use zoning and land reservations, water supply, sewerage and drainage, roads, community planning and housing. Within the Rajshahi Metropolitan Development Plan (RMDP), RDA is only responsible for implementing the Land Use Plans and other organizations are accountable to implement the remaining sections of the RMDP. Projects relating to storm water collection involving roadside drains will involve RDA in coordination with other organizations. RDA is also required to approve Building Plans and must ensure that septic tanks are included in building designs to prevent discharges into wastewater drains, however, RDA lacks the man power to enforce these regulations.

Department of Public Health Engineering

The Department of Public Health Engineering (DPHE) is not active in the RCC area in urban sanitation except in some low income community areas. Its remit is to work on water supply and sanitation outside the city area.

Paba Upazila

Paba Upazila (formerly Thana) is an Upazila of Rajshahi District, located just outside the RCC area and a small part is included in the WASPA Project site at Bashuar Beel. Paba Upazila deals with development programs of the Government of Bangladesh at Upazila level and works on administrative issues, natural disaster relief management, general health services, forestry and road construction. There are no major drainage systems within Paba Upazila of relevance to the WASPA Project area.

Agriculture

The main role of the Department of Agriculture Extension (DAE) is to provide needs based extension support services to all farmers. This role focuses on enabling farmers to optimise the use of

their resources as well as promoting sustainable agricultural and socio-economic development. The activities undertaken by DAE include research, communication and dissemination of new information to the farming community, as well as training and demonstration. DAE is currently not undertaking any research or activities relating to wastewater farming and agriculture, but their experience in disseminating information to farmers and general agricultural good practice is of relevance to the WASPA Project.

Department of Environment

The Department of Environment (DoE), under the Ministry of Environment and Forest, ensures sustainable development and management of the environment and provides advice, defines environmental laws and guidelines and issues Environmental Clearance Certificates to agencies that intend to set up an industry or undertake a development project. DoE establishes and enforces Environmental Quality Standards for water and wastewater discharges and may inspect sites for environmental improvement and pollution control. Their closest office is in Bogra, a two-hour drive from Rajshahi, therefore in practice, monitoring visits of the local industries in Rajshahi are not significant or frequently undertaken.

Industry Associations

The role of the Bangladesh Small and Cottage Industry Corporation (BSCIC) is to encourage the private sector to increase industrial production and investment, provide facilities for industries, and construct and develop industrial estates. BSCIC also provides services such as pre-investment counseling and post-investment extension services to all business owners and investors. BSCIC is in charge of all the drainage construction, water supply, culverts, and electricity supply as well as maintenance services within the industrial area but it is not responsible for managing wastewater or assisting the industries to manage wastewater. Once the wastewater leaves the factory it is the responsibility of RCC. However, by law some industries are required to have effluent treatment plants, which are regulated by DoE.

The National Association of Small and Cottage Industries in Bangladesh (NASCIB) is the central body for the industries, predominantly working in silk production. It provides guidelines to the industries on production and how to develop the industries; it solves problems faced by the

industries; and provides infrastructure. NASCIB has offices located in each district of Bangladesh and, in Rajshahi, works under the BSCIC service center umbrella.



Hospitals and Clinics

The Rajshahi Medical College Hospital (RMCH), which falls under the jurisdiction of the Ministry of Health, is currently responsible for managing all the medical wastes it produces. Solid wastes produced in the hospital are burnt in an incinerator within the hospital complex, however it does not presently manage its liquid wastes. Large quantities of wastewaters are produced from the Surgical Department and are predominantly discharged into the septic tank onsite. There is no proposal to improve the waste management practices and there are presently no government policies governing the waste management of hospital wastes.

The Clinics Association has a total of 57 members from private clinics within the Rajshahi City area. Management of hospital wastes is not covered within the *Private Clinic and Private Practice Ordinance, 1982* and, as clinics do not possess incinerator facilities to burn their own clinical wastes, reliance is on the RCC to undertake monthly management of clinical solid wastes. Solid wastes are separated at source but when collected by RCC they are mixed and incinerated. The liquid wastes from clinics are disposed of into septic tanks and other wastewaters are disposed of into the wastewater drains without infrastructure for treatment.

Rajshahi University

Rajshahi University undertakes research in aquaculture including wastewater aquaculture and water resources but has not produced any research

papers on wastewater management or its use in agriculture.

Civil Society

The Bangladesh Environmental Lawyers Association (BELA) is a non-governmental organization of lawyers with the objective to promote environmental justice. The organization has adopted various means to create awareness and activate environmental legislation, emphasizing wider advocacy in law making and policy planning. BELA concentrates its effort mainly on public interest litigation and research and has instituted cases related to a wide range of issues such as river pollution, labor welfare, encroachment and destruction of important wetlands and relocation of industry.

Implications for WASPA

The Institutional Analysis has some important implications for WASPA as it identifies the key institutions that have a significant role to play in the LA and implementation of the PAPs.

The most important implications are:

- The principal institution mandated to manage wastewater and drainage related issues is the RCC.
- RDA has an important role in urban planning and should therefore be part of the PAP development process.
- The project needs to work with the RCC and the WCs on effective solid waste management support.
- There is currently little coordination between various organizations with similar or overlapping foci and mandates. For example DoE and BSCIC do not collaborate extensively. The WASPA Asia Project needs to build synergies where relevant and possible.
- There is a lack of presence from the DoE office to sufficiently monitor industrial discharges and pollution.

- Collaboration with DAE will be beneficial to effectively communicate with and train farmers on more effective use of wastewater to improve productivity and reduce health risks.

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