

## Chapter-27

### Ministry of Science and Technology

#### 1.0 Introduction

- 1.1 The Ministry of Science & Technology (MoST), as a positive driving force of the society, is working for achieving excellence in science and technology, for the betterment of balanced socio-economic development of science & technology as a part of our national culture. By using science & local technology the ministry is striving relentlessly to take forward Bangladesh. As per the vision of government by 2021, ministry of science & technology is working relentlessly with sustainable technology and also working for achieving the target of becoming middle income country to augment participation of women in science & technology, to ensure social security of the women, to conduct research on science & technology, to innovate technology, development, publicity-expansion and successful application to achieve socio-economic development of the country.
- 1.2 The government of the country want to apply science and technology in the interest of the overall development of women. In line with the government's plan, the Ministry of Science and Technology within the framework of its strategic objectives and main functions has included the thinking of women development; formulating science and technology related policy and acts and implementation of the development projects.
- 1.3 One of the main objectives of national Science & Technology policy 2011 is to promote for the empowerment of the women in Science & Technology sector and ensure their full and equal participation.

#### 2.0 Main Functions of the Ministry of Science and Technology

- ❖ To review the existing policies of science and technology in line with the national goals and strategies and formulate new policies;
- ❖ Co-ordinate with different ministries for implementation of National Science and Technology Policy;
- ❖ Implementation of the recommendations of National Council for Science and Technology (NCST);
- ❖ Provide overall assistance to agencies/institutions in the science and technology sector; undertaking research and development activities;
- ❖ Creating liaisons with different international organizations in the science and technology sector, implementing agreements and cooperation programs;

- ❖ Taking proper initiatives to incorporate Bangladesh in the ongoing development activities related science and technology in the international areas;
- ❖ Activities relating to nuclear safety and control of radioactivity as well as establishment of nuclear power plant and peaceful use of nuclear power;
- ❖ promote, Publish, extend and popularize science & technology related initiatives and organizing National Science and Technology Week in order to enhance the awareness to students;
- ❖ Research activities on marine science.

### **3.0 Strategic objectives of the Ministry and their Relevance with Women's Advancement and Rights**

**3.1 Providing assistance for research work related to science & Technology:** No direct impact. However, due to the use of improved stove, more energy is saved and the smoke is not spread out, this technology is useful for the protection of rural women. Women have to spend plenty of time and labor to collect fuel, using improved stoves and biogas technology both time and labor of women are being saved.

**3.2 Popularizing of Science & Technology:** By arranging science fair digital film show and different types of exhibition are encouraging towards women for their mental involvement in Science.

**3.3 Peaceful use of nuclear energy:** Have indirect impact for women. It is possible to provide some medical diagnosis and treatment to women, especially under the nuclear facilities system. This will increase the opportunities for getting government services for the women.

**3.4 Invention of environment- friendly and sustainable technology for socio-economic development:** Research on products and goods that women use e.g., household products, appliances, drinking water etc. can contribute to women's advancement. The household use of sustainable technologies will decrease women's working hours. Extension of scientific knowledge to grass-root level will increase women's capacity, social dignity and empowerment.

**3.5 Development of Scientific and technological infrastructure:** The involvement of women in infrastructure development activities will generate employment for them.

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

**4.1 National Science and Technology Policy 2011:** According to the article 5.2.4 of the National Science and Technology Policy 2011 An action plan has been formulated for

the implementation of this policy to special incentives to women's professions in research and development (R&D).

- 4.2 **Fellowship, women's position in higher education and research:** National Science and Technology (NST) fellowship is being awarded to the students and researchers engaged in the different fields of science and technological research. Under NICT (National Information and Communication Technology) fellowship programmes 1343 students during FY 2014-15, 1438 students during FY 2015-16 and 1702 students during FY 2016-17 have been provided grants for development of science and technology among them 669 were women in FY 2014-15, 732 were women in FY 2015-16 and 863 were women in FY 2016-17. Apart from this, in the fiscal year 2016-17, assistance has been provided to 395 research related projects, in which 43 researchers are women.
- 4.3 **Provision of diagnostic and medical services for complicated diseases of women by using radioactive isotopes:** Ultra-sonography was first introduced by Bangladesh Nuclear Energy Commission. Patients are getting medical treatment through ultra-sonogram and radio isotope services from 15 nuclear medicine and ultrasound centres. Of the patients treated through ultra-sonogram service, about 60 percent were women and in case of radioisotope services it was about 85 percent. Radioactive isotopes are produced at Nuclear Science and Technology Institute. Various complicated diseases of women are being diagnosed and treated by using valuable radio isotope and radio pharmaceuticals.
- 4.4 **Encouraging school and college students and members of science club to get involved in innovative activities:** There are 7 science oriented galleries in the National Museum of Science & Technology in order to popularize science. The visitors of those galleries 45 percent are female. The females are being interested towards science education by visiting galleries of the Science Museum. There is a modern Library in the National Museum of Science & Technology. The number of female readers of this library is about 40 percent. Moreover, the Museum arranges National Science and Technology Week, Science fair, Seminars & Symposia on science. About 50percent of the participants of those occasions are female.
- 4.5 **Creating inspiration for learning space science through amusement:** Bangbandhu Sheikh Mujibur Rahman Novotheatre has been established as a non-formal Science Education Centre with the aim to encourage citizens particularly students to learn space science through entertainment and to inculcate a positive and accurate idea about outer space in their mind. Digital Planet Show and is shown at the planetarium of Novotheatre. A 30 minute digital film has been made on the greatest

bangalee of all time Father of the Nation Bangabandhu Sheikh Mujibur Rahman; visitors will be able to learn about the contribution of the great leader on Liberation War of Bangladesh, history and culture of the country.

Besides, 14 scientific and 16 digital exhibits, 5D movie theatre, capsule ride simulator, smart game and smart step floor, and 5D-Edutainment simulator have been established to attract visitors. Moreover, Nuclear Industry information Centre (NIIC) with 3-D projection has been established to provide proper Information to people about nuclear power in line with establishment of Ruppur Nuclear power plant in the country. Most of the visitors are women who came to the Novotheatre.

### 5.0 Priority Spending Areas and Benefits for Women's Advancement

Serial No.	Priority Spending Areas/Programmes	Impact on Women Development (direct/indirect)
1	2	3
1.	Ensure safe and peaceful use of nuclear energy	Treatment of complicated diseases of women is now possible through the use of radioactive isotopes under the nuclear medical treatment system. The opportunity of getting government services for women is increasing. The generation of power from atomic sources and its use for fertilizer production and uninterrupted irrigation and other related activities will increase agricultural and non-agricultural production, from which women are being benefitted.
2.	Invention of environment-friendly and sustainable technology for socio-economic development	The use of improved technology will contribute to reduce the daily work hours of women. Researches on the supply of safe water for household use and drinking will contribute to women's development. By using of sustainable technology in home work, the work hours will be reduced. By disseminating the knowledge of science to grassroots level, women's participation and social status will be increased and women will be empowered.
3.	Development of infrastructure for expansion of Science & Technology	Direct employment will be created by involving women in infrastructural development activities.

## 6.0 Women's Share in Ministry's Total Expenditure

(Taka in Crore)

Description	Budget 2017-18			Revised 2016-17			Budget 2016-17		
	Budget	Women Share Women percent		Revised	Women Share Women percent		Budget	Women Share Women percent	
Total Budget	400266	112019	27.99	317174	86586	27.3	340605	92781	27.24
Ministry Budget	11038	4198	38.03	4214	1471	34.9	2070	110	5.3
Development	10602	4130	38.95	3817	1407	36.86	1697	43	2.55
Non-Development	436	68	15.67	397	64	16.03	372	66	17.85

Source: RCGP database

## 7.0 Success in Promoting Women's Advancement

- ❖ Bangabandhu Fellowship on science and ICT have been introduced with a view to creating specialized and qualified scientist, technicians, researchers and academicians in the field of science and technology through M.S, Ph.D. and Post-doctoral research activities. Under this program, 221 scholars have been given foreign fellowship to pursue MS, Ph.D. and post-doctoral course. Of the total fellows, 73 are women 4.
- ❖ It is mentionable that 17 development projects are currently being implemented under the ministry. Women are playing important role in the implementation of the projects under the ministry. Moreover, all female employees are playing an important role in the implementation and administration of the development project, being posted in the ministry and its organization level or being a member of different committee in this regards. The increasing number of women participation will be continued in the future.

## 8.0 Implementation progress of the past year recommendations about future commitments

Serial No	Recommendation of Last Year	Implementation Progress
1.	Gender issues should be taken into consideration while importing and implementing new technologies.	Gender issues are being considered importantly with regard to innovation, import and its usage
2.	If any invented technology eventually appears to be harmful to women's interest that should be eliminated through further research.	Necessary initiatives are underway.
3.	Formulate new act and rectify old one to align it with the women-friendly technological development	Necessary acts are in the process of consideration in the field of technology, enacting and reforming laws in order to achieve the objective of women interest.

Serial No	Recommendation of Last Year	Implementation Progress
4.	Provision can be made to include women members in different project committees to increase their participation in the implementation and administration of different projects implemented by the ministry of science and technology.	Women members are being included in various committees at different stages of project implementation and management
5.	The ministry should take specific steps to provide special incentives to women in the profession of research and development (R&D) activities as enumerated in National Science and technology policy, 2011 and ensure women's participation as well as empower them in every sphere of science and technology related education and research.	Incentives for women are being provided in case of scientific research and development, and education of science. Financial incentive to the students is being given through science and technology programs along with national fellowship implemented by the Ministry of Science and Technology, out of which a significant part are women.

## 9.0 Recommendations for Future Activities

- ❖ Providing medical services to women with critical diseases through radio isotope.
- ❖ Creating the interest of women in science education through entertainment.