

**Grant No. 39**  
**45 - Ministry of Environment and Forest**  
**Medium Term Expenditure**

(Taka in Thousand)

	<b>Budget 2010-11</b>	<b>Projection 2011-12</b>	<b>Projection 2012-13</b>
Non-Development	955,94,44	269,29,52	283,11,12
Development	242,52,00	269,70,48	328,88,88
<b>Total</b>	<b>1198,46,44</b>	<b>539,00,00</b>	<b>612,00,00</b>

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

### **1.1 Mission Statement**

Ensure habitable environment for the present and future generations of the country by increasing forest land, development of forest and forest resources, conservation and identification of bio-diversity, prevention of environmental pollution, mitigation of and adaptation to climate change and development of sustainable environment through use of sustainable technology.

### **1.2 Major Functions**

- (a) Conservation of the environment, improvement of the environment quality and control of the environmental pollution;
- (b) Adaptation and implementation of appropriate clauses contained in different regional and international conventions, agreements, and protocol relating to the environment, forestry and wild life;
- (c) Research and training relating to forestry and environment issues;
- (d) Planting of trees, creation of new forest areas, extraction of re-generating forest resources, implementation of social forestry programmes and carrying out classification of plant ;
- (e) Conservation, extension and development of forest resources (Government and private) and preparing a forest inventory;
- (f) Conservation of wild life and bio-diversity, expansion of eco-tourism (environment friendly tourism) and establishment of sanctuaries and eco-parks;
- (g) Maintain the botanical gardens, plant species surveys and identification and conservation;
- (h) Extraction of forest resources, establishing forest resource based industries, marketing of produced products.

## 2. Medium Term Strategic Objectives and Key Activities

Medium Term Strategic Objectives	Key Activity	Implementing Departments/Agencies
1. Reduction of the adverse effects of climate change and implementation of adaptation strategy	<ul style="list-style-type: none"> <li>• Undertake training and awareness programme to face climate change</li> <li>• Impact, vulnerability and strategy implementation</li> <li>• CDM in 64 districts to reduce carbon/methane release from organic waste</li> <li>• Capacity and awareness building for prevention in decay of ozone level</li> <li>• Conversion of CFC based refrigerator and CFC based meter doze inhaler in the pharmaceutical sector into environment friendly technology</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Environment</li> </ul>
	<ul style="list-style-type: none"> <li>• Undertake Community based Adaptation programme through coastal afforestation</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Forest</li> </ul>
2. Conservation of bio-diversity	<ul style="list-style-type: none"> <li>• Implementation of National Bio-diversity Framework</li> <li>• Conservation programme in declared “Environmentally Critical Areas” and implementation of programmes according to bio-diversity Conservation Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Environment</li> </ul>
	<ul style="list-style-type: none"> <li>• Preparation of Bangladesh Wild Life Conservation Law and Wild Life Conservation policy.</li> <li>• Implementation of Co-management Model in the environmentally protected areas.</li> <li>• Conservation of rare varieties of trees and animal in aviaries, sanctuaries, eco-parks, botanical gardens and safari parks and creation of new gardens, development of habitat of wild animals, construction of environment friendly infrastructure and expansion eco-tourism.</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Forest</li> </ul>
	<ul style="list-style-type: none"> <li>• Botanical surveys, plant identification and plant specimen preservation programme</li> </ul>	<ul style="list-style-type: none"> <li>• Bangladesh National Herbarium</li> </ul>
	<ul style="list-style-type: none"> <li>• Preparation of a list of existing trees in the Buddhist temples of the Bandarban district of</li> </ul>	<ul style="list-style-type: none"> <li>• Bangladesh Forest Research Institute</li> </ul>

Medium Term Strategic Objectives	Key Activity	Implementing Departments/Agencies
	Chittagong Hill Tracts and the Rangamati district and collect saplings and create a garden	
3. Pollution Control	<ul style="list-style-type: none"> <li>• Restrict the setting up of new industries which will be harmful to the environment and manage a control system for the existing industries which create pollution and conduct pollution surveys of factories and industries</li> <li>• Implement a National 3R (Reduce, Reuse and Recycle) Strategy for Solid Waste Management, prepare a Waste Management Module and manage the overall improvement of the environment of Buriganga, Shitalkha, Balu, and Turag rivers</li> <li>• Conduct motor vehicle checks to measure emissions and promote the introduction of environmental friendly technology</li> <li>• Encourage the owners of brick fields to use environmentally friendly technology and set up centres for checking air pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Environment</li> </ul>
4. Reduction in the rate of deforestation and extension of forest land coverage.	<ul style="list-style-type: none"> <li>• Creation of participatory block gardens, agricultural forest and creation of coastal char afforestation and mangrove forest to face natural calamities</li> <li>• Creation of participatory strip garden</li> <li>• Planting of sapling in homestead and expansion of homestead forestry through sale and distribution of saplings</li> <li>• Forest division encouraging the public to plant trees in private land</li> <li>• Conservation and expansion of medicinal plants</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Forest</li> </ul>
5. Sustainable Land Management, protection from land erosion and hill land conservation	<ul style="list-style-type: none"> <li>• Planting trees, watershed management and prevention of illegal hill tree cutting and soil removal</li> <li>• Preparation of a land zoning policy for sustainable land management</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Environment</li> </ul>

Medium Term Strategic Objectives	Key Activity	Implementing Departments/Agencies
6. Increase access of the poor to common property resources	<ul style="list-style-type: none"> <li>• Involvement and training of the poor people in social forestry in Khas land, road side, river bank and embankment and in Hill and coastal areas</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Forest</li> </ul>
7. Undertake research programmes to ensure production, conservation and utilisation of forest resources	<ul style="list-style-type: none"> <li>• Collection of planting materials of different species of forest trees to allow the creation of research gardens</li> <li>• Innovation of technology for the production of saplings using tissue culture system of bamboo and medicinal plant varieties</li> <li>• Identification of pest-insects and diseases of seeds and trees of important forest plants and improve the subdual management of plant diseases</li> <li>• Training, workshops and seminars, field days, advisory services, circulation through mass media to expand technology</li> </ul>	<ul style="list-style-type: none"> <li>• Bangladesh Forest Research Institute</li> </ul>
8. Establish good governance, increase capability, institutional infrastructure and participatory activities for environment and natural resources management	<ul style="list-style-type: none"> <li>• Examine the possibility of enhancing the efficiency of NGO, CBO and Private sector involvement in order to play a role in management of environment</li> <li>• Development of partnerships and increase of awareness between the Public and Private Sector</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Environment</li> </ul>

### 3. Poverty and Gender Reporting

#### 3.1 Impact of Strategic objectives on Poverty Reduction and Women's Advancement

##### 3.1.1 Reduction of the adverse effects of climate change and implementation of adaptation strategy

**Impact on Poverty Reduction:** Following undertaking of Adaptation and Mitigation Activity to face adverse impact of climate change, loss and damages will be reduced which will reduce the risks of poverty. On the other hand, training of the technicians on substance emissions which causes damage to the ozone layer will create opportunities for self-employment.

**Impact on women's advancement:** Water and agriculture will be worst affected in climate changes. Consequently, women will be worst hit. Adaptation programme will be helpful for the women as part of the total population to keep good health. Women are included in the training

programme for the technicians in the refrigeration sector in reducing emissions from ozone harmful materials. This will play a role for the women to be more environmentally responsible in their workplace.

### **3.1.2 Conservation of bio-diversity**

**Impact on Poverty Reduction:** As a result of awareness creation programmes and the preparation of a Wild Life Conservation Law and a Wild Life Conservation Policy, opportunities will be created to increase the income of many people and this will have significant impact on poverty reduction.

**Impact on Women's Advancement:** On-going co-management programmes related to bio-diversity have provision for the participation of about 50% local ultra poor and destitute women. There is also provision for 30% female leadership in the committees involved in the preparation of local plans. These provisions will create opportunities to increase the income of these poor women and will also facilitate their social empowerment

### **3.1.3 Pollution control**

**Impact on Poverty Reduction:** No direct impact

**Impact on Women's Advancement:** No direct impact

### **3.1.4 Reduction in the rate of deforestation and extension of forest land coverage**

**Impact on Poverty Reduction:** Creation of block and strip plantations, and coastal "char" green belts of trees to reduce the impact of natural calamities. These activities will have a direct impact in increasing the security of the poor people.

**Impact on Women's Advancement:** Encouragement of women's participation in awareness building and training activities for those involved in social forestry, and also the planting of saplings in homesteads and distribution of seed will directly enable women to become involved in income generating activities.

### **3.1.5 Sustainable Land Management, protection from land erosion and hill land conservation**

**Impact on Poverty Reduction:** There will be an indirect impact on the development of the quality of life for the poor people as a result of country wide planting of trees and watershed management programmes.

**Impact on Women's Advancement:** There will be an indirect impact on the development of the quality of life for a section of women as a result of programmes for country wide planting of trees and the prevention of hill cutting.

### **3.1.6 Increase access of the poor to common property resources**

**Impact on Poverty Reduction:** Government sponsored development projects and programmes in hill and "shal" forest area, coastal island areas, the sides of rail tracks, embankments and "Khas" land will assist income generation of larger section of people and will have overall impact on poverty reduction.

**Impact on Women's Advancement:** Women will gain greater access to common property and this will have a direct impact on their empowerment.

### 3.1.7 Undertake research programmes to ensure appropriate production, utilisation and conservation of forest resources

**Impact on Poverty Reduction:** As a result of technical innovations in the production of saplings using bamboo and medicinal plant tissue culture systems, pest, insect and diseases control management programmes and organising field days, seminars and workshops, the opportunities for income generating activities amongst the poor people will increase.

**Impact on Women's Advancement:** Production of saplings using tissue culture systems and ensuring the participation of women in training programmes relating to this technique will assist in increasing the income generating opportunities of the women..

### 3.1.8 Establish good governance in environmental and natural resources management and the expansion of participatory activities

**Impact on Poverty Reduction:** Ensuring participation of the NGOs and private sector in cooperation with the public sector in environment management and carrying out inspiring activities to encourage participatory programmes will indirectly assist in reducing poverty.

**Impact on Women's Advancement:** As a result of the enthusiasm created through inducement during the implementation of participatory programmes, there will be indirect impact on women's development as part of the wider community.

## 3.2 Allocation for Poverty Reduction and Women's Advancement

(Taka in Thousand)

Particulars	Budget 2010-11	Projection 201-12	Projection 2012-13
Poverty Reduction	570,44,64	146,53,80	165,83,38
Gender	283,64,46	101,23,11	117,79,84

## 4. Priority Spending Areas/Programmes

Priority Spending Areas/Programmes	Related Strategic Objectives
<p><b>1. Face the adverse effects of climate changes:</b> Bangladesh is one of the worst affected countries in the world due to climate changes. Dealing with the adverse impact of climate changes, creating awareness of the changes and implementing the programmes required to adapt to changed conditions is therefore given the highest priority.</p>	Reduction of the adverse effects of climate change and implementation of adaptation strategy

Priority Spending Areas/Programmes	Related Strategic Objectives
<p><b>2. Development and conservation of Bio-diversity of plants and animal:</b>            Bio-diversity is being destroyed by increased population, climate change and livelihood changes. Protection of Bangladesh's bio-diversity is essential in order to protect the environment. There will be focused activities to increase and develop classified forest areas, protect the existence of endangered plants and wild life, protect existing animal and plants varieties, develop the environment, survey forest and wild life, run information provision programmes and promote eco-tourism, maintain the food chain balance and balance amongst different living things, and reduce the pressure of collection on almost extinct plants through the creation of alternative livelihood methods. This sector given the second priority</p>	Conservation of bio-diversity
<p><b>3. Control pollution:</b>            The implementation of the Environment Protection Law-1995, that is pollution control, solid and soft waste management play important role in the development of the environment. This is the reason why this sector has been given priority.</p>	Control pollution
<p><b>4. Conservation of existing forest and creation new forest:</b>            Protecting land from erosion, and forests from degradation, ensuring the stability of newly formed char land, increasing the quality of land, the protection of life and properties from natural calamities, the development of bio-diversity of the plant and animal varieties, increasing the extent and coverage of forest land, poverty reduction and bringing balance into the atmosphere by increasing oxygen are very important and that is why, these programmes have been given appropriate priority.</p>	Reduction in the rate of deforestation and extension of forest land coverage
<p><b>5. Participation of the people in the common properties and increase of forest resources:</b>            This involves both the creation and collection of forest resources in a sustainable way, creating awareness and ensuring participation of the people in tree plantation, and distribution of profit share among those involved as beneficiaries</p>	Increase access of the poor to common property resources

### Key Performance Indicators (KPIs)

Indicators	Related Strategic Objectives	Unit	Target 2008-09	Actual 2008-09	Target 2009-10	Revised Target 2009-10	Medium Term Targets		
							2010-11	2011-12	2012-13
1. Forest cover area	4	%	12.90	12.88	13.01	13.01	13.14	13.28	13.42
2. Rate of refining of waste	3	%	-	-	100	70	75	85	90
3. Prevention of pollution of rivers around Dhaka City	3	Mg/l diluted oxygen (d.o)	-	-	4.5	3.0	3.5	4.0	4.5
4. Technology transfer	5,7	Number	5	5	5	5	5	5	6

## 5. Recent Achievements, Key Activities and Outputs of the Departments and Agencies under the Ministry

### 5.1 Department of Environment (DoE)

**5.1.1 Recent Achievements:** Performances during the last three years include more than 40 research and awareness creating publication and publicity. In order to control air pollution, 5 permanent air quality monitoring centres in Dhaka, Chittagong, Rajshahi and Khulna divisional head quarters and one inter-country air pollution monitoring centre in Shayamnagar Upazila of Sathkhira district were established. The Sound Pollution Guidelines-2006 was introduced to control sound pollution. Ecological Critical Area (ECA) coordination committees were established at District, Upazila and Union level in order to involve all classes of people in bio-diversity conservation activities. 72 Village Conservation Groups (VCG) were formed to bring the general public and poorer people under environmental programmes. Community based nurseries for the protection of bio-diversity and sanctuaries for fish and wild animals were established. Training programmes on a variety of issues were implemented to improve the capacity of the Department of Environment. Environment Impact Assessment (EIA) and Effluent Treatment Plant (ETP) guidelines were prepared.

### 5.1.2 Key Activities, Outputs related to activities and related Strategic Objectives

Key Activity	Outputs related to the Activity	Related Strategic Objectives
1. Undertake programmes to face climate change and to create awareness	<ul style="list-style-type: none"> <li>• Publication of 100 advertisements in daily papers</li> <li>• Creation of 8 TV spots to raise public awareness of air pollution</li> <li>• Observation of different days relating to the environment</li> <li>• Training to 512 persons</li> </ul>	1

Key Activity	Outputs related to the Activity	Related Strategic Objectives
2. Impact, Vulnerability and Adaptation activities	<ul style="list-style-type: none"> <li>• Conduct 10 research programmes and publication of reports relating to pollution control, reduction of pollution emission, harmful impact of pollution and adaptation</li> </ul>	1
3. Implementation of CDM to reduce emissions of carbon/methane from organic waste	<ul style="list-style-type: none"> <li>• Reduction of carbon/methane through 1 CDM project in 64 districts at a cost of Tk 25 crore.</li> </ul>	1
4. Capacity building to reduce depletion of ozone depleting and undertake awareness programme	<ul style="list-style-type: none"> <li>• Provide Good Service Practice training to 600 technicians</li> </ul>	1
5. Conversion of CFC based refrigerator and CFC based meter dose inhaler in Pharmaceutical sector into environment friendly technology	<ul style="list-style-type: none"> <li>• Provide training to 600 persons relating to refrigerator sector and conversion of 23 meter dose inhaler in Pharmaceutical sector into environment friendly technology</li> </ul>	1
6. Implementation of National Bio-safety Framework	<ul style="list-style-type: none"> <li>• Introduction and enforcement of Bio-safety law and guidelines</li> <li>• Establishment of 1 Bio-safety reference lab</li> <li>• Organisation of 10 workshops</li> </ul>	2
7. Conservation programme in declared "Environmentally Critical Areas" and implementation of programmes according to bio-diversity Conservation Management Plan	<ul style="list-style-type: none"> <li>• Implementation of 1 Integrated Protected Area Co-Management Project at a cost of Tk 20 crore</li> </ul>	2
8. Restrict the setting up of new industries which will be harmful to the environment and manage a control system for the existing industries which create pollution and conduct pollution surveys of factories and industries	<ul style="list-style-type: none"> <li>• Signing of I MOU with Bangladesh Export Processing Zone Authority</li> <li>• Enforcement programme implementation</li> <li>• Advertisement in the billboard</li> <li>• Preparation of Decision Support System in Greater Dhaka District (4 districts)</li> </ul>	3
9. Implement a National 3R (Reduce, Reuse and Recycle) Strategy for Solid Waste Management, prepare a Waste Management Module and manage the overall improvement of the	<ul style="list-style-type: none"> <li>• Waste reduction, re-use and re-cycle related National Strategy Paper and preparation of 5 module on waste management</li> </ul>	3

Key Activity	Outputs related to the Activity	Related Strategic Objectives
environment of Buriganga, Shitalkha, Balu, and Turag flowing around Dhaka		
10. Conduct motor vehicle checks to measure emissions and promote the introduction of environmental friendly technology	<ul style="list-style-type: none"> <li>Conduct of 10 raids to check motor vehicles emissions level</li> </ul>	3
11. Encourage the owners of brick fields to use environmentally friendly technology and set up centres for checking air pollution	<ul style="list-style-type: none"> <li>Establishment of 6 all time air quality level investigations centres</li> </ul>	3
12. Tree plantation, water shade management and illegal cutting of hills	<ul style="list-style-type: none"> <li>Planting of 1 lakh saplings</li> <li>Stoppage of illegal hill cutting and publication of 30 advertisements in dailies</li> </ul>	5
13. Preparation of land zoning policy for sustainable land management	<ul style="list-style-type: none"> <li>Implementation of 1 experimental programme/demonstration of land management in Barendra areas</li> <li>Preparation of draft land zoning policy</li> </ul>	5
14. Verification of skill development possibility of NGO, CBO and private sector role in environmental management	<ul style="list-style-type: none"> <li>Programme implementation jointly with 5 NGOs</li> <li>Sustain the activities of 72 village conservation groups</li> <li>Increase the capacity of 3500 Village Conservation Group</li> </ul>	8
15. Development and increase awareness of partnerships between the Public and Private Sector	<ul style="list-style-type: none"> <li>Organisation of 6 Workshops for the development and creation of awareness about partner-ship between Public and Private Sector</li> </ul>	8

### 5.1.3 Output Indicators and Targets

Output Indicators	Unit	Actual 2008-09	Target 2009-10	Revised Target 2009-10	Medium Term Targets		
					2010 -11	2011-12	2012-13
1. Environmental certificates	Number	8,469	8,500	8,500	9,000	9,500	10,000
2. Permanent Air quality monitoring stations	Number	00	01	01	02	03	00
3. Enforcement programme	Number	131	350	250	300	350	400
4. Training	Persons	600	650	650	650	700	750

### 5.1.4 Forward Budget Estimates

(Taka in Thousand)

	<b>Budget 2009-10</b>	<b>Revised 2009-10</b>	<b>Budget 2010-11</b>	<b>Projection 2011-12</b>	<b>Projection 2012-13</b>
Non-development	7,04,20	9,80,95	13,93,00	17,91,05	21,40,30
Development	20,97,00	31,18,00	41,32,00	36,18,26	22,88,00
Total	28,01,20	40,98,95	55,25,20	54,09,31	44,28,30

### 5.1.5 List of Projects, Programmes, and Operational Units

<b>Operational Unit/Project/Programme</b>	<b>Related Key Activity</b>
Operational Unit (Non-development)	
Department of Environment	1-15
Approved Projects	
1. Clean Air and Sustainable Environment Project	4
2. Coastal and Wetland Bio-diversity Management in Cox's Bazar and Hakaluki Haor	8
3. Bangladesh Environmental Institutional Strengthening Project	14
4. National ODS Phase out Plan-UNEP Component	4
5. National ODS Phase out Plan-UNEP Component	4
6. Preparation for Second National Communication(SNC) of Bangladesh	2
7. Formulating National Strategy on Waste Reduction, Reuse and Recycling (3R) for Bangladesh	9
8. Institutional Strengthening for Phase Out of Ozone Depleting Substance-Phase: 5	4
9. Transition Strategy for the Phase Out of CFC Consumption in the Manufacture of Meter Dose Inhalers in Bangladesh	5,1
10. Phase out the CFC consumption in the Manufacturing of Mitard Doze Inhaler in Bangladesh	1
Unapproved Projects	
1. Integrated and Participatory ECA Management Project	2
2. Partnership for Clean Fuel and Vehicles	11
3. Bangladesh Environment and Climate Change Outlook Report	4
4. Extension of Infrastructure and Increase the Capacity of DOE	8
5. Implementation of National Bio-safety Framework	6
6. Establishment of Bangladesh Environmental Research and Training Institute Monitoring and Enhancement of Industrial Pollution Control	8
7. E-Waste Management in Bangladesh	9
8. Coastal and Wetland Bio-diversity Management Project	7
9. Programmatic CDM for composting in Bangladesh	3

Operational Unit/Project/Programme	Related Key Activity
10. Facilitating Main streaming Climate risk Management and Adaptation into National Development Process	1
11. Dhaka Integrated Environment and Water Resources Management	5
Unapproved Programmes	
1. Participatory Programme for Conservation of the Environment	15

## 5.2 Department of Forest (DoF)

**5.2.1 Recent Achievements:** Activities of the DoF have involving conservation of the environment and neighbourhood, prevention of soil erosion and desertification of the country and different programmes are continuing to protect the coastal area from the effects of natural calamities. During the last three years, 35,31,3.82 hectares of block garden, 1,885.52 km of strip plantation, and 23, 22,000 saplings, including homestead, farm house institutions plantation were covered under afforestation. The DoF sold and distributed 10, 25,000 lakh saplings among the people in order to involve them in forest expansion and to extend forest coverage on private land. During this time, the DoF provided training in social forestry to 22, 074 persons which allowed the poor village people to benefit from common property. There are 19 protected areas in different regions of the country. Co-management was implemented in 6 protected areas to promote conservation of bio-diversity and the protection of wild life and implementation of co-management are in progress in the remaining protected areas. Eco-park areas, botanical garden areas and safari park areas including some attractive places in the Sundarbans were selected in order to expand eco-tourism.

### 5.2.2 Key Activities, Outputs related to the Activity, and related Strategic Objectives

Key Activity	Output related to the Activity	Related Strategic Objectives
1. Peoples" Participatory Community based Adaptation Programme through Coastal Afforestation	<ul style="list-style-type: none"> <li>• Training to 1,12,200 families</li> <li>• Creation of 6,000 mangrove garden</li> <li>• 724 hectares of non-mangrove afforestation and 1000 km of strip garden creation</li> </ul>	1
2. Up dating the Bangladesh wild animal protection law and conservation policies	<ul style="list-style-type: none"> <li>• Update the1973 wild animal conservation order after revision</li> </ul>	2
3. Implementation of Co-management Model in protected area	<ul style="list-style-type: none"> <li>• Raise Co-Management programme in protected area from 6 to 19</li> </ul>	2

Key Activity	Output related to the Activity	Related Strategic Objectives
4. Creation of aviary parks, sanctuaries, eco-parks, botanical garden and conservation of rare varieties of plant and animal in the safari parks, creation of gardens, development of habitats of wild animals, construction of environment friendly infrastructure and expansion of eco- tourism	<ul style="list-style-type: none"> <li>1 new eco-park and new safari park will be established.</li> </ul>	2
5. Creation of participatory block garden, agricultural forest and to face natural calamities, creation of mangrove garden in the coastal area	<ul style="list-style-type: none"> <li>Block garden, agricultural forest, char garden and mangrove garden will be created in 53,500 hectares of land</li> </ul>	4
6. Creation of ownership sharing strip garden	<ul style="list-style-type: none"> <li>Creation of 19,928 km strip plantation</li> </ul>	4
7. Planting of saplings in the backyard of institutions and homesteads and expansion of area of homesteads through sale and distribution of saplings	<ul style="list-style-type: none"> <li>Institution and homestead afforestation-48.70 lakh (about) trees</li> </ul>	4
8. DOF will encourage the people to create forest in privately owned land	<ul style="list-style-type: none"> <li>Distribution and sale of about 32 lakh saplings among the people</li> </ul>	4
9. Conservation and expansion of medicinal plants	<ul style="list-style-type: none"> <li>Planting of about 0.50 lakh medicinal saplings</li> </ul>	4
10. Involvement and training of the poor people in social forestry plantation in Hill and "Shal" forest areas, Khas land, road and rail sides, river banks, hilly areas, and coastal "char" lands	<ul style="list-style-type: none"> <li>Involvement and training of 47,500 poor people</li> </ul>	6

### 5.2.3 Output Indicators and Targets

Output Indicators	Unit	Actual 2008-09	Target 2009-10	Revised Target 2009-10	Medium Term Targets		
					2010 -11	2011-12	2012-13
1 Block plantation	Hectare	11,238	16,164	16,164	17,000	18,000	18,500
2 Strip plantation	km	617.14	8,089	8,089	6,128	6,600	7,200
3 Tree Plantation	Lakh Number	1.404	0.862	0.862	1.50	2.00	2.50
4 Saplings sale/distribution	Lakh number	4.50	14.96	14.96	15.00	16.20	17.50

Output Indicators	Unit	Actual 2008-09	Target 2009-10	Revised Target 2009-10	Medium Term Targets		
					2010 -11	2011-12	2012-13
5 Institution and homestead forest	lakh Number	4.05	11.05	11.05	13.00	14.00	15.00
6 Training in social forestry	Number	7,251	24,167	24,167	15,000	16,000	16,500

#### 5.2.4 Forward Budget Estimates

(Taka in Thousand)

Particulars	Budget 2009-10	Revised 2009-10	Budget 2010-11	Projection 2011-12	Projection 2012-13
Non-development	5,27,78	5,98,56	6,88,23	7,57,84	8,16,92
Development	35,55,00	35,88,00	74,29,00	54,51,10	45,57,20
Total	40,82,78	41,86,56	81,17,23	62,08,94	53,74,12

#### 5.2.5 List of Projects, Programmes and Operational Unit

Operational Unit/Project/Programme	Related Key Activity
Operational Unit	
Department of Forest	1-10
Approved Programmes	
1. Establishment of Eco-park on the West Side of Bangabodhu Bridge	2
2. Efficient Management and Development of Sangu- Matamuhuri Protected Forest Area	3
3. Green Circular Programme	6
4. Afforestation of Bank, Embankment and Link Road of Canals of Teesta Barrage	5
5. Afforestation Programme of Naked Hill in Greater Sylhet and Cox,s Bazar	
6. Establishment of Jaflong Green park	4
7. Establishment of Jaflong Green park	5
8. Afforestation Programme in Bagerhat,Pirojpur and Khulna after Sidre Cyclone	1
9. Rehabilitation and Development of Infrastructures in Sundarban	2
10. Rehabilitation and Development of Communication of Sundaban	3
11. Enrichment of Bio-diversity and Creation of Facilities for Amusement in Lalmai Mouza of Kotbaristha	3
UnApproved Programme	
1. Conservation of Bio-diversity and Environment Tourism Programme in Khrushia Range of South Chittagong Forest division	3
2. Development of Madhu Tila Eco-park Programme	4
3. Establishment of Pirojpur Riverview Eco-park	4
4. Increase of Eco-tourism Facilities Tengregiri Protected Forest Area	4

Operational Unit/Project/Programme	Related Key Activity
5 Development of a National Plant Garden and the Century Old Balda Garden( 4 <sup>th</sup> Phase)	4
6 Establishment of Muhuri Eco-park in Ichamati Area of Mirersharai Upazila under Chittagong District	5
7 Creation of Soft Wood suitable for pulp Garden, Sundarban	5
8 Renovation of Infrastructures of the Plain Area Forest Division and Development of Facilities (2 <sup>nd</sup> Phase)	5
9 Development of Sanctuaries for Wild Elephants and Improvement of Man-Elephant Relations in Sherpur, Jamalpur, Mymensing, Chittagong (Nort and south) Forest Division, Cox"s Bazar Forest Division (North and South), Chittagong Hill Tracts Forest Division ( North and South)	4
10 Renovation, Re-construction and Rehabilitation of almost Broken Rest Houses/Inspection Bungalows in Sylhet and Chittagong zone of Wild life and Nature Conservation Areas	4
11 Development of Nursery, Social Forestry with People's Participation and Reduction of Poverty Programme of Dhaka Social Forest Division	5
Approved Projects	
1 Reedland Integrated Social Forestry Project	5
2 Coastal Char Afforestation Project	6
3 Conservation of Bio-Diversity and Development of Natural Environment in Greater Jessore District	4
4 Establishment of Botanical Garden and Eco-park in Sitakunda,Chittagong 2 <sup>nd</sup> phase	4
5 Provide Assistance for Management of Sundarban Protected Forest Area	3
6 Further Development of Bangabandhu Sheikh Mujib Safari park, Cox"s Bazar	4
7 Creation Agar Garden( 1 <sup>st</sup> Phase)	4
8 Establishment of Eco-parks in Tilagara and Barshijora of Greater Sylhet district	4
9 Establishment of Dhanshiri Eco-park and the Development of Ramsagar National Garden (including Singra Entertainment Centre, Beel area of Ashuraer and Rani Sagar)	4
10 Conservation and Development of Bio-diversity in Bashkhali Upazila of Chittagong and Chunti Sanctuary	4
11 Establishment of Eco-park in Madhabkundu Fountain	4
12 Afforestation of Naked Hills of Chittagong North Forest Division (2nd Phase)	10
13 Conservation of Bio-diversity and Reduction of Poverty through Afforestation in Greater Rajshahi and Kushtia Districts	4,10
14 Social Forestry with Participation of Chittagong Hill Tracts People and Expansion of Forest	10
15 Char Development and Settlement Project-3 (July 05-December 2010) (Proposed Revised)	6

Operational Unit/Project/Programme	Related Key Activity
16 Bamboo, Cane and Murta Development project (2nd Phase) ( July 09- June 2014)	3
Technical projects	
1 Asia Pacific Forestry Out Look the Future of Asia and Pacific Forest	1
2 Re-establishment of Essential Management Capacity in the Sundarban World Heritage Site following Passage of Cyclone Sidr	1
3 Integrated Protected Area Co-Management	3
4 Initiation Phase of Green Bangladesh: Greening Initiative for Sustainable Livelihood of Rural Poor and bio- Diversity Conservation Project	2,3
5 Community Based Adaptation to climate Change through Coastal Afforestation in Bangladesh	1
Unapproved projects	
1 Reduction of Poverty through Social Forestry	10
2 Integrated Protected Area Co-Management	3
3 Bangabandhu Sheikh Mujib Safari Park, Gajipur	4
4 Sheikh Russel Aviary and Recreation Park, Chittagong	4
5 Sundarban Environment and Livelihood Security (SEALS)	4
6 Climate Change Resilient Plantation in the Core Zone of Bangladesh	10
7 Livelihood improvement, Deforestation Check and Climate Durable Plantation in the Buffer Zone of Bangladesh	1
8 Restoration and Conservation of Bio-Diversity in the Denuded Hills of Sitakundu, Mirrersharai, Banskhali, Enani Protected Area, Barind Dhamuriat, Sal Forest and Singra Sal Forest	2
9 Afforestation of Embankment of BWBD and Related Land in the Coastal Area to Face Adverse Impact of Climate Change	1
10 Planting and distribution of Saplings throughout the Country to Face Adverse Impact of Climate Change	8

### 5.3 Bangladesh Forest Research Institute (BFRI) Chittagong

**5.3.1 Recent Achievements:** In the recent past, activities of BFRI have resulted in increased production of latex from rubber trees, the manufacture of high quality furniture out of non-productive rubber tree, the production of cement bonded particle boards using wood and bamboo including publication of more than 20 articles relating to management (production and conservation) of forest resources and its use. In order to reach and transfer the innovated technologies to field level, 25 training programmes were organised and provided to 850 Government and non-government officers and staff. Information based posters, leaflets, booklets, fact sheets etc were published and distributed and seminars and workshops introducing the newly innovated

technologies were organised. Technology based TV spot and advertisement were produced and published through TV and news papers.

### 5.3.2 Key Activities, Outputs related to the Activity and related Strategic Objectives

Key Activity	Outputs related to the Activity	Related Strategic Objectives
1. Preparation of a list of existing trees in the Buddhist Temples of Bandarban district of Chittagong Hill Tracts and Rangamati district and collection of seedling and creation of garden	<ul style="list-style-type: none"> <li>Conservation of 40 tree varieties</li> </ul>	2
2. Collection of planting materials of different species of forest trees to allow the creation of research gardens	<ul style="list-style-type: none"> <li>Creation of 13.5 hectare of garden of forest tree varieties</li> <li>Maintenance of 680 hectare of gardens</li> </ul>	7
3. Innovation of technology for production of sapling using tissue culture system of bamboo and medicinal plant varieties	<ul style="list-style-type: none"> <li>Innovation of bamboo shoot processing through setting up one mini plant and training 300 persons</li> </ul>	7
4. Identification of pest-insects and diseases of seeds and trees of important forest plants and improve the control management of plant diseases	<ul style="list-style-type: none"> <li>Develop disease control mechanism for seeds and seedlings of 25 forest tree varieties</li> </ul>	7
5. Training, workshops and seminars, field days, advisory services, circulation through public media to extend technology	<ul style="list-style-type: none"> <li>Training to 3,000 persons.</li> <li>Organisation of 50 workshops, seminar and field days</li> </ul>	7

### 5.3.3 Output Indicators and Targets

Output Indicators	Unit	Actual 2008-09	Target 2009-10	Revised Target 2009-11	Medium Term Targets		
					2010-11	2011-12	2012-13
1. Creation of research gardens	hectare	60	65	60	68	68	70
2. Production of saplings for distribution	Lakh	0.50	1.90	1.90	2.00	2.00	2.00
3. Training	Number Persons	32	24	24	24	24	24
		816	1,000	1,000	1,000	1,000	1,000

### 5.3.4 Forward Budget Estimates

(Taka in Thousand)

Particulars	Budget 2008-09	Revised 2008-09	Budget 2010-11	Projection 2011-12	Projection 2012-13
Non-development	12,24,32	13,73,67	14,86,00	15,61,50	15,89,45
Development	3,93,00	3,81,00	3,67,00	0	0
Total	16,17,32	17,54,67	18,53,00	15,61,50	15,89,45

### 5.3.5 List of Projects, Programmes and Operational Units

Operational Unit/Project/Programme	Related Key Activity
Operational Unit: (Non-development)	
Bangladesh Forest Research Institute	1-5
Approved Projects:	
1. Development and Informing of Innovated Technologies Relating to Forest	4-5
2. Transfer of Technologies in Bamboo Shoot Production, Processing and Marketing from China to Bangladesh and Sri Lanka	1-3
3 Market Development of Bamboo and Ratan Products	3
Unapproved Project:	
1. Re-organizing and Modernising Bangladesh Forest Research Institute	3
2 Development and Management of Forest in Coastal Areas of Bangladesh for Adaptation to Climate Change	3

## 5.4 Bangladesh National Herbarium

**5.4.1 Recent Achievements:** During the last three years, scientists of the national herbarium undertook surveys in different areas of 21 districts and collected about 3,900 specimens of trees and through taxonomic studies, identified about 1,500 varieties of trees. Specimens of these identified varieties of trees were preserved in the herbarium cup board. Under the Taxonomic Studies-1; Flora of Bangladesh Gi Fasicle no 56,57,58 were published and Fiscle No 1, 2, 3 and 5 were reprinted. One research article on a check list for the Lauraceae Family and one on the "Borai" (Ziziphus sp) variety of trees was published in the Bangladesh Journal of Plant Taxonomy. A data base of 4,100 plant specimens was prepared

### 5.4.2 Key Activities, Outputs related to the Activity and related Strategic Objectives

Key Activity	Outputs related to the Activity	Related Strategic Objectives
1. Botanical Survey, Plant Identification and Plant	<ul style="list-style-type: none"> <li>Identification of 3,000 plants samples</li> </ul>	

Key Activity	Outputs related to the Activity	Related Strategic Objectives
Specimen Preservation programme implementation	<ul style="list-style-type: none"> <li>Collection and preservation of 4,500 plant specimen</li> <li>Preparation of data base on 3000 plants</li> </ul>	2

### 5.4.3 Output Indicators and Targets

Output Indicators	Unit	Actual 2008-09	Target 2009-10	Revised Target 2009-10	Medium Term Targets		
					2010-11	2011-12	2012-13
1. Plant specimen collection and preservation	Number	1,450	1,500	1,500	1,500	1,500	1,500
2. Plant Identification	Number	1,000	1,000	1,000	1,100	1,200	1,200
3. Flora of Bangladesh Publication	Number	new-02 Re-print-4	03	03	03	03	03
4. Preparation of herbarium data base	Number	1,000	1,200	1,200	1,100	1,200	1,200

### 5.4.4 Forward Budget Estimates

(Taka in Thousand)

Particulars	Budget 2009-10	Revised 2009-10	Budget 2010-11	Projection 201-12	Projection 2012-13
Non-development	98,60	1,33,88	1,25,73	1,23,98	1,27,59
Development	0	0	0	0	0
Total	98,60	1,33,88	1,25,73	1,23,98	1,27,59

### 5.4.5 List of Projects, Programmes, and Operational Units

Operational Unit/Project/Programme	Related Key Activity
Operational Unit (Non-Development)	
Bangladesh National Herbarium	1
Unapproved Projects	
1. Red Data Book of Vascular Plants of Bangladesh, Volume-II	1