

Chapter-16

Ministry of Water Resources

1.0 Introduction

- 1.1 Bangladesh is an agricultural country. A sustainable management of water resources is essential for agricultural development. The growing population is enforcing the demand of water to rise in domestic, agricultural, industrial and development activities. Reliance on underground water is increasing due to the climate change and decline of the flow of rivers. Ministry of water resources is responsible to ensure the needs of the people and the sustainable development of water through a balanced and integrated water resources management. Ministry of Water Resources through its departments and agencies plays central role in various welfare activities. Along with these to trustee institutions are conducting National and International studies in water, environment and climate issues.
- 1.2 To achieve the purpose and objectives of Vision-2021, Delta plan-2100 and 7th Five year Plan of the present Government, this ministry is working sincerely and attentively as instructed by the honorable Prime Minister. The success of Bangladesh has been acclaimed worldwide for achieving the Millennium Development Goals. Subsequently, the goals of sustainable development within 2030 declared by the United Nation, the government is committed to moderate, efficient and sustainable use & management of water resources as well as to ensure adequate and safe water for all by keeping in mind the demand of future generation.
- 1.3 Ministry of Water Resources is working to ensure more participation of women in productivity growth and labour market & income generating activities. In this ministry, employment opportunities is being created as a result of more participation of women in infrastructure development, maintenance, ground work, water management in the implemented projects. This will increase their income and social dignity as well.

2.0 Major Functions of the Ministry

- ❖ Formulate national policy for irrigation, flood control, mitigation of water logging, improvement of drainage system, protection from river erosion and prevention of salinity and desertification and issues relating to technical assistance.
- ❖ Manage all issues relating to flood forecasting and warning, management of flood control and other activities related to causes of flood and appraisal of the damages owing to flood.

- ❖ Conduct basic and applied research on river basin and flood control infrastructures and carry out hydrological survey and data collection.
- ❖ International and regional co-operation in the areas of flood control and development of Water Resources and works related to trans-boundary rivers by Joint River Commission.
- ❖ Excavate and maintain canals and construct and maintain water control infrastructures under canal excavation programs.
- ❖ Issues related to land conservation and reclamation, drainage, water logging and integrated development of Haor and Wetlands.
- ❖ Issues related to construction of water reservoirs, embankments and barrages.
- ❖ Conduct dredging to enhance water reserve capacity of the rivers and protection from erosion.

3.0 Strategic objectives of the Ministry of Water Resources for Women's Advancement and Rights

- 3.1 Ensure balanced, integrated and sustainable management of water resources:** Women will be engaged in the irrigation activities of Water Development Board which will create employment opportunities. "Irrigation Management Improvement Project (IMIP)" for Muhuri Irrigation Project has been taken to increase overall crop production through irrigation facilities around 17000 hectares of land. An effective revenue collection system and procedures will be set up through Pre-Paid Meter under this project. 5% of employment generated from civil works and 20% of employment related to Smartcard recharge vending will be reserved for women. As a result the financial and social status of women will be increased.
- 3.2 Flood control and township protection:** Enhancing navigability of rivers, reducing rate of river erosion, ensuring water supply in dry season, moreover reduction the country's poverty, the work of 150 km river dredging, 180 km excavation and re-excavation of irrigation canals, construction/repair of 515 km irrigation structures, construction of 1 no. barrage/rubber dam will be completed. Flood control, prevention of saline water intrusion, removing of water logging construction/repair of 75.21 km flood control and coastal embankment's, construction/repair of 290 nos. flood control & drainage structures and excavation/re-excavation of 650 km. drainage canals will be completed. As a result, the loss of crops and property of the poor people will be reduced. By implementation of these activities the employment opportunities will be created for the poor. To prevent important installations and border-rivers from erosion, 99 km of river bank protection work will be done by

involvement of the poor people which will create employment opportunities and protect their properties, that will eventually contribute to poverty reduction

- 3.3 Development of Haor and wetlands and water management of coastal region:** 30,770 hectares of land has been developed under CDSP-4 Project. The socio-economic condition of the poorest community in the coastal areas will be improved through the implementation of the project. 30683 hectares of land will be distributed to the landless peasants under this project. By construction of Musapur Closure near the mouth of the Choto Feni river at Companiganj in Noakhali at a cost of Tk. 170.00 crore, a large areas in c/s of the closure has become free from flood as well as 300 hectares of land has been restored which is helpful to increase the area of main land of the country. The fair distribution of reclaimed land to the destitute women will ensure their Social security. Houses to be constructed in the char and wetlands will also be distributed to destitute women. The involvement of women in river bank protection work will also increase. It will have a positive impact on the advancement of women. Participation of rural marginal farmers, among others, in the Water Resources Management Groups and in the management of other related general resources will be ensured. Involvement of the management groups in the planning and management of the activities of Water management development project and transfer of management responsibilities to the groups after the end of one year of the implementation will be ensured. Responsibility for the collection of service charges of Teesta Irrigation project will be given to rural marginal farmers along with WMO. They will also be given training in water management. Consequently, employment opportunities will be created for income generating activities. The implementation of earth-work related projects of BWDB Landless Contracting Society (LCS) policy in will provide opportunities for employment for the rural poor. Women will be given training and their participation in the groups for water resource management will be ensured. As per guidelines of water management directory women will constitute 33% of total members in the water management organizations. This will contribute to the economic solvency and empowerment of women as well. 30% of the earth-work under of BWDB will be implemented by women organized under LCS which will induce economic solvency of the women. With the assistance of Development Partner JICA “Haor Flood Management and Livelihood Improvement Project (BWDB Part)” has been taken at a cost of 993.37. By implementation of these projects, transportation facility of crops in haor areas and the internal navigability of rivers & canals will be increased. As a result, employment and income opportunities of the localities will be created. With the help of the government of Netherlands the Blue Gold Program is in progress.

The aim of the Blue Gold program is to improve the water management of 22 coastal polders in 1,19,124 hectare areas of Patuakhali, Barguna, Khulna and Satkhira districts. The Blue Gold Program is helping to structure water management teams (WMG) and water management organizations (WMA) and thus is playing a significant role in water management. With the help of this programme, women's income has increased due to improved marketing process and productivity of crops, fisheries, poultry and livestock. A large part of the Soil Work of Blue Gold is being performed through the Landless Contracting Society (L.C.S). Of which 36.9% of L.C.S workers are women, which is about 8545 no of poor women. It has enabled their opportunity to increase their income. For example, many women in Chinuduri village of Polder 55/2 are currently earning Tk. 5000/- to 10000/-, which in turn is improving their living standards.

- 3.4 **River basin management:** Women and children are the worst victims of floods, storms, tidal surge as well as any natural or man-made disasters. To strengthen Flood Forecasting and Warning System a project titled “Strengthening Hydrological Information Services and Early Warning System” has been taken. If the project is implemented, the intensity of flood damages will be reduced. It is noted that, by modernization of the flood forecasting and warning system it has been possible to forecast flash floods in advance of 5 days in 54 important points and 10 days in 30 points in special cases from 2012-13 fiscal years. As a result, the mortality rate of women and infant has decreased.

- 3.5 If the availability of water is increased by water basin management, poor farmers will be able to increase their productivity. As a result, their income will increase and it will have a direct impact on poverty alleviation. But there will be no direct impact on women development.

4.0 Roles and Responsibilities of the Ministry of Women's Advancement and Rights

- 4.1 The main objective of the Ministry of Water Resources is to fulfill the people's requirements of water and ensure sustainable development through integrated water management. The National water Resources Policy 1999 was adopted for proper implementation and direction of different activities related to water sector. Until now different development activities were carried out in light of this policy. Considering the wider scope of water resource management and its involvement with a number of Ministries and Departments, an integrated act has been formulated by involving all stakeholders. 'Bangladesh Water Act' 2013 has ensured development, management, exploration, distribution, use, protection and conservation of water resources. Proper implementation of the act will prevent

misuse and wastage of water resources as well as ensure its proper use. Women as well as the whole nation will certainly get its benefit.

- 4.2 For sustainable development of the socio-economic condition of the people living in the 19 southern coastal districts, a comprehensive 'Coastal Zone Policy, 2005' has been formulated. The objective of this policy is alleviation of poverty, sustainable development of life and livelihood, integrated coastal development and involvement of the coastal people in the mainstream of development of the country. Under this policy people living in the coastal area will be provided education, medical assistance, safe dwelling place and safe drinking water and sanitation facilities. In addition, it will contribute to employment generation, proper use of land, water, fisheries, animal husbandry, and forestation for the people living in coastal area. The policy also targets ensuring gender equality in distribution of assets and employment opportunities in the coastal area. Thus the policy will directly impact on Women's development of 19 coastal districts.
- 4.3 To alleviate poverty of destitute women, their participation has been ensured in the various infrastructures maintenance related activities of water sector in accordance with "Participatory Water Management Regulation 2014" prepared under Bangladesh Water Development Board Act 2000. According to this rule, every water management group will form cluster groups including landless men and women of the project area for infrastructure development or maintenance related activities of which 30% will be women. Moreover, to ensure the proper maintenance of earthwork in the various projects, there is a provision to include 2 (two) female members out of 6 (six) members in the executive committee of water management groups.

5.0 Priority Spending Areas and Benefits for Women's Advancement

Serial No.	Priority spending Area/Program	Impact on women's advancement (Direct and Indirect)
1	2	3
1.	Excavation/Re- Excavation of Rivers and canals, Construction of Structures and their maintenance works	<ul style="list-style-type: none"> ❖ Rivers and canals are the primary source of water for irrigation. These rivers and canals are gradually being silted up and as such, excavation /re-excavation of rivers and canals has become imperative. ❖ Excavation/Re-excavation of rivers/canals, construction of structures and their maintenance will protect agriculture and properties, create employment opportunities for the poor, a large number of whom are women. This will increase women's social security and empowerment. ❖ Employment opportunities for rural women will be created in

Serial No.	Priority spending Area/Program	Impact on women's advancement (Direct and Indirect)
1	2	3
		different irrigation activities to be implemented during next three years.
2.	Repair/ maintenance and development of existing coastal embankment / structures and construction of new embankment/structures and forestation works	❖ Repair/maintenance, rehabilitation and development of existing embankments/structures, construction of new embankments & structures, and afforestation programs in the coastal area have been included as priority that will ensure protection and proper use of resources will create employment opportunities for women and increase their social security.
3.	Construction and maintenance of flood control embankment and erosion protection works to protect economically important places, lives and properties of the people and crops of the agricultural land.	❖ Valuable public and private properties, permanent buildings, industries and factories, business enterprises etc. are being destroyed due to riverbank erosion leading to huge economic loss. ❖ Poor people will engage in the construction of 99 km river bank protection works and will protect properties and alleviate poverty. River bank protection works will create employment opportunities for women.
4.	Conducting surveys to prepare water resource planning	❖ Surveys and mapping of water resource sector through the proper planning, implementation and management will create a qualitative change in overall water resource management. Women will be benefited from it.
5.	Reclaiming the fair share of the water resources of border and common rivers.	❖ Establishment of the rights to fair share of water on border and common rivers will promote irrigation, increase agriculture harvest and production of fish. This will make positive impact on women's development.

6.0 Women's Share in Ministry's Total Expenditure

(Taka in Crore)

Description	Budget 2018-19			Revised 2017-18			Budget 2017-18		
	Budget	Women Share		Revised	Women Share		Budget	Women Share	
		Women	percent		Women	percent		Women	percent
Total Budget	464574	136938	29.48	371495	86169	23.2	400266	112019	27.99
Ministry Budget	7093	3377	47.62	6122	835	13.64	5926	2729	46.05
Development	5606	3171	56.56	4751	570	11.99	4675	2444	52.28
Non-Development	1487	206	13.88	1371	266	19.37	1252	285	22.76

Source: RCGP database

7.0 Success in Promoting Women's Advancement

- ❖ Activities of Bangladesh Water Development Board (BWDB) has helped prevent floods, protect towns from river erosion, prevent loss of life and property from cyclones, prevent salinity intrusion to coastal land, reclaimed land from sea etc. Women's participation in the implementation of these project has been ensured.
- ❖ Under C.D.S.P.-4 project, cluster villages prepared by partner agencies are being distributed among destitute women. Socio economic conditions of the poorest people in the coastal areas will be improved through the implementation of this project. 30683 hectares of land will be distributed to the landless peasants under this project. The total settlement will be 28000 families (155000 people). Women's rehabilitation would be possible through this program.
- ❖ It has been possible to forecast flash floods in advance by modernization of flood forecasting and warning system. So the lives of the people are protected from floods in the coastal areas. As a result, the mortality rate of women and infant has decreased.

8.0 Recommendations for Future Activities

- ❖ Generating employment opportunities for women in several activities such as excavation/re-excavation of rivers/canals, repair/maintenance, rehabilitation and development of existing embankments/structures, construction of new embankments & structures;
- ❖ To determine women's role in financial matters;
- ❖ Special resettlement arrangements should be taken into consideration by preparing a separate list of women and children affected by river erosion and natural disasters;
- ❖ There are a good number initiatives to improve/build new infrastructure of Bangladesh Water Development Board throughout the country. Greater participation of women should be ensured for the construction and maintenance of these infrastructure;
- ❖ Water Management Rules entail the provision to form groups for water Management of which 33% will be women. There need to take proper steps to execute the rules;
- ❖ The Ministry can undertake initiative to retain water in the project areas and promote fish culture through women's participation;
- ❖ Massive afforestation activities can be taken on the large infrastructures of Bangladesh Water Development Board with participation of local women;

- ❖ Ensure Women participation during planning and policy making of water related projects
- ❖ Arrange seminars, meeting, workshop etc. on water resources management to develop awareness among women with a view to reduce the misuse of water as per the national water act.
- ❖ Identify the role of women in case of rehabilitation due to climate change.

9.0 Progress on Recommended Activities in the Previous Year

Serial no.	Activities recommended for Previous years	Achievements
1	2	3
1.	<ul style="list-style-type: none"> ❖ Massive afforestation activities can be taken on the large infrastructures of Bangladesh Water Development Board with participation of local women; ❖ The Ministry can undertake initiative to retain water in the project and promote fish culture through women's participation; 	Under the Char Development and Settlement Project Phase:1-4, implemented by BWDB land were allocated to women to rehabilitate them for further empowerment. Various types of farming including forestry are being done using these lands.
2.	<ul style="list-style-type: none"> ❖ To ensure the participation of women in planning, policies and implementation of water resources projects; ❖ To undertake necessary initiatives to incorporate the opinion of women for the implementation of water resources projects; ❖ To take necessary steps by creating employment opportunities for women in water resources activities 	In the matter of water resources management, 2684 Water Management Associations (WMA) were formed where 80829 women participated.
3.	Water Management Rules entail the provision to form groups for water Management of which 33% will be women. There need to take proper steps to execute the rules;	In accordance with policy related to water resources management, 33% female members are accommodated in the groups formed for water management.

- 10.0 Initiatives are taken by the ministry to include specific allocations for women in the upcoming development projects (An office order was issued on 24th May 2018 in this regard).