

**IMPLEMENTATION OF NATIONAL BIOSAFETY  
FRAMEWORK OF BANGLADESH PROJECT  
(AN UNEP-GEF FUNDED TECHNICAL SUPPORT  
PROJECT)**

**PROJECT BRIEF**

জীব  

নিরাপত্তা

**Biosafety**



**Implemented by  
Department of Environment,  
Ministry of Environment and Forest,  
Government of the People's Republic of Bangladesh.**

**Introduction**

Bangladesh as signatory of Cartagena Protocol on Biosafety to the Convention on Biological Diversity is committed to conserve its indigenous biodiversity, the traditional knowledge and practices. Implementation of NBF is a must to ensure conservation and sustainable use of biological diversity of endemic species and unique ecosystems in Bangladesh. Furthermore, the potential of biotechnology must be fully exploited by the country, while taking into account the possible impact on human health and the environment, especially impact on biodiversity. Being a party to the Cartagena Protocol on Biosafety, Bangladesh is internationally committed to develop and implement the

Biosafety regulatory regimes. Bangladesh developed its National Biosafety Framework in 2007 with the technical assistance of UNEP-GEF. NBF provides only the basic elements of biosafety systems to be implemented for the sake of conservation of biodiversity and prevent potential risks to human health.

In the absence of biosafety infrastructure and statutory regulations there is every possibility that valuable crop biodiversity might be disappeared due to intensification of modified crops. The main constraints to implement Biosafety regulatory regime in Bangladesh are the absence of statutory rules-regulations, well-managed infrastructures, adequate laboratories, and above all, insufficient trained manpower on risk assessment and



management of GMOs. To overcome these constraints, GEF-assistance for this project to implement the NBF has been considered as an urgent step by Bangladesh.

To this end, implementation of the National Biosafety Framework (NBF) is very crucial, which would be accomplished through development of regulations and soft laws, capacity building in technical training, improved infrastructure for monitoring and detection of LMOs, and enhancing public awareness and capacity to a level of active participation in decision-making on LMOs notifications.

The implementation of NBF would be a timely step that would serve the greater interest of the nation in terms of operationalized system of

Biosafety. To ensure harmonization of Biosafety Standards and regulatory systems at the regional level, collaboration and networking for the exchange of technological and technical aspects of biosafety management have further to be strengthened for furthering the implementation of the Cartagena Protocol. To this end, the implementation of project would undertake effective initiatives towards strengthening regional cooperation of SAARC and ASEAN countries.

The project would be implemented towards enhancing our capacity to address biosafety issues of LMOs in Bangladesh.



## Project Highlights

### Executive Agency

Department of Environment,  
 Ministry of Environment and  
 Forest,  
 Government of the people's  
 Republic of Bangladesh.

### Duration of the Project

2013-2017

### Fund Allocation by UNEP- GEF

US\$. 884.09 million.

### Objective

The project objective is: "To  
 have a workable and dynamic  
 NBF in place in Bangladesh  
 that will contribute to the  
 conservation and sustainable  
 use of biodiversity by enabling  
 full implementation of the CPB  
 and national biosafety  
 regulations.

## Thrust Areas

Development of National  
 Biosafety Policy and Updating  
 Biosafety Rules, Guidelines &  
 Framework.

Development & Promulgation  
 of Regulatory Regime on  
 Biosafety.

Enhancing Human Capacity  
 on Biosafety at the  
 institutional, individual and  
 systemic levels of Bangladesh  
 through training, workshop  
 etc.

Functional Administrative  
 System for handling &  
 notification on GMOs/LMOs

Monitoring & Enforcement

Public Awareness, Education  
 & Enhancing public  
 participation

Regional collaboration &  
 networking for harmonization  
 of Biosafety Standards.

Project Monitoring &  
 Evaluation and Audit



## Expected Output

1. Biosafety policy, enforcement & monitoring manuals will be developed.
2. Biosafety Guidelines will be updated.
3. NBFoperation will beenhanced.
4. Legal and regulatory framework on biosafety will be enacted and strengthened.
5. Regulatory regime on management of LMOs will be enforced by appropriate institutions.
6. Organizational set-up infrastructure and logistics for handling application on any use or release of LMOs will be strengthened.
7. Comprehensive Monitoring and Enforcement system will be in place to handle all uses of LMOs.
8. Public Awareness and participation in decision making on LMOswill be increased.
9. Risk assessment and risk management will be carried out in a harmonized and regionally collaborative fashion



## Development of National Biosafety Policy and Updating Biosafety Rules, Guidelines and Framework

At present there is no stand-alone national policy on biosafety in Bangladesh to deal with the issues related to the Protocol in a comprehensive way. However, there are some existing policies in relevant sectors, which reflect on some of the issues in the Protocol in a sporadic way, and these are briefly touched upon below. The policies include: (i) Environment Policy, 1992 (ii) National Biodiversity Strategy and Action Plan for Bangladesh, 2004 (iii) National Biotechnology Policy, 2006 (iv) Biosafety Guidelines of Bangladesh, 2006 (v) National Guidelines for Fish and Animal Biotechnology, 2006 (vi) National Guidelines on Medical Biotechnology, 2006, (vii) National Policy Guidelines on Crops and Forests, 2012.

A separate national biosafety policy is needed covering all relevant sectors. The policy will address national aspiration in conformity with international protocols. The policy includes ensuring adequate level of protection in the field of the safe transfer, handling and use of GMOs that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health.

## Development & Promulgation of Regulatory Regime on Biosafety.

Being a party to the Cartagena Protocol on Biosafety, Bangladesh is internationally committed to develop and implement the Biosafety Regulatory regimes. Bangladesh has already developed its National Biosafety Framework having the technical assistance of UNEF-GEF. However, NBF provides only the basic



elements of biosafety systems to be implemented in order to conserve biodiversity and prevent potential risks to human health. Inadequate facility of biosafety infrastructure and statutory regulations there is every opportunity that valuable crop biodiversity might disappear due to intensification of modified crops.

The main constraints to implement Biosafety regulatory regime in Bangladesh are the insufficient statutory rules-regulations, well-managed infrastructures, adequate laboratories and above all, lack of trained manpower to conduct risk assessment and management of LMOs.

To overcome these constraints, GEF-assistance has been provided for drafting and upgrading regulations and soft laws, capacity building in technical training, improved infrastructure for monitoring and detection of LMOs, and enhancing public awareness and capacity to a level of active participation in decision-making on LMOs notifications.

This project will therefore, pave the way to institutionalize the Biosafety regulations and strengthen infrastructural facilities for risk assessment and management of LMOs including decision-making, which would provide global environmental benefits on the safe use of modern biotechnology with concomitant conservation the endemic and unique biodiversity of Bangladesh.

## **Administrative System for Handling & Notification on LMOs.**

Biosafety systems in Bangladesh are being administered through involvement of various ministries and the associated departments working under those ministries. Various committees like NCB, BCC, NTC, IBC, and FBC, etc. entities are mainly responsible for ensuring Biosafety at respective organizational levels. Ministry of Environment and Forest being the NFP and NCA



to the Cartagena Protocol is the focal ministry to enforce biosafety regulatory systems and making oversight on GMO related overall biosafety activities. Ministry of Environment and Forests has already enacted the Biosafety Rules of Bangladesh which shall be used to enforce regulatory regime on Biosafety in Bangladesh.

The Department of environment under the Ministry of Environment and Forests (National Competent Authority) is responsible for operations of the "Implementation of NBF" project in Bangladesh. The DoE will coordinate and manage overall activities undertaken during the project implementation period and also responsible for preparation of all reports to be communicated to UNEP and NCA (Ministry of Environment and Forests). A Project Steering Committee (PSC), headed by the Secretary, Ministry of Environment and Forests will oversee the progress of the project. The Project Director will be responsible for overall project

coordination and management. Bangladesh signed the Cartagena Protocol on 24 May 2000 and ratified it on 5 February 2004. According to Article 36 (4) of the Convention, the Protocol came into force for Bangladesh on 5 May 2004, on the ninetieth day after the date of deposit of the instrument of ratification.

The Department of Environment (DoE) under the Ministry of Environment and Forests (MOEF) has already developed the National Biosafety Framework, Biosafety Guidelines, Biosafety Rules, and other relevant documents which provide a basis for administrative system and regulatory regime to be developed for adequate level of protection in the environment and human health against uses of GMOs resulting from modern biotechnology. During the implementation of this project the regulatory documents will be developed and updated the present documents for safe management of and handling of LMOs.





## Monitoring & Enforcement

The impediments of implementing the Biosafety regulatory regime in Bangladesh are the well-managed infrastructures, adequate laboratories and insufficient trained manpower to conduct risk assessment and management of LMOs.

To overcome these constraints, GEF-assistance will be utilized for drafting of supporting regulations, capacity building in technical training, improved infrastructure for monitoring and detection of LMOs, and enhancing public awareness.

Unless prevention/mitigation measures are in place urgently, there is a possibility that biotechnology may be used without safeguards to address potential harm to wild and cultivated species or overall conservation of biodiversity. Since adoption of GM-crops is imminent in Bangladesh, measures must be established urgently to address this

eventuality to ensure the conservation and sustainable use of biodiversity and contribute to environmental benefits. The implementation of NBF would be a timely step that would serve the greater interest of the nation in terms of operationalized system of Biosafety.

Laboratory facilities in institutions should be equipped to carry out biosafety related tests for compliances, monitoring and enforcement purposes.

## Public Awareness, Education & Communication

Bangladesh as a Party to the Protocol needs to comply Article 23(2) and 23(3) of the protocol which implies that the party shall consult the public in the decision making process regarding GMOs and shall endeavor to inform the public about means of public access to the BCH. It is also be noted that



Bangladesh is one of the world's richest storehouses of genetic diversity. Hence, biosafety issue regarding the use of GMOs is a great concern to environmentalists, consumers and the general public. People are concerned about the health hazards originating from plants, animals and other biotechnological sources. Since the issue is new, initiatives would be undertaken from the very beginning on public awareness, education and people's participation.

In this regard it is very logical that the stakeholders related to all sort of use/handling of GMOs should be identified so that they can take part in the decision making. It is proposed that the DoE should form a core group of scientists and the group to be led by the DG, DoE. The Department of Agricultural Extension (DAE), however, has personnel down to the block or village level and there is systematic way of sending messages to the farmers through a number of tiers. The DLS and DoF have also personnel up to Upazila

(sub-district) level. The Ministry of Commerce (MoC), Ministry of Law (MoL), Ministry of Food (MoF), Ministry of Health and Family Welfare (MoHFW) should also come up to participate in generating, assembling, disseminating information and decision making on GMOs.

For creating awareness among people, giving them information on biosafety and for mass communication, the following activities will be undertaken.

### **Building public awareness**

- Specific media programs/publications (leaflets, and posters).
- Public education/guidance offices in government departments.
- NGOs.
- Publications of professional and civil society organisations.
- Labeling, where feasible and practical.



### Using various methods for public education

- Publications viz. Monthly magazines, booklets, and bulletins.
- TV and radio.
- Seminars/Workshops.
- School curricula.
- Exhibitions.
- Links on ministry website to approve education sites.

### General communication

Using the existing channels that are available in the country can provide information on biosafety. The following channels are useful:

- The national information centre.
- Biosafety Cell of DoE; such biosafety cell may also be established in other concern ministries and organisations for dealing with GMOs.
- Official Gazette.
- Media announcement Providing a response button on a website.

## Regional Collaboration and Networking for harmonization of Biosafety Standards

Genetic resources of the country once conserved will make tremendous global benefit in terms of preventing extinction of traits those are valuable for the welfare of mankind.

To ensure harmonization of Biosafety Standards and regulatory systems at the regional level, collaboration and networking for the exchange of technological and technical aspects of biosafety management have further to be strengthened for furthering the implementation of the Cartagena Protocol. To this end, the implementation project would undertake effective initiatives towards strengthening regional cooperation of SAARC and ASEAN countries. The Project would be implemented towards implementation of NBF to enhance our capacity to address



Biosafety issues of LMOs in Bangladesh.

## **Project Monitoring, Evaluation & Audit**

The project will follow UNEP-GEF standard monitoring, reporting and evaluation processes and procedures. The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Day-to-day project monitoring is the responsibility of the project management team but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Director to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Department of Environment will be liable to produce monthly and quarterly progress report on implementation of the project components to the Cabinet Division, Planning Ministry, IMED, ERD and to the Ministry of Environment and Forests. At the end of the project a project completion report will be produced to fulfil the requirement of IMED.

