**Grant No. 42**

**145 - Ministry of Environment, Forest and Climate Change**

**Medium Term Expenditure**

(Taka in Thousands)

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Budget**  **2020-21** | **Projection** | |
| **2021-22** | **2022-23** |
| Operating Expenditure |  |  |  |
| Development Expenditure |  |  |  |
| **Total** |  |  |  |
|  | | | |
| Recurrent |  |  |  |
| Capital |  |  |  |
| Financial Asset |  |  |  |
| Liability |  |  |  |
| **Total** |  |  |  |

**1. 0 Mission Statement and Major Functions**

**1.1 Mission Statement**

Ensuring sustainable environment for the present and future generation of the country through conservation of ecosystem and environment, control of environment pollution, adaptation measures for the impact of climate change, improvement of forest resources and sustainable management of ocean resources.

**1.2 Major Functions**

* + 1. Conservation and improvement of the environment, control of environmental pollution (Air, Soil, Water etc.);
    2. Plantation of trees, establishing forests in newly accreted chars and implementation of social forestry;
    3. Conducting research and training relating to environmental, forestry and climate changes issues;
    4. Conservation, expansion and development of forest resources, and preparation of forest inventory;
    5. Conservation of wild life and bio-diversity, expansion of eco-tourism and protected areas;
    6. Maintenance of the botanical gardens and conservation of gene pool and conducting surveys to identify the plant species;
    7. Extraction of forest resources, establishment of forest resource-based industries and marketing of the products of those industries;
    8. Adaptation and implementation of appropriate clauses contained in different regional and international conventions, agreements, and protocols relating to environment, forestry, climate changes and wild life.

**2.0 Medium Term Strategic Objectives and Activities**

| **Medium-Term Strategic Objectives** | **Activities** | **Implementing Departments/Agencies** |
| --- | --- | --- |
| **1** | **2** | **3** |
| 1. Mitigating the adverse effects of climate change | * Implementation of Clean Development Mechanism program (CDM) in 6 districts to reduce carbon emission from organic waste. * Undertake awareness raising activities to enhance adaptation and mitigation capacity of the people to face the challenges of climate change and conduct researches/studies in these areas. * Increase the use of improved technologies for brick kilns to reduce carbon emission | * Department of Environment |
| * Creating green belt to protect marine cyclone through conservation of established coastal forest. | * Department of Forest |
| * Improve living standard of people affected by climate change * Updating of Bangladesh Climate Change Strategy and Action Plan (BCCSAP) * Preparation and finalization of National Adaptation Plan | * Secretariat |
| 1. Conservation and sustainable management of forest resources | * Create and manage participatory block gardens and strip gardens and restoration of forest through Assisted Natural Regeneration / Enrichment plantation in degraded forest * Sale and distribution of seedling to people for forestation in private lands. * Reducing dependency of people on forest resources, expansion of social forestry and share of benefits. * Strengthen forest management through demarcation of government forest land and re-establishment of encroached forest land through plantation. | * Department of Forest |
| * Create laboratory gardens of different species of forest trees. * Production of improved quality bamboo and medicinal plants by tissue culture. * Organize training/workshops/ seminars to transfer invented technologies, and conduct field research. | * Bangladesh Forest Research Institute |
| 1. Control of Pollution | * Conduct mobile courts against production and use of harmful polythene. * Reduce the emission of the motor vehicle, reduce/control noise pollution, reduce air pollution, and to prevent industrial pollution by ensuring the use of modern technology and though enforcement activities in necessary case. | * Department of Environment |
| 1. Conservation of ecology and bio-diversity | * Increase people's awareness in conservation of bio-diversity | * Department of Environment |
| * Implement co-management model in protected forest areas trough people participation and expansion of protected area. * Conducting bio-diversity survey in protected areas for conservation of endangered species on the basis of survey. * Ensuring movement, breeding security and necessary rehabilitation of wildlife and awareness building among the local people in this regard. | * Department of Forest |
| * Implement programs on botanical survey, plant identification and preservation of plant specimen, research on plant taxonomy and floristic publication | * Bangladesh National Herbarium |

**3.0 Poverty, Gender and Climate Change Reporting**

**3.1 Impact of Medium Term Strategic Objectives on Poverty Reduction, Women's Advancement and Climate Change**

**3.1.1 Mitigating the adverse effects from climate change**

**Impact on Poverty Reduction:** Due to adoption of various adaptation actions to combat adverse effects of climate change, there will be increased tolerance against natural disasters, which will indirectly help in reducing the risk of poverty, and the adoption of various mitigation activities will lead to the introduction of new green technologies, which will create employment opportunities along with contributing to human resources development. On the other hand, the training of technicians on the reduction of emissions from ozone depleting substances is contributing their employment. People's participation in the activities of costal garden creation will create scope for employment and increase income. Ensuring 50% of women's participation in participatory plantation activities will increase their income. This will help in the basis requirements of food security, safe housing, employment and health.

**Impact on women’s advancement:** Due to climate change, there is the possibility of adverse effects on water and agriculture. In this case women suffer most. Adaptation and mitigation activities play an important role in reducing potential risks and risks for women as well as in the areas of good health. Women have been included in the training on the reduction of the emission of ozone depleted gases in refrigeration sector. People's participation in the activities of costal garden creation will create scope for employment and increase income. Ensuring 50% of women's participation in participatory plantation activities will increase their income. This will help in the basis requirements of food security, safe housing, employment and health

**Impact on Climate Change Adaptation and Mitigation:** Implementation of climate change related risk reducing activities regarding adaptation and mitigation will help in combating adverse effects of climate change.

**3.1.2 Conservation and sustainable management of forest resources**

**Impact on Poverty Reduction:** As a result of Involving the local people in forest conservation, sustainable management of forest and forest expansion through participatory block, strip and fruit tree plantation the beneficiaries will receive intermediate crops and benefits. These benefits will have a direct impact on the increase of income of the poor. Training to people involved in social forestry will increase their role in the production of forest resources, along with increasing social awareness.

**Impact on Women's Advancement:** Women will get opportunities for self-employment and income generating activities as they will be involved in participatory plantation and training, distribution of different fruits, wood and medicinal saplings for homestead gardening. This will contribute to increase to social status and empowerment of women.

**Impact on Climate Change Adaptation and Mitigation:** The engagement of local people in forest conservation, sustainable forest management and forest expansion as beneficiaries of the forest and participatory block plantation, strip plantation and fruit gardening will help tackle the negative impacts of climate change and contribute to adaptation.

**3.1.3 Control of Pollution**

**Impact on Poverty Reduction:** Control of environmental pollution are reducing the adverse effects on public health, and therefore, health expenditure are decreasing. Thus control of environment pollution are indirectly impacting on poverty reduction. Reduction of waste production are indirectly impacting on poverty reduction and treating waste as resources by producing organic fertilizers and recycled goods has financial benefits. Waste management programs is helping to improve public health and creating employment opportunities for the poor by engaging them in waste management activities.

**Impact on Women’s Advancement:** Controlling pollution plays a significant role in the protection of women's health, especially reproductive health, as half of the country's population is female. Indoor air pollution is being reduced by installation of Improved Cook Stoves, As a result, women and child health is being protected from indoor air pollution. Moreover, women and mass people are being benefited as water and air pollution is being reduced by using effluent treatment plant and air treatment plant in industry and factory.

**Impact on Climate Change Adaptation and Mitigation:** Reduction in air pollution is decreasing the emission of carbon dioxide along with green house gases, which will prevent the adverse effect of climate change.

**3.1.4 Conservation of ecology and biodiversity**

**Impact on Poverty Reduction:** The programs of co-management, in conservation of bio-diversity and expansion of protected area are paving opportunities of involving for remote people .Development ecotourism in protect area has increased more economic activities .It will create the opportunity of increasing income of the poor and play an important role in reducing poverty.

**Impact on Women’s Advancement:** Ensuring the opportunity of 50% participation for the poor and destitute women in participatory plantation and biodiversity conservation and 30% representation in the committees for local level planning will create opportunities of income generation of women. This will indirectly increase their social dignity.

**Impact on Climate Change Adaptation and Mitigation:** Besides human life, climate change affects biodiversity, particularly through conservation of plants, the negative impacts of climate change can be tackled. Moreover, through co-management in the established and expanded reserved areas, risks for those dependent on forests will be reduced and climate resilient livelihoods will be strengthened.

**3.2 Poverty Reduction, Women’s Advancement and Climate Change Related Spending**

(Taka in Thousand)

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Budget**  **2020-21** | **Projection** | |
| **2021-22** | **2022-23** |
| Poverty Reduction |  |  |  |
| Gender |  |  |  |
| Climate Change |  |  |  |

**4.1 Priority Spending Areas/Programmes**

| **Priority Spending Areas/Programmes** | **Related Strategic Objectives** |
| --- | --- |
| **1. Tackling the risks arising from climate change**  Bangladesh is one of the countries in the world most affected by climate change. In light of the need to cope with the adverse effects, building people’s awareness and adaptation to the changing situation has been given the top priority. | * Mitigating the adverse effects of climate change |
| **2. Conservation and sustainable management of forest resources**  Considering the importance of the prevention of soil erosion and degeneration of forest land, increasing the sustainability of newly created Chars, improvement of the quality of soil, protection of properties from the adverse effects of climate change, improvement of biodiversity of plants and animals, reduction of poverty through increasing the area of forest land, restoration of environmental balance by reducing carbon emission under REED+ Program, Eco-system services, recovery of forest and carbon sequestration have been given priority. | * Conservation and sustainable management of forest resources |
| 1. **Control of pollution**   Considering the importance of environmental protection through control of water and air pollution and management of all kinds of hazardous waste including solid waste management under the Environment Protection Act 1995 (Amendment 2010), this area has been given the third priority | * Control of pollution |
| **4. Conservation of ecology and bio-diversity**  Growing population, climate change and demands for livelihood are taking a heavy toll on biodiversity. Biodiversity is needed for environmental protection. This sector is given priority considering the importance of the expansion and development of protected forest areas, protection of near extinct plants and animals, protection of existing flora and fauna, development of ecological systems, undertaking of surveys on forest and wild animals, eco-tourism, restoration of balance in the Food Chain, reducing the pressures on exploitation of endangered plants and animals by creating alternative means of earning a livelihood. | * Conservation of ecology and bio-diversity |

**4.2 Medium Term Expenditure Estimates and Projection (2020-21 to 2022-23)**

**4.2.1 Expenditure by Department/Agencies/Institutional Units**

(Taka in Thousands)

| **Description** | **Budget** | **Revised** | **Budget**  **2020-21** | **Projection** | |
| --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2021-22** | **2022-23** |
|  |  |  |  |  |  |

**4.2.2 Expenditure by Economic Group Wise**

(Taka in Thousands)

| **Economic**  **Group** | **Description** | **Budget** | **Revised** | **Budget**  **2020-21** | **Projection** | |
| --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2021-22** | **2022-23** |
|  |  |  |  |  |  |  |

**5.0 Key Performance Indicator (KPIs)**

| **Indicator** | **Related Strategic Objectives** | **Unit** | **Revised**  **Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| 1. Expansion of Forest Coverage | 2 | % | 13.30 |  | 13.35 |  | 13.40 | 13.42 |  |
| 1. Coverage of the use of advanced technology in Brick kilns | 1,3 | % | 67 |  | 68 |  | 69 | 70 |  |
| 1. Pollution Control |  |  |  |  |  |  |  |  |  |
| 1. Coverage of the Effluent Treatment Plant (ETP) of the industry | 3 | % | 78 |  | 80 |  | 82 | 84 |  |
| 1. Extent of pollution free air in Dhaka City | 67 |  | 67 |  | 67 | 68 |  |
| 1. Preserving endangered species |  |  |  |  |  |  |  |  |  |
| a. Identifying endangered plant species | 4 | Number of species | 400 |  | 600 |  | 100 | 100 |  |
| b. Collecting and preserving endangered plant species | 250 |  | 360 |  | 360 | 360 |  |

**6.0 Recent Achievements, Activities, Output Indicators, Targets and Expenditure Estimates of the Departments/Agencies**

**6.1 Secretariat**

**6.1.1 Recent Achievements:** To enhance the adaptability of the affected people and improve the living standard, Tk 300 core has been allocated from 2015-16 to 2017-18 under Bangladesh Climate Change Trust Fund (BCCTF) 208 projects are undertaken from this allocation. Among them, 54 projects are completed. The activity of updating Bangladesh Climate Change Strategy and Action Plan are continuing. The formulation of action plan for the implementation of Country Investment Plan (CIP) is going on. The approved Country Investment Plan (CIP) has given priority projects related to climate change for four priority sectors, namely, agriculture and natural resources, water resources, disaster management and energy sector.

**6.1.2 Activities, Output Indicators and Targets**

| **Activities** | **Output Indicator** | **Related Strategic Objectives** | **Unit** | **Revised Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 1. Improve living standard of people affected by climate change | Undertaken projects | 1 | Number of Project | 100 |  | 75 |  | 75 | 75 |  |
| 1. Updating of Bangladesh Climate Change Strategy and Action Plan (BCCSAP) | Undertaken activities | 1 | Number of document | 1 (2nd Draft) |  | 1 (Final) |  | - | - |  |
| 1. Preparation and finalization of National Adaptation Plan. | Undertaken activities | 1 | 1 (1st Draft) |  | 1 (2nd Draft) |  | 1 (Final) | - |  |

**6.1.3 Medium Term Expenditure Estimates by Institutional Unit, Schemes and Projects**

(Taka in Thousands)

| **Name of the Institutional Unit/Scheme/ Project** | **Related Activity** | **Actual**  **2018-19** | **Budget** | **Revised** | **Medium Term Expenditure Estimates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|  |  |  |  |  |  |  |  |

**6.2 Department of Environment**

**6.2.1 Recent Achievements:** To protect biodiversity of the country, ecologically Critical Areal Management Rules, 2016 and Bangladesh Biodiversity Act, 2017 have been issued. Department of Environment has modernized to make its central laboratory for Genetically Modified Organism (GMO) suitable for detection activity targeted for bio-safety. Jaflong-Dawki river has been declared as 13th Ecologically Critical Areal (ECA) of Bangladesh. During last 3 years, tk.36.21 crore was collected as compensation and legal action has been taken against 2018 industries under enforcement activities. To simplify and digitalize the issuance of environmental certificate, on-line application system has been introduced. To reduce indoor air pollution and emission of green house gases, 9,73,278 improved cookers has been distributed across the country.

**6.2.2 Activities, Output Indicators and Targets**

| **Activities** | **Output Indicator** | **Related Strategic Objectives** | **Unit** | **Revised Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 1. Implementation Clean Development Mechanism program (CDM) in 6 districts to reduce carbon emission from organic waste. | Pourashavas under CDM implementation | 1 | Number | 6 |  | 6 |  | 6 | 8 |  |
| 1. Undertake awareness raising activities to enhance adaptation and mitigation capacity of the people to face the challenges of climate change and conduct researches/studies in these areas | Distributed book,leaflets,  directives | 1 | Number | 4 |  | 5 |  | 5 | 5 |  |
| Research/  Study | 2 |  | 2 |  | 2 | 2 |  |
| 1. Increase the use of improved technologies for brick kilns to reduce carbon emission | Brick kilns with improved technology | 1 | Number  (in thousand | 5.5 |  | 6.0 |  | 6.5 | 7.5 |  |
| 1. Conduct mobile courts against production and use of harmful polythene. | Mobile Court | 3 | Number | 600 |  | 620 |  | 650 | 680 |  |
| 1. Reduce the emission of the motor vehicle, reduce/control noise pollution, reduce air pollution, and to prevent industrial pollution by ensuring the use of modern technology and taking enforcement activities in necessary case | Enforcement to reduce pollution from Motor vehicles | 3 | Number of vehicle (enforcement) | 300 |  | 350 |  | 400 | 450 |  |
| Enforcement to reduce sound pollution | Enforcement Number of place | 150 |  | 150 |  | 175 | 180 |  |
| Enforcement to reduce pollution from industries | Number of ETP | 1700 |  | 1720 |  | 1750 | 1780 |  |
| Installation of developed Cook stove | Number in lakh | 1.5 |  | 3.0 |  | 3.0 | 3.0 |  |
| 1. Increase people's awareness in conservation of bio-diversity | aware people | 4 | Person  (in thousands) | 4000 |  | 4100 |  | 4200 | 4300 |  |

**6.2.3 Medium Term Expenditure Estimates by Institutional Unit, Schemes and Projects**

(Taka in Thousands)

| **Name of the Institutional Unit/Scheme/ Project** | **Related Activity** | **Actual**  **2018-19** | **Budget** | **Revised** | **Medium Term Expenditure Estimates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|  |  |  |  |  |  |  |  |

**6.3 Department of Forest**

**6.3.1 Recent Achievements:** Targetedfor economic development, employment creation , poverty alleviation, prevention of natural disasters and protection of environmental balance, during the last three years, 10,356 hectares block plantation, 8,753 hectares Mangrove plantation and 4,506 kilometers strip plantation were created and 1,14,63,700 number of seedlings have been sold and distributed among the people by the Forest Department. The carbon survey of 15 protected areas, including the Sundarbans, has been completed. The amount of carbon reserves in the protected areas have been determined by this survey. The amount of carbon reserves is 256 Mt. To ensure poor people's access to public resources through social forestation and make them self-reliant. Sale proceeds from harvested trees amounting tk 84.92 were distributed to beneficiaries as dividend. 42 protected areas have been declared for conservation of bio-diversity and wildlife. 21 draft rules have been formulated for the proper implementation the Wildlife (Protection and Security) Act 2012.

**6.3.2 Activities, Output Indicators and Targets**

| **Activities** | **Output Indicator** | **Related Strategic Objectives** | **Unit** | **Revised Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 1. Creating green belt to protect marine cyclone through conservation of established coastal forest. | Undertaken Mangrove garden | 1 | Hectare  (in thousands) | 5.0 |  | 5.0 |  | 5.5 | 6.0 |  |
| 1. Create and manage participatory block gardens and strip gardens and restoration of forest through Assisted Natural Regeneration / Enrichment plantation in degraded forest | Created  Block gardens | 2 | Hectare  (in thousands) | 4.15 |  | 4.35 |  | 4.6 | 5.15 |  |
| Created  strip gardens | Km  (in thousands) | 1.3 |  | 1.35 |  | 1.4 | 1.5 |  |
| 1. Sale and distribution of seedling to people for afforestation in private lands | Sold and distributed seedlings | 2 | Number  (in lakh) | 35.0 |  | 40.0 |  | 45.0 | 50.0 |  |
| 1. Reducing dependency of people on forest resources, expansion of social forestry and share of benefits | Amount of the dividends distributed | 2 | Crore Tk | 23.00 |  | 25.00 |  | 27.0 | 28.0 |  |
| 1. Strengthen forest management through demarcation of government forest land and re-establishment of encroached forest land through plantation. | Preparing digital maps of forest | 2 | Hector | 3000 |  | 3000 |  | 3500 | 3700 |  |
| Recovery of forest land | 525 |  | 450 |  | 500 | 525 |  |
| 1. Implement co-management model in protected forest areas trough people participation and expansion of protected area | Extended protected area | 4 | Number | 43 |  | 44 |  | 45 | 46 |  |
| 1. Conducting bio-diversity survey in protected areas for conservation of endangered species on the basis of survey.. | Listed species for preservation | 4 | Number | 12 |  | 12 |  | 10 | 8 |  |
| 1. Ensuring movement, breeding security and necessary rehabilitation of wildlife and awareness building among the local people in this regard. | Training | 4 | Number | 400 |  | 350 |  | 350 | 300 |  |

**6.3.3 Medium Term Expenditure Estimates by Institutional Unit, Schemes and Projects**

(Taka in Thousands)

| **Name of the Institutional Unit/Scheme/ Project** | **Related Activity** | **Actual**  **2018-19** | **Budget** | **Revised** | **Medium Term Expenditure Estimates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|  |  |  |  |  |  |  |  |

**6.4 Bangladesh Forest Research Institute**

**6.4.1 Recent Achievements:** At field level, 4, 39,350 seedlings of 20 advanced varieties of tree species including bamboo and cane have been raised. 36,000 seedlings of 6 species of bamboo have been extracted (Baisya, Bhudum, Ghati, Taitua, Barak and Ora). Besides this, 3600 seedlings of 7 species of bamboo (Baijya, Bhudum, Ora, Brandy, Wappi, China and owl) have been extracted by tissue culture. To resolve the crisis of raw material for pulp for paper making, 6000 seedlings of Nalita trees have also been lifted. 54,200 seedlings have been extracted from 12 herbal plants and three canes. The germplasm of 10 varieties of medicinal trees has been collected (nagana, pitya madhuphu, deval, honakaiich, sadaliya, parul, sudaljabati, kolkokucho, orchid and atomora). The report has been given to consumers by identifying 134 timber samples. 15 students of the Institute of Forestry and Environmental Sciences of the Chittagong University completed the internship program on research activities of this institute. A total of 153 training, workshops and seminars have been organized on various innovative technologies developed by BFRI. Arrangements have been made to promote innovative technologies and research in print and electronic media. By the implementation of annual research program, the effect of Gamar tree has been determined. Through research, the technique of making furniture, doors and particle boards has been invented by the bamboo product. The diagnosis and prevention techniques of two types of tree garden and nursery have been identified.

**6.4.2 Activities, Output Indicators and Targets**

| **Activities** | **Output Indicator** | **Related Strategic Objectives** | **Unit** | **Revised Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 1. Create laboratory gardens of different species of forest trees. | Created research/laboratory Garden | 2 | Hectare | 00 |  | 36.84 |  | 55 | 60 |  |
| 1. Production of improved quality bamboo and medicinal plants by tissue culture. | Produced saplings | 2 | Lakh | .627 |  | 0.70 |  | 0.35 | 0.40 |  |
| 1. Organize training/workshops/ seminars to transfer invented technologies, and conduct field research. | Training, Workshops, seminar | 2 | Number | 13 |  | 50 |  | 50 | 50 |  |
| Transferred Technology | 4 |  | 24 |  | 24 | 24 |  |
| Field study | 53 |  | 70 |  |  | 75 | 75 |

**6.4.3 Medium Term Expenditure Estimates by Institutional Unit, Schemes and Projects**

(Taka in Thousands)

| **Name of the Institutional Unit/Scheme/ Project** | **Related Activity** | **Actual**  **2018-19** | **Budget** | **Revised** | **Medium Term Expenditure Estimates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|  |  |  |  |  |  |  |  |

**6.5 Bangladesh National Herbarium**

**6.5.1 Recent Achievements:** During the last three financial years, the scientists of Bangladesh National Herbarium collected 4,026 plants species through botanical surveys from different areas of 07 districts. Among the collected species 3000 plants have been identified through Taxonomic Studies. In addition, about 3,335 plants species were identified by the students of different universities, colleges and research institutes. During this period, 4,026 plants specimens were preserved scientifically in the Herbarium cupboards and duplicate boxes. Moreover, 2,870 plants specimens were preserved scientifically in the Herbarium cupboards with accession number three new series of "Flora of Bangladesh" and a journal named "Bulletin of the Bangladesh National Herbarium" have been published under the activities of Taxonomic Studies and Flora of Bangladesh. 150 threatened plant species were identified according to the IUCN Red List Criteria. The researchers of herbarium have listed 02 plants species as "New Records" for Bangladesh and 04 Arum species are listed as new to science in international standard taxonomic journal named ‘Bangladesh Journal of Plant Taxonomy’. Moreover, database of 3466 plants species have been prepared and 2,305 students from different universities and colleges have provided practical demonstration on plant sample collection, preservation process and herbarium techniques.

**6.5.2 Activities, Output Indicators and Targets**

| **Activities** | **Output Indicator** | **Related Strategic Objectives** | **Unit** | **Revised Target** | **Actual** | **Target** | **Revised Target** | **Medium Term Targets** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2018-19** | | **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 1. Implement programs on botanical survey, plant identification and preservation of plant specimen, research on plant taxonomy and floristic publication | Collected and preserved plant specimen | 4 | Number | 1000 |  | 1400 |  | 1400 | 1400 |  |
| Identified  plants | 1000 |  | 1000 |  | 1000 | 1000 |  |
| Publication of “Flora of Bangladesh” series | 3 |  | 3 |  | 3 | 3 |  |
| Preparing herbarium database | 1050 |  | 1050 |  | 1050 | 1050 |  |
| Publication of “Bulletin of the Bangladesh National Herbarium | 1 |  | 1 |  | 1 | 1 |  |

**6.5.3 Medium Term Expenditure Estimates by Institutional Unit, Schemes and Projects**

(Taka in Thousands)

| **Name of the Institutional Unit/Scheme/ Project** | **Related Activity** | **Actual**  **2018-19** | **Budget** | **Revised** | **Medium Term Expenditure Estimates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2019-20** | | **2020-21** | **2021-22** | **2022-23** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|  |  |  |  |  |  |  |  |