



# UNITED NATIONS ENVIRONMENT PROGRAMME

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 Програма Організації Об'єднаних Націй по оточуючій середі    برنامج الأمم المتحدة للبيئة

联合国环境规划署



## PROJECT DOCUMENT

### SECTION 1: PROJECT IDENTIFICATION

<b>1.1</b>	<b>Project title:</b>	Support for the Implementation of the National Biosafety Framework of the Republic of Turkey	
<b>1.2</b>	<b>Project number:</b>	GFL/ PMS:	
<b>1.3</b>	<b>Project type:</b>	FSP	
<b>1.4</b>	<b>Trust Fund:</b>	GEF	
<b>1.5</b>	<b>Strategic objectives:</b>		
	GEF strategic long-term objective:	BD3	
	Strategic programme for GEF IV:	SP6	
<b>1.6</b>	<b>UNEP priority:</b>	Environmental governance	
<b>1.7</b>	<b>Geographical scope:</b>	Global	
<b>1.8</b>	<b>Mode of execution:</b>	External	
<b>1.9</b>	<b>Project executing organization:</b>	Ministry of Agriculture and Rural Affairs (General Directorate of Agricultural Research)	
<b>1.10</b>	<b>Duration of project:</b>	36 months Commencing: January 2011 Completion: December 2013	
<b>11.1</b>	<b>Cost of project</b>	<b>US\$</b>	<b>%</b>
	Cost to the GEF Trust Fund	<b>542,650</b>	<b>42.1</b>
	Co-financing		
	Cash		
	Ministry of Agriculture and Rural Affairs	550000	
	<i>Sub-total</i>	<b>550000</b>	<b>42.5</b>
	In-kind		
	Ministry of Agriculture and Rural Affairs	200000	
	<i>Sub-total</i>	<b>200,000</b>	<b>15.4</b>
	<b>Total</b>	<b>1,292,650</b>	<b>100</b>

### **1.12 Project summary**

The project aims at building capacity to implement National Biosafety Framework. Thus, the objective of the project is effective and full implementation of National Biosafety Framework (NBF) that is in line with national development priorities, Cartagena Protocol and other international obligations. The goals of the projects are:

- Analyzing the stakeholders and gaps with regard to implementation of NBF of Turkey,
- Enforcement and mandating of regulatory biosafety regime,
- Establishment of functional system for handling of requests, risk assessment, decision-making and risk management of LMOs,
- Establishment of monitoring and inspection system for LMOs, and
- Establishment of functional system for public awareness and participation for biosafety.

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## ACRONYMS AND ABBREVIATIONS

BCH	Biosafety Clearing-House
CA	Competent Authority
CBD	Convention on Biological Diversity
CHM	Clearing-House Mechanism
COP	Conference of Parties
CPB	Cartagena Protocol on Biosafety
GDAR	General Directorate of Agricultural Research
GDAPD	General Directorate of Agricultural Production and Development
GDPC	General Directorate of Protection and Control
GDP	Gross Domestic Product
GEF	Global Environment Facility
GMP	Genetically Modified Plant
LMO	Living Modified Organism
MARA	Ministry of Agriculture and Rural Affairs
MEF	Ministry of Environment and Forestry
MOP	Meeting of Parties (of the Cartagena Protocol on Biosafety)
NBC	National Biosafety Committee
NBF	National Biosafety Framework
NBSAP	National Biological Diversity Strategy and Action Plan
NCC	National Coordinating Committee
NGO	Non-Governmental Organization
SAC	Scientific Advisory Committee
TGNA	Turkish General National Assembly
UNEP	United Nations Environment Programme

## SECTION 2: BACKGROUND AND SITUATION ANALYSIS (BASELINE COURSE OF ACTION)

### 2.1. Background and context

1. Article 2 of Cartagena Protocol on Biosafety states that “Each Party shall take necessary and appropriate legal, administrative and other measures to implement its obligations under this Protocol.” and “The Parties shall ensure that the development, handling, transport, use, transfer and release of any living modified organisms are undertaken in a manner that prevents or reduces the risks to biological diversity, taking also into account risks to human health.” Therefore, Parties to the Protocol should have sufficient capacity for handling of notifications in the scope of the Protocol, risk assessment, risk management and socio-economic consideration, to prevent unintentional and/or illegal transboundary movements, to implement emergency measures, to comply with the obligations on handling, transport, packaging and identification, to participate in biosafety clearing-house mechanism, for effective sharing of relevant information, to raise awareness of public on biosafety issues and ensure their participation into relevant processes.
2. As being a Party to the Convention on Biological Diversity since 14 May 1998 and participant of the process of preparations of the Cartagena Protocol on Biosafety since 1998, Republic of Turkey has signed the Protocol on 24 May 2000 during the 5<sup>th</sup> COP to the CBD and adopted it on 17 June 2003 (act 4898, OJ 24 June 2003). The Ministry of Agriculture and Rural Affairs (MARA), General Directorate of Agricultural Research has been appointed as national focal point for the Protocol.
3. While Turkey has not issued import or domestic production of any transgenic seed for environmental release yet, the pending applications received in 1998 have being evaluated under the communiqué of MARA on field trials of cultivated transgenic plants, but could not be finalized due to the legislative, administrative, institutional and technical gaps on biosafety. Therefore, Turkey participated to the UNEP/GEF project on Development of National Biosafety Frameworks and executed the project between 2002-2005. The main components of the National Biosafety Framework are biosafety policy, regulatory regime, system to handle notifications or requests for authorizations, monitoring and enforcement, mechanisms for promoting and facilitating public awareness, education and participation. These components were reflected to the draft biosafety law which was also prepared during the project. The priorities as determined by the NBF were as follows;
  - Measures to protect genetic diversity against the adverse affects of LMOs in Turkey,
  - Enforcement of law on biosafety and establishment of relevant administrative and institutional system,
  - Building capacities of laboratories and establishment of network of accredited laboratories to undertake analysis for risk assessment, risk management, controls and inspections, including custom and border controls,
  - Building technical and human resource capacities of institutions, both in quantity and quality, to implement the emergency measures in response to unintended release of LMOs, accidents or unforeseen events during transits of LMOs, to monitor LMOs in the environment and in the market, to undertake controls, inspections and research studies on biosafety,
  - Raising awareness of public on the issues relevant to biosafety.
4. Since the capacity is still not enough to protect genetic diversity against the adverse affects of LMOs, deliberate environmental release of LMOs is not allowed up to date. The draft law on biosafety has been adopted by the TGNA on 18 March 2010 and will enter into force by 26 September 2010. Administrative and institutional arrangements in line with the Biosafety Law

and the Protocol still pending and there is a need to strength human resources capacity for effective implementation. Capacities of two food control laboratories have been built up to be able to detect LMOs, but still there is no enough capacity to manage both intentional and unintentional/illegal introduction of LMOs. The awareness of the public about LMOs has been substantially raised, but disinformation became an important problem due to improper programmes of some NGOs, private sector and the media.

5. Turkey is an eligible Party to benefit from GEF allocations in the biodiversity focal area, including biosafety.

## **2.2. Global significance**

6. Turkey is one of the fortunate countries in the world as a country possessing vital resources for people's food security and has the responsibility to protect and use this important wealth rationally for the welfare of the future generations. With three biogeographical regions called Euro-Siberian, Mediterranean and Irano-Turanian and their transition zones Turkey has variety of forest, mountain, steppe, wetland, coastal and marine ecosystems. This extraordinary ecosystem and habitat diversity has produced considerable species diversity and endemism. The number of seed plant species identified in Turkey is currently about 9,200. The number of species and sub-species taxa has reached 11,000. This number increases every day with the identification of new species. In its geographical zone, Turkey is one of the richest countries in endemic plants, 34 % of the species in Turkey (3,150) are endemic. This high rate of endemism makes Turkey interesting in terms of seed plants and maintains its character as a centre of attraction in this regard.

7. Turkey's genetic diversity becomes important with plant genetic resources in particular because Turkey is located at the intersection of the Mediterranean and Near Eastern gene centres. These two regions have a key role in the emergence of cereals and horticultural crops. In our country, there are 5 micro-gene centers in which more than 100 species display a wide variation and which are the origin or centre of a large number of important crop plants and other economically important plant species such as medical plants. These centers offer very important genetic resources for the future sustainability of many plant species cultivated across the world. In terms of animal genetic resources, it is agreed that many domestic animal races were originally bred in Anatolia as a result of its location and spread from here to other regions of the world.

8. Therefore, taking into consideration the biological diversity of Turkey, in particular genetic centers of origin and diversity of genetic resources important for food and agriculture, biosafety has utmost importance for biodiversity and food security both at national and global levels.

9. Consequently, the unregulated introduction of products of modern biotechnology could lead to loss of wild and agricultural biodiversity and thus an operational biosafety framework with adequate capacity is required to ensure that the potential benefits of modern biotechnology can be captured in a fully legal and transparent manner.

## **2.3. Threats, root causes and barrier analysis**

10. Risks of LMOs on biological diversity are widely recognized by the adoption of Cartagena Protocol on Biosafety. There is a threat of contamination of centres of genetic origin and diversity in the case of unregulated release of LMOs in the environment. As a country having genetic centres of origin and diversity of crops, adverse effects of LMOs constitutes substantial threat on conservation and sustainable use of biological diversity in Turkey. Root causes of the threat arise from the insufficient legislative, administrative, institutional and technical capacity to regulate introduction of LMOs and to prevent unintentional and/or illegal

transboundary movements of them as well as low level of public awareness and participation in biosafety issues. Main barriers on setting up effective biosafety system are insufficient human resources both in quality and quantity including administrators participating in the decision-making and enforcement process, lack of equipments in institutions to carry out identification, inspection and monitoring and ineffective clearing-house mechanism.

#### **2.4. Institutional, sectoral and policy context**

11. Transboundary movements of living animals and plants are subject to authorization by The Ministry of Agriculture and Rural Affairs (MARA) in the context of current legislation. Therefore, MARA has appointed as a primary responsible institute in Turkey for biosafety. The MARA has also duties relevant to biological diversity, in particular management and sustainable use of natural resources, ex-situ conservation of plant species and agricultural research including genetic diversity. Those duties and responsibilities of the MARA which concern biological diversity are performed by its central and provincial organizations through the General Directorate of Agricultural Research (GDAR), the General Directorate of Protection and Control (GDPC) and the General Directorate of Agricultural Production and Development (GDAPD), which are among its main service units. Different departments of MARA regulate the trade, production, processing, licensing, inspection and control of agricultural enterprises for seed, feed and food, for veterinary products and pharmaceuticals by various acts. In addition to agricultural research and development activities, the General Directorate of Agricultural Research also functions as the national focal point for Cartagena Protocol on Biosafety, access to genetic resources and benefit-sharing under the CBD.
  
12. It is the responsibility of the MEF to formulate the policies concerning the conservation and sustainable use of the environment and biological diversity, to designate and manage protected areas under various status, to develop and implement plans and programmes, to carry out activities in this scope and to ensure coordination among different institutions. The Ministry's unit with primary authority and responsibility for the conservation and sustainable use of biological diversity is the General Directorate of Nature Conservation and National Parks, which is also the CBD focal point.
  
13. Undersecretary of Foreign Trade determines and executes foreign trade policies. All transits are subject to authorization and control of Undersecretary of Customs. Licensing and authorization of human pharmaceuticals is undertaken by Ministry of Health. The Scientific and Technological Research Council of Turkey and universities as well as the research institutes of the MEF and the MARA take part in the research activities relevant to biological diversity and biosafety.
  
14. In Turkey, there are many national and local non-governmental organizations contributing on a voluntary basis to the conservation and sustainable use of biological diversity, in particular public awareness- raising activities.
  
15. As the competent agency in the preparation of national plans and programmes, the Undersecretariat of the State Planning Organization ensures the formation of environmental policies and planning of investments together with other sectors in the framework of development plans.
  
16. In a sectoral context, agriculture is a main sector relevant to biosafety due to both rich agricultural biodiversity of Turkey and agricultural products of modern biotechnology subject to transboundary movement. According to the 2004 data, the agricultural sector accounts for 11.2 % of GDP, industry for 24.9 % and commerce for 20.6 %. Despite its low share in GDP, the agricultural sector employs 40 % of the actively working population, and it is the sector with the lowest income

per capita. The sector that has displayed the fastest growth in recent years and that has the highest average income per capita is the service sector.

17. Due to the biological diversity value that rural areas possess, their socioeconomic characteristics and needs have a special importance in determining the principles of conservation and sustainable use. In Turkey, about 65 % of the population lives in cities and 35 % in the rural sector. However, it is estimated that another 5 % of the rural population has joined the urban population since 2000. This change in the structure of population is due both to rapid urbanization and to migration from the village to the city.
18. Although the agricultural sector, which has been the main component of the economy for many years in the past, has witnessed a steady fall in its share in GDP over the periods, it is still an important source of economic activity compared with other sectors, providing 61.4 % of employment in rural areas. In this context, the agricultural sector remains the basic driving force in rural development efforts as well as being an important element of overall national development. In addition, agriculture is not only an economic activity as such but also a social process of regional, cultural and ecological importance. Since agricultural production in Turkey is carried out in small enterprises using rather low agricultural inputs, it also provides a suitable environment for the conservation of wild species through the farmer in the rural sector. This structure however also constitutes a risk of uncontrolled and fast spread of traits of LMOs in the environment.
19. As the biosafety became a concern of diverse groups and sectors, the stand-alone biosafety policy developed in Turkey, which gives priority to the protection and sustainable use of biological diversity and environment and protection of human, animal and plant health; and, foresees the establishment, improvement and implementation of the biosafety system to regulate, inspect and monitor the activities involving the LMOs and products thereof.
20. The main principles of the biosafety system are the precautionary principle, case-by-case evaluation and strategic long-term risk assessment of LMOs, including impacts on socio-economic structure.

## **2.5. Stakeholder mapping and analysis**

21. National stakeholders of biosafety are The Ministry of Agriculture and Rural Affairs, Ministry of Health, Ministry of Environment and Forestry, Ministry of Justice, Ministry of Industry and Trade, Undersecretary of State Planning Organization, Undersecretary of Foreign Trade, Undersecretary of Customs, Turkish Patent Institute, The Scientific and Technical Research Council of Turkey, Universities, Chambers, NGOs and private sector.
22. MARA with its different departments with various mandates is an executing agency and described under section 2.4.
23. Undersecretary of State Planning Organization safeguards the correspondence of national policies, plans and programmes and mobilization of internal financial resources. Therefore SPO has a key role in effectiveness of the project and sustainability of the outcomes.
24. MEF has interests both in terms of conservation and sustainable use of biological diversity and in terms of registration of production materials of forest trees. Therefore MEF has two members in the Biosafety Committee, which is a decision-making body in accordance to Biosafety Law.

25. Other members of the Biosafety Committee are Ministry of Health, Ministry of Industry and Trade, Undersecretary of Foreign Trade, one representative from university and one representative from chambers.
26. The Scientific and Technical Research Council of Turkey, universities and research institutes are other key stakeholders due to their role in risk assessment procedures.
27. Undersecretary of Customs and Ministry of Justice have crucial role in preventing illegal transboundary movements and enforcement of the Biosafety Law.
28. Chambers and NGOs have primary role for effectiveness of public awareness and participation activities.
29. At last but not least private sector is major stakeholder group who will be affected by the implementation of the Protocol and Biosafety Law.

## 2.6. Baseline analysis and gaps

30. NBF of Turkey and Law on Biosafety provides a political and legislative baseline for biosafety. However effective implementation of the Law requires rising of understanding of administrators taking part in decision-making, controls and inspections. Jurists also required to be informed about biosafety issues for effective implementation of the Protocol and the Law.
31. Baseline for the system for handling requests, risk assessment, decision-making and risk management is two functional laboratory, three laboratory with a potential to be included in the network, three research institute having experience on field trials of GMPs, existing personal of MARA, trained 64 personal of institutes during the UNEP/GEF development project and national project, experience gained during the implementation of Directive on Field trials of Transgenic Crops. Ankara Food Control Laboratory, existing personal of MARA and laboratories of Custom Control constitutes a baseline for monitoring and inspection system. However there are gaps in terms of technical capacity and human resources to achieve a functional system. Institutional gaps exist for identification and detection of LMOs, implementation of standard methods and verification of results.
32. Public awareness action plan and publications and deliberations of UNEP/GEF NBF development project and national project provide baseline for public awareness. However national biosafety CHM is not operational due to technical and financial constrains.

## 2.7. Linkages with other GEF and non-GEF interventions

33. Turkey executed the UNEP/GEF Project on Development of Biosafety Frameworks between 2002-2005 which were also supported by State Planning Organization from internal resources. National Biosafety Framework was prepared at the end of the development project including draft law on biosafety and the action plan to ensure follow-up of the outputs of the project. The plan includes steps toward the finalization and approval of the draft law on biosafety, public awareness studies and the implementation of the NBF. Actions and activities given below are the main requirements for implementation of the NBF:
  - Preparation of regulations under the biosafety law
  - Capacity building to meet risk assessment and management requirements including training of technical staff and establishment of laboratories and reference laboratory
  - Establishment of Biosafety Clearing House (*BCH*).
34. In spite of submission of a project proposal, Turkey could not benefit from the UNEP/GEF project for development of national Biosafety Clearing House.

35. The current project constitutes a significant contribution to national effort to meet requirements to implement NBF as outlined above and establishment of biosafety CHM at national level.

### SECTION 3: INTERVENTION STRATEGY (ALTERNATIVE)

#### 3.1. Project rationale, policy conformity and expected global environmental benefits

36. Turkey has globally important components of biological diversity and genetic centers of origin and diversity of genetic resources important for food and agriculture. Therefore, biosafety has utmost importance for food security both at national and global levels. The unregulated introduction of products of modern biotechnology could lead to loss of wild and agricultural biodiversity and thus an operational biosafety framework with adequate capacity is required to ensure that the potential benefits of modern biotechnology can be captured in a fully legal and transparent manner.

37. The project belongs to the GEF Biodiversity Focal Area. Biosafety is one of the priority area of GEF-4 Strategic Programme under SO3: To safeguard biodiversity stating that “In order to safeguard biodiversity, countries require management systems and frameworks that have the capacity to detect, exclude, eradicate, control and effectively manage introduced organisms that pose a risk to biodiversity. Through this strategic objective, GEF will help build country capacity to implement the Cartagena Protocol on Biosafety.” Therefore, “Building Capacity for the Implementation of the Cartagena Protocol” is included as SP6 of GEF-4 Strategic Programme. Furthermore, GEF Council adopted the GEF Strategy for Financing Biosafety ([GEF C.30/8/Rev.1](#)) to help build the capacity of eligible countries to implement the Cartagena Protocol on Biosafety through activities at the national, sub-regional and regional levels.

38. [Capacity building](#) is a key prerequisite for the effective implementation of the Cartagena Protocol on Biosafety (CPB). In order to be able to implement their obligations, Parties to the CPB need appropriate institutional mechanisms and infrastructure, well-trained human resources, adequate funding as well as easy access to relevant information. At its first meeting, the Conference of the Parties serving as the meeting of the Parties to the Protocol on Biosafety, adopted in annex 1 of [decision BS-I/5](#), an Action Plan for Building Capacities for the Effective Implementation of the Cartagena Protocol on Biosafety. At its second meeting, COP-MOP in [decision BS-II/3](#) adopted terms of reference for a comprehensive review of the Action Plan and invited Governments and relevant organizations to submit information regarding the progress and effectiveness in their implementation of the Action Plan as well as suggestions on the desired revisions. The Secretariat prepared, on the basis of the submissions received, a synthesis paper including strategic recommendations for a possible revision of the Action Plan. At its third meeting, COP-MOP in [decision BS-III/3](#) adopted an updated version of the Action Plan. Therefore the project is in line with GEF strategies and CPB priorities.

#### 3.2. Project goal and objective

39. The overall objective of the project is protection of biological diversity against possible adverse affects of LMOs by means of ensuring safe transfer, handling, use and transboundary movement of LMOs. To achieve overall objective, the project aims on building capacity in Turkey for effective and full implementation of National Biosafety Framework (NBF) that is

in line with national development priorities, Cartagena Protocol and other international obligations.

40. First goal of the project is identification of gaps and need for regional harmonization and consistency where there is potential for reciprocal (transboundary) movement as well as analysis of stakeholders who will take part on implementation of NBF. Second goal of the project is putting in effects the administrative and legislative system of biosafety to ensure protection of biological diversity and human health during the development, handling, transport, use, transfer and release of any LMOs. Third goal of the project is building institutional and human resource capacity for handling of requests for authorization, decision-making, risk assessment and risk management of LMOs. Forth goal of the project is building institutional and human resource capacity for effective monitoring, surveillance and inspection of LMOs to ensure compliance with consents and to prevent illegal and/or accidental releases and transboundary movements of LMOs. Last but not least, the fifth goal of the project is raising awareness of public on issues with regard to safe use of LMOs and building institutional and human resource capacity to ensure their participation into implementation of NBF including decision-making process on authorization of LMOs.

### 3.3. Project components and expected results

Project components	Project outcomes	Project outputs
Stocktaking & Biosafety Policy	Stakeholder and gap analysis with regard to implementation of NBF of Turkey prepared	Stocktaking report that analyses the current status of modern biotechnology and biosafety system
Regulatory Biosafety regime	Regulatory biosafety regime in place and legally mandated	Regulations under Biosafety Law approved
		National Biosafety Committee (NBC) established
		Competent authorities (CA) and Scientific Advisory Committee (SAC) mandated
		Manual on application procedure under the Law prepared
		Training for lawyers undertaken on legal aspects of transboundary movements of LMOs and products thereof and other aspects about use of LMOs
System for handling of requests for authorization (including administrative processing for risk assessment and informed decision-making), risk assessment and risk management	Functional system for handling of requests, risk assessment, decision-making and risk management of LMOs established	Human resources for handling of requests, risk assessment, decision-making and risk management of LMOs improved
		Guidelines, methodologies and manuals on risk assessment and risk management prepared

		Internet portal, which is accessible by risk assessors, decision-makers and risk managers, prepared and functional for data collection, input and analysis for risk management and risk communication purposes
		Criteria to consider possible socio-economical impacts determined and prioritized to be taken into consideration in the process of decision making
Follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections)	Monitoring and inspection system for LMOs established	Laboratories and research institutes mandated and strengthened for monitoring and inspection
		Ankara Control Laboratory accredited for detections of LMOs and detection methods standardized to be used in mandated laboratories
		Human resources for monitoring, inspections, border controls, emergency response and compliance to Biosafety Law and the Protocol improved
		Guidelines, methodologies and manuals on monitoring, inspections and emergency response prepared
		Registration system with unique identifiers to trace back LMOs established
Public awareness and participation	Functional system for public awareness and participation established for biosafety	Public awareness action plan of NBF updated
		Raise the public awareness through workshops, publications and trainings
		National BCH strengthened

### 3.4. Intervention logic and key assumptions

41. The administrative, legislative, institutional and human resource capacity is a key prerequisite for the effective implementation of NBF. Therefore project focus on building capacity of Turkey in biosafety, in particular by means of human resources, the fields of biosafety policy, regulatory regime, system for handling of requests for authorization, risk assessment and risk management, follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections) and public awareness and participation.

42. Participation of stakeholders and relevant institutions into the project activities and into the implementation of NBF has utmost importance in achievement of the overall objective of the project. Therefore, the effective cooperation and collaboration of relevant institutions during and after the project is one of the key assumptions of the project. The other key assumption of the project is the stability of the governmental support during and after the project to implement NBF.
43. First component of the project will serve detail analysis of stakeholders to ensure their active participation in the project and provide analysis of gaps and needs to implement NBF including gaps and needs for regional harmonization and consistency where there is potential for reciprocal (transboundary) movement. Inputs and contributions of relevant institutions are very important and it is assumed that the governmental and non-governmental institutions will give attention to the project and actively participate to the stocktaking exercise.
44. Second Component of the project is the regulatory biosafety regime. Although the Biosafety Law was adopted by TGNA recently, it will be enter into force on 26 September 2010. The effective implementation of the Biosafety Law depends on preparation of practical and understandable regulations, full understanding of the members of the Biosafety Committee of their responsibilities and issues related to biosafety, effective implementation of the provisions of the Law with regard to legal and criminal liability, and the clear notification procedures for applicants. Participatory approach is an important mechanism to achieve transparent, practical and effective regulatory regime. Working group meetings, workshops and trainings will be main tools to achieve second goal of the project. Therefore, it is assumed that the governmental and non-governmental institutions will give attention to the project and actively participate to the preparation of the regulations. It is also assumed that there will be political and administrative support for mandating of NBC, SAC and CA. Lawyers will have the key role in implementation of penalties in the scope of Biosafety Law, therefore the high level interest of the lawyers on the legal aspects of the biosafety issues and their active participation to the training course is another key assumption.
45. Third component of the project is establishment of the system for handling of requests, risk assessment, decision-making and risk management of LMOs. The effectiveness of the system depends on good understanding of the members of the NBC, CA and SAC of the procedures of the handling of requests, risk assessment, decision-making and risk management of LMOs; the capacity and sustainability of technical staff to assess and manage risks that may arise from LMOs and effective information sharing. On the other hand, as a provision of both the Protocol and the Law, socio-economic considerations required to be clarified for decision-makers for the purpose of transparency. The improvement of human resources through trainings and technical publications such as guidelines, methodologies and manuals; and the determination of socio-economic criteria through participation of stakeholders are main intervention logic to achieve functional system for handling of requests, risk assessment, decision-making and risk management of LMOs. The key assumptions in this context are effective institutional collaboration and participation in meetings and trainings; appropriate national and international consultancy for trainings and technical documents; and stable positions of trained personnel.
46. Forth component of the project is establishment of the system for monitoring and inspection for LMOs. This component is critical to prevent unintentional and/or illegal introduction of LMOs. Effectiveness of the monitoring and inspection system depends on institutional capacity and human resources. In this context, the training activities, such as training of trainers and training of key staff having role in inspections, border controls and judgment as

well as providing manuals and guidelines to them, have strategic importance to ensure sustainability of the human resources. Since most of the activities under 4<sup>th</sup> component of the project will be performed in the last year of the project, period of time to be required to purchase equipment, services and consultancy is assumed to be shortened sufficiently to achieve the fourth goal of the project. The appropriate international and national consultancy services are assumed to be available to prepare the guidelines, methodologies, manuals. It is also assumed that technical staff sufficiently involved in the training courses and relevant institutions collaborate effectively during and after the Project.

47. Fifth component of the project is establishment of the public awareness and participation for biosafety. Effectiveness of the system will be ensured by regular dissemination of informative materials, training of relevant personnel on execution of public awareness and participation activities, sustainable education system on biosafety, regular public awareness events and operational BCH. The assumptions in this regard are willingness of managers and technical staff to update and implement the action plan, growing interest of the public to the biosafety issues, presence of appropriate consultancy to strength national BCH and effective collaboration and participation of relevant institutions. It is assumed that there is no stakeholder group who will be opposing project activities.

### **3.5. Risk analysis and risk management measures**

48. Most important risk is mandating of trained technical staff in different positions other than biosafety facilities. Training of trainers and preparation of guidelines and manuals will provide sustainability of human resources in biosafety laboratories and institutes as included under 3<sup>rd</sup> and 4<sup>th</sup> components of the project.
49. Close collaboration and cooperation between institutions is important factor in the successful implementation of the project. In addition to Project Coordination Committee, the establishment and mandating of National Biosafety Committee, competent authorities and Scientific Advisory Committee as defined in the Law, training of Customs personnel on biosafety and informing of Judiciary officials on Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions, to facilitate dispute settlement, handling of court cases and enforcement of Biosafety Law will serve sustainability of institutional collaboration and cooperation both during and after the project.
50. The stability of the governmental support during and after the project to implement NBF is one of the key assumptions of the project. Therefore, political instability would pose important risk for success of the project as well. The activities under the fifth component of the project that will be executed starting from early stages of the project will contribute growing interest of the public to the biosafety issues. The public interest will be driving force for the governments and politicians to support implementation of NBF.

### **3.6. Consistency with national priorities or plans**

51. As being a Party to the Convention on Biological Diversity since 14 May 1998 and participant of the process of preparations of the Cartagena Protocol on Biosafety since 1998, Republic of Turkey has signed the Protocol on 24 May 2000 during the 5<sup>th</sup> COP to the CBD and adopted it on 17 June 2003 (act 4898, OJ 24 June 2003). The Ministry of Agriculture and Rural Affairs (MARA), General Directorate of Agricultural Research has been appointed as national focal point for the Protocol.

The National Biological Diversity Strategy and Action Plan (NBSAP) which was prepared in 2001 and updated in 2007 gives priority to biosafety and addresses the issue under the first and fourth goals. The Strategic action 1.3.5. under 3<sup>th</sup> objective of 1<sup>st</sup> goal of NBSAP is “*Increasing the effectiveness of the legal sanctions for the control of the entry/exit of the GMO's to Turkey, and the establishment of inspection standards and other related mechanisms including risk assessment and management*”. Under the 4<sup>th</sup> goal, 3<sup>th</sup> objective includes five strategic actions on biosafety<sup>1</sup>:

*“4.3. To prevent or minimize as far as possible any pressures on and threats to agricultural biological diversity which come from the genetically modified organisms (GMO's)*

*4.3.1. The promotion of researches with a view to unveiling methods for and approaches to the determination of the possible adverse impacts of GMO's on biological diversity*

*4.3.2. Setting up a national biosafety information management and monitoring system, which will allow the follow-up and determination of any GMO's entry to Turkey*

*4.3.3. The enhancement of the required legal, institutional and technical capacity for the regulation, control and monitoring of the activities related with GMO's and products thereof*

*4.3.4. The development and promotion of researches for the determination of the effects of alien species on the natural species and the methods for the prevention of such adverse effects*

*4.3.5. The collection of information about the invasive alien species which are introduced or most probably will enter to Turkey, and the monitoring of those species”*

52. The 9<sup>th</sup> Development Plan of Turkey<sup>2</sup>, which covers the period from 2007-2013, identifies in paragraph 161 that “*In order to protect and maintain the plant genetic resources and the biological diversity in Turkey, the need for establishing standards about the use and movement of Genetically Modified Organisms (GMO) and biotechnology products is still continuing.*” Therefore, biosafety has been included under the main objectives of the Plan as para. 460 which aim minimization of risks related to biosafety and GMOs in a manner of the integrated policy approach of the agriculture, environment and technology sectors.

53. On the other hand, policy of science and technology, which is determined by High Council of Science and Technology under the chairmanship of Prime Minister with participation of senior officials of related institutions and Ministries, supports the biotechnology with the provision of ensuring biosafety. Furthermore biotechnology and gene technology identified as one of the strategic technologies in The National Science and Technology Policy Strategy document which was prepared and published in 2004<sup>3</sup>.

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<sup>1</sup> National Biological Diversity Strategy and Action Plan of Turkey, [www.cevreorman.gov.tr](http://www.cevreorman.gov.tr), [www.cbd.gov.tr](http://www.cbd.gov.tr)

<sup>2</sup> Ninth development Plan of Turkey, OJ No 26215, 01.07.2006, [www.dpt.gov.tr/ing](http://www.dpt.gov.tr/ing)

<sup>3</sup> <http://www.tubitak.gov.tr/home.do?ot=1&sid=1005&pid=547>  
[http://www.tubitak.gov.tr/tubitak\\_content\\_files/vizyon2023/Vizyon2023\\_Strateji\\_Belgesi.pdf](http://www.tubitak.gov.tr/tubitak_content_files/vizyon2023/Vizyon2023_Strateji_Belgesi.pdf),

54. Agricultural policy of Turkey also identifies the biosafety as an important issue. Agricultural Council declaration of 2004 urges for the conservation of genetic resources and biological diversity and includes policy measures to benefit from opportunities of biotechnology with the provision of biosafety measures. Agricultural research programme reflects the outcomes of the Council decisions with regard to biotechnology and biosafety.
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55. In the scope of the legislation in force, the main regulation directly related with the biosafety is the “Communiqué on Field Trials of Cultivated Transgenic Plants” which is executed by MARA-GDAR and is in force since 1998. The objective of the communiqué is establishment of procedure and principles of field trials of genetically modified plants (GMPs) intended to agricultural production and it applies to all genetically modified plants whether imported or locally developed. The communiqué determines the procedure of and information to be submitted by applications, establishes the commission for evaluation of applications, authorizes GDAR to undertake field trials of GMPs by its research institutions and determines rules for field trials.
56. Current legislation was examined in the scope of the UNEP/GEF project on development of biosafety frameworks, in a participatory manner and it is agreed on that there is a need to prepare a law to address biosafety issues in Turkey. Therefore, draft law on biosafety have been prepared by a commission constituting representatives of related stakeholders.
57. The draft law on biosafety is based on the precautionary principle, protection of biological resources and human health and case-by-case scientific risk assessment. It regulates the import, placing on the market for environmental release and/or as food and feed or for processing, contained use, export and transit of GMOs and products thereof. It covers all kind of measures, including risk assessment, and regulations for the activities related to GMOs and products thereof, including, inter alia, research, development, use, production, consumption, processing, trade, marketing, transport, transit, handling, identification, documentation, packaging, labeling, storage, control, inspection, monitoring and traceability. The draft law on biosafety has been adopted by the TGNA on 18 March 2010 and will enter into force by 26 September 2010.

### **3.7. Incremental cost reasoning**

58. The National Biosafety Framework was completed in 2005. The administrative, legislative and institutional status and capacity needs of Turkey with regard to biosafety was determined at that time. Since then, there are some developments and changes in the administrative and institutional status. Therefore, component 1 (stocktaking exercise) is required to update information on stakeholders and gaps on biosafety for effective planning and implementation of the other components of the project.
59. The draft law on biosafety forms the basis for biosafety regulatory regime in Turkey. Adoption of the draft law was delayed because of the heavy agenda of the Turkish National General Assembly (TNGA). Although the Biosafety Law has been adopted by TGNA recently, it will only enter into force on 26 September 2010. The effective implementation of the Biosafety Law depends on preparation of practical and understandable regulations, full understanding of the members of the Biosafety Committee of their responsibilities and issues related to biosafety, effective implementation of the provisions of the Law with regard to legal and criminal liability, and the clear notification procedures for applicants. Without the project

and activities under component 2, there would be weak enforcement of the Law and its regulations which may result with the unregulated introduction of LMOs.

60. The institutional baseline for handling of requests, risk assessment, risk management, monitoring and inspections constitute two functional laboratories, plus three laboratories with the potential to be included in the biosafety network and three research institutes having experience on field trials of GMPs and for risk assessment of LMOs, and province directorates and control laboratories for regular food controls and inspections. Administrative and technical staff of MARA constitutes a basis to some extent for human resources for handling of requests, risk assessment, decision-making and risk management. However, the current administrative and technical capacity of both MARA and other related institutions is not enough to comply with the provisions of CPB and biosafety law. Without sufficient human resources in quality and in quantity, notifications could not be evaluated in an appropriate manner and the system could not be functional enough to respond notifications within appropriate time periods.
61. There are no approved LMOs in Turkey yet due to lack of functional legal and administrative biosafety system, therefore there is also no operational monitoring and inspection system for LMOs. A monitoring and inspection system is the priority issue for Turkey as it is a centre of genetic origin and diversity for crops in the region. The current technical capacity needs to be strengthened to meet fully the obligations of CBD and CPB as well as enforcement of biosafety law. Mandating of particular laboratories for LMO detection and training of technical staff on LMO detection and identification is a key capacity need to have effective monitoring and inspection system to regulate transboundary movements and environmental release of LMOs. Without the 4<sup>th</sup> component of the project, determination and handling of illegal movements and release of LMOs would not be possible and may result with damage on biodiversity.
62. The action plan on public awareness, education and participation was prepared in the scope of the NBF project, but could not be operational yet due to lack of resources. The current situation is not available for sustainability and effectiveness of public awareness and education on biosafety. The project would serve sustainable and effective system for public awareness, education and participation on biosafety. Without the 5<sup>th</sup> component of the project Turkey could not establish functional public awareness and participation system and clearing-house mechanism.
63. Consequently, baseline for biosafety would lead to illegal introduction of LMOs in Turkey, weak implementation of CPB and possible environmental damages due to weak monitoring and inspection.

<b>Project Component</b>	<b>Baseline</b>	<b>Alternative</b>	<b>Increment</b>
Stocktaking on biosafety	The NBF was completed in 2005. The administrative, legislative and institutional status and capacity needs of Turkey with regard to biosafety was determined at that time. Since then, there are some developments and	Updated information on stakeholders and gaps on biosafety	Optimum allocation of resources and good planning of activities for effective implementation of NBF

	changes in the administrative and institutional status.		
Regulatory biosafety regime	<p>The Biosafety Law adopted by TGNA recently, it will be enter into force by 26 September 2010.</p> <p>The effective implementation of the Biosafety Law depends on preparation of practical and understandable regulations, full understanding of the members of the Biosafety Committee of their responsibilities and issues related to biosafety, effective implementation of the provisions of the Law with regard to legal and criminal liability, and the clear notification procedures for applicants.</p> <p>Without the project, there would be weak enforcement of the Law and its regulations which may result with the unregulated introduction of LMOs.</p>	<p>Practical and understandable regulations,</p> <p>Raised understanding of the members of the Biosafety Committee of their responsibilities and issues related to biosafety,</p> <p>Raised understanding of jurists on biosafety issues for effective implementation of the provisions of the Law with regard to legal and criminal liability,</p> <p>The clear notification procedures for applicants.</p>	Effective, transparent and practice regulatory regime in place
System for handling of requests, risk assessment, decision-making and risk management of LMOs	<p>The institutional baseline constitute two functional laboratories, plus three laboratories with the potential to be included in the biosafety network and three research institutes</p> <p>MARA has province directorates and control laboratories for regular food controls and inspections.</p> <p>Administrative and technical staff of MARA constitutes a basis to some extent for human resources for handling of requests, risk assessment, decision-making and risk management. However, the current administrative and technical capacity of</p>	<p>Members of NBC, CA and SAC have enough capacity to handle notifications, risk assessment and decision-making</p> <p>Capacity of 8 institutes built up to be act provincial level to manage risks identified.</p> <p>Human resource capacity raised and sustained for risk assessment and risk management</p> <p>Functional internet portal for data collection, input and analysis with regard to LMOs established</p> <p>Socio-economic</p>	Effective system for handling of requests, risk assessment, decision-making and risk management of LMOs established

	both MARA and other related institutions is not enough to comply with the provisions of CPB and biosafety law. Without the project, notifications could not be evaluated in an appropriate manner and the system could not be functional enough to respond notifications within appropriate time periods; risk management measures could not realized enough to protect biodiversity.	consideration provision of the CPB and the Law is clarified for decision making on LMOs	
Monitoring and inspection system for LMOs	There is also no operational monitoring and inspection system for LMOs. Without the 4 <sup>th</sup> component of the project, determination and handling of illegal movements and release of LMOs would not be possible and may result with damage on biodiversity.	Technical capacity strengthened to meet fully obligations of CBD and CPB as well as enforcement of biosafety law  Laboratories for LMO detection mandated  Technical staff trained on LMO detection and identification	Effective monitoring and inspection system established to regulate transboundary movements and environmental release of LMOs
Public awareness and participation for biosafety	The action plan on public awareness, education and participation was prepared in the scope of the NBF project, but could not be operational yet due to lack of resources. The current situation is not available for sustainability and effectiveness of public awareness and education on biosafety. Without the project Turkey could not establish functional public awareness and participation system and clearing-house mechanism.	Institutional capacity built up to provide sustainable and effective public awareness, education and participation mechanism on biosafety. National Biosafety CHM became operational	Functional public awareness and participation system and clearing-house mechanism established

### 3.8. Sustainability

64. The sustainability of the outcomes of the project will be provided by the legally mandated NBC, CA and SAC. Sustainability of institutional capacity and relevant human resources will be ensured both by regulations and by availability of technical guidelines, manuals and systematic training programmes. Operational National BCH will provide sustainability of

institutional cooperation and collaboration, information sharing, public awareness and participation.

### **3.9. Replication**

65. Project is not replicable, but it may provide a basis for regional cooperation in implementation of the CPB.
66. Regulations to be prepared in the scope of the project on environmental release, marketing, contained use and transboundary movement of LMOs may provide guidance to the countries that have not regulation on biosafety yet and/or solution of the common issues of developing countries in formulation and implementation of biosafety framework.
67. The criteria to be developed in the scope of the project to consider possible socio-economical impacts of LMOs would provide a case study for the Parties on implementation of Article 26 of the CPB.
68. Dissemination of the guidelines, methodologies and manuals to be prepared in the scope of the project on monitoring, inspections and emergency response will provide an opportunity for exchange of experience with other countries.
69. The registration system with unique identifiers to trace back LMOs placed on the market will contribute regional and international studies on monitoring of transboundary movements of LMOs. This system may be replicated in other countries in the region.
70. Public awareness and participation activities would provide an example of a methodology for other countries to fulfill Article 23 of the CPB. National BCH will provide a mechanism for exchange of information and experience on implementation of CPB.
71. Project results will be distributed through national project website and BCH. Consequently, deliverables of the project may guide other Parties in the region in their efforts to have operational NBF.

### **3.10. Public awareness, communications and mainstreaming strategy**

72. Participation of representatives from relevant governmental and non-governmental institutions and organizations was ensured during the development of NBF by establishment of The National Co-ordinating Committee (NCC), involvement of stakeholders in all stages of the project activities and dissemination of the proceedings of meetings via web-site of the executing agency of the project. Same strategy will be used during the project. Additionally, making National BCH operational in early stage of the project will provide effectiveness of public awareness, communications and mainstreaming.
73. The media generally interests with the events involving Ministers and senior officials. Therefore regular media briefs by Minister or senior officials about execution of the project and launching some of the activities of the project (i.e. consultation meetings, workshops, facilities, etc.) by the Minister will maintain interest of the media in project activities and biosafety. Additionally, since the number of environment programmes of local and national TVs and radios is increasing day by day in Turkey, it is possible to perform regular programmes on biosafety in media. Effective involvement of NGOs in the project will also contribute handling of media in project activities due to their active role in general on environmental issues in Turkey.

### **3.11. Environmental and social safeguards**

74. The project is for capacity building for environmental protection with little direct activity in the field and will contribute to the safe use of modern biotechnology, preventing potential harm and giving the opportunity for both environmental and socio-economic benefits.

75. Turkey is located at the intersection of the Mediterranean and Near Eastern gene centers. These two regions have a key role in the emergence of cereals and horticultural crops. Turkey also has 5 micro-gene centers in which more than 100 species display a wide variation and which are the origin or centre of a large number of important crop plants and other economically important plant species such as medical plants. These centers offer very important genetic resources for the future sustainability of many plant species cultivated across the world. Therefore, taking into consideration the biological diversity of Turkey, in particular genetic centers of origin and diversity of genetic resources important for food and agriculture, biosafety has utmost importance for biological diversity and food security both at national and global levels. The unregulated use and release of LMOs may cause loss of biological diversity and genetic erosion in Turkey. The project will contribute establishment of effective and operational biosafety system in Turkey, and therefore the project helps to prevent the loss of biological diversity and genetic erosion.

76. In Turkey, the agricultural sector is an important source of economic activity compared with other sectors, providing 61.4 % of employment in rural areas. In this context, the agricultural sector remains the basic driving force in rural development efforts as well as being an important element of overall national development. In addition, agriculture is not only an economic activity as such but also a social process of regional, cultural and ecological importance. Since agricultural production in Turkey is carried out in small enterprises using rather low agricultural inputs, it also provides a suitable environment for the conservation of wild species in farm lands. Therefore, unregulated release of LMOs may have socio-economic impacts and negative effects on small-scale farmers and organic farmers which in turn result with negative effects on both environment and rural development. Therefore, the project will help to prevent negative socio-economic effects on rural populations.

77. The project will help improvement of inspection, monitoring and surveillance capacity of Turkey through improvement of laboratory facilities and human resources to fulfill provisions of the CPB, thus protection of the environment and social welfare.

78. The project will provide clear rules on safe use of LMOs at early stage of introduction of LMOs in Turkey. Therefore, the long-term effects of the project will be the opportunity for Turkey to benefit from modern biotechnology in an environmentally and socially safe manner and without any harm to human health in the future.

#### **SECTION 4: INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION ARRANGEMENTS**

79. This project builds on an UNEP's portfolio of enabling activities in over 123 countries and 8 demonstration projects out of 12 on capacity building for the implementation of the CPB carried out through the development and implementation of National Biosafety Frameworks respectively. This reflects UNEP's considerable experience and expertise in the area and therefore its comparative advantage in the field. This portfolio has already produced relevant results, generated lessons learned and best practices being used /which can be used in other countries of the world. In this respect, the project will benefit from UNEP's experience and expertise to develop a fully operational NBF in Turkey, where best practices and lessons learned will add to those being acquired through the eight demonstration projects currently running under UNEP.

80. The project will be executed by Ministry of Agriculture and Rural Affairs (General Directorate of Agricultural Research) which was also executing agency of NBF development project. The National Coordinating Committee (NCC) will be established by the National Executing Agency (NEA) to advise and guide the implementation of the National Biosafety Framework. This committee will include representations of all government agencies with mandates relevant to the Cartagena Protocol on Biosafety and will include representations from the private and public

sectors. This Committee will be multi-disciplinary and multi-sectoral in fields relevant to the Cartagena Protocol on Biosafety. The NEA may also establish sub-working groups as necessary with clear Terms of Reference as appropriate. The National Project Coordinator will be appointed by the National Executing Agency, after consultation with UNEP, for the duration of the National Project. The National Project Coordinator shall be responsible for the overall co-ordination, management and supervision of all aspects of the National Project. He/she will report to the National Coordinating Committee and UNEP, and liaise closely with the chair and members of the National Coordinating Committee and National Executing Agency in order to coordinate the work plan for the National Project. He/she shall be responsible for all substantive, managerial and financial reports from the National Project. He/she will provide overall supervision for any staff in the NBF Team as well as guiding and supervising all other staff appointed for the execution of the various National Project components.

### SECTION 5: STAKEHOLDER PARTICIPATION

81. Key stakeholders of the project are NGOs acting on conservation and sustainable use of biodiversity and on consumer rights on one hand; chambers and private sector on the other hand. Project coordination committee will include their representatives. Their participation will also be encouraged into workshops during the project. National BCH will provide timely dissemination of information to the stakeholders to enhance their participation to the project activities.
82. Among governmental institutions, departments, research institutes and laboratories of the MARA are main beneficiaries of the project. MEF will also benefit from the outcomes of the project in terms of its contribution to conservation and sustainable use of biodiversity. MEF will take active role in the implementation of the project.
83. Other governmental institutions who will participate into project activities are Ministry of Health, Ministry of Justice, Ministry of Industry and Trade, Undersecretary of State Planning Organization, Undersecretary of Foreign Trade, Undersecretary of Customs, Turkish Patent Institute, The Scientific and Technical Research Council of Turkey and Universities.
84. Stocktaking under 1<sup>st</sup> component of the project will serve detail analysis of stakeholders for their participation.

Stakeholders	Roles of Stakeholders
MARA-GDAR	<p>Executing institution of the project</p> <p>National focal point and competent authority for CPB</p> <p>Coordinator agency for handling of request, risk assessment and risk management of LMOs</p> <p>Management and sustainable use of natural resources, <i>ex-situ</i> conservation of plant species and agricultural research including genetic diversity</p>
MARA-GDPC	<p>Competent authority for CPB (FFP-LMOs)</p> <p>Regulation of the trade, production, processing, licensing, inspection and control of agricultural enterprises for seed, feed and food, for veterinary products and pharmaceuticals</p>
MARA-GDAPD	Regulation of agricultural production
MEF	<p>Member of NCC and NBC</p> <p>Development and implementation of the policies, plans and programmes</p>

	<p>concerning the conservation and sustainable use of the environment and biological diversity</p> <p>Designation and management of protected areas</p> <p>Public awareness and participation on environmental issues</p> <p>National Focal Point for CBD</p> <p>Registration of production materials of forest trees</p>
Ministry of Health	<p>Member of NCC and NBC</p> <p>Licensing and authorization of human pharmaceuticals</p>
Ministry of Justice	<p>Member of NCC</p> <p>Handling of court cases with regard LMOs for punishment of illegal transboundary movements and enforcement of the Biosafety Law</p>
Ministry of Industry and Trade	<p>Member of NCC and NBC</p> <p>Protection of consumers' rights</p> <p>Regulation of national trade and industrial development</p>
Undersecretary of State Planning Organization	<p>Member of NCC</p> <p>Safeguarding the correspondence of national policies, plans and programmes, including environmental ones, in the framework of development plans</p> <p>Mobilization and planning of internal financial resources</p>
Undersecretary of Foreign Trade	<p>Member of NCC and NBC</p> <p>Determination and execution of foreign trade policies</p>
Undersecretary of Customs	<p>Member of NCC</p> <p>Authorization and control of transits</p> <p>Border controls</p>
Turkish Patent Institute	<p>Member of NCC</p> <p>Protection of intellectual property rights</p>
The Scientific and Technical Research Council of Turkey	<p>Member of NCC</p> <p>Research activities relevant to biological diversity and biosafety</p> <p>Scientific opinions on LMOs</p>
Universities	<p>Member of NCC, NBC and SAC</p> <p>Research activities relevant to biological diversity and biosafety.</p> <p>Scientific opinions on LMOs</p>
NGOs acting on conservation and sustainable use of biodiversity	<p>Member of NCC</p> <p>Effectiveness of public awareness and participation activities.</p>
NGOs acting on consumer rights	<p>Member of NCC</p> <p>Effectiveness of public awareness and participation activities</p>
Professional Chambers	<p>Member of NCC and NBC</p>

	Implementation of risk management measures
Private sector	Member of NCC Implementation of risk management measures
Public	Final beneficiary of the project Implementation of risk management measures

## SECTION 6: MONITORING AND EVALUATION PLAN

88. The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Appendix 7. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

89. The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Appendix 4 includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Appendix 6 will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in Appendix 4&7. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall project budget.

90. 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. Indicators and their means of verification may also be fine-tuned at the inception workshop. 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 Manager 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.

91. 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.

92. At the time of project approval 50 percent of baseline data is available. Baseline data gaps will be addressed during the first year of project implementation. A plan for collecting the necessary baseline data is presented in Appendix 7. The main aspects for which additional information are needed are exact status of modern biotechnology and biosafety capacity across public and private sectors..

93. Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will

also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

94. A mid-term management review or evaluation will take place on June 2012 as indicated in the project milestones. The review will include all parameters recommended by the GEF Evaluation Office for terminal evaluations and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis (see section 5 of the project document). The project Steering Committee will participate in the mid-term review and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented.

95. An independent terminal evaluation will take place at the end of project implementation. The Evaluation and Oversight Unit (EOU) of UNEP will manage the terminal evaluation process. A review of the quality of the evaluation report will be done by EOU and submitted along with the report to the GEF Evaluation Office not later than 6 months after the completion of the evaluation. The standard terms of reference for the terminal evaluation are included in Appendix 9. These will be adjusted to the special needs of the project.

96. The GEF tracking tools are attached as Appendix 15. These will be updated at mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR report. As mentioned above the mid-term and terminal evaluation will verify the information of the tracking tool.

## SECTION 7: PROJECT FINANCING AND BUDGET

### 7.1.-Overall project budget

Component	GEF	%	Co-F	%	Total
1 Stocktaking on biosafety	5,000	50	5,000	50	10,000
2 Regulatory biosafety regime	14,000	45	17,000	55	31,000
3 System for handling of requests, risk assessment, decision-making and risk management of LMOs	128,000	42	176,500	58	304,500
4 Monitoring and inspection system for LMOs	272,650	44	350,000	56	622,650
5 Public awareness and participation for biosafety	53,000	34	101,500	66	154,500
M&E	20,000	44	25,000	56	45,000
Project Management	50,000	40	75,000	60	125,000
<b>TOTAL</b>	<b>542,650</b>	<b>42</b>	<b>750,000</b>	<b>58</b>	<b>1,292,650</b>

## 7.2 Project co-financing

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	Cash	550,000
Project Government Contribution	In-kind	200,000
GEF Agency(ies)	(select)	
Bilateral Aid Agency(ies)	(select)	
Multilateral Agency(ies)	(select)	
Private Sector	(select)	
NGO	(select)	
Others	(select)	
Total Co-financing		750,000

## 7.3 Project cost-effectiveness

1. The agricultural sector is an important source of economic activity compared with other sectors, providing 61.4 % of employment in rural areas. In this context, the agricultural sector remains the basic driving force in rural development efforts as well as being an important element of overall national development. In addition, agriculture is not only an economic activity as such but also a social process of regional, cultural and ecological importance. Since agricultural production in Turkey is carried out in small enterprises using rather low agricultural inputs, it also provides a suitable environment for the conservation of wild species through the farmer in the rural sector. But this structure is also increase risks of LMOs on agro biodiversity of Turkey.
2. With the responsibility of conservation of biological diversity on one hand and the commitments under Millennium Development Goals on the other hand, Turkey has difficulties in management of activities involving LMOs. Since there is no strong biosafety regulatory regime in place, Turkey could not finalize applications about transboundary movements of LMOs. Furthermore, there are administrative, legislative and institutional gaps to prohibit and penalize illegal movements of LMOs. Therefore, Turkey would not be able to make safe use of modern biotechnology without strong biosafety regime in place.
3. During the UNEP/GEF project on development of NBF supported by internal resources technical and human resource capacity of two laboratory build up to detect LMOs and analyze risks of them. There are three more laboratory having potential to be included in a national biosafety laboratory network. There is a need to include three laboratories in provinces in the network to have functional system for biosafety. The project is built on these laboratories and human resources. Training of trainers is a key activity in the project for cost effectiveness in terms of technical capacity and will provide sustainability of the biosafety system.
4. The ability of safe use of modern biotechnology will contribute conservation of biological diversity, particularly genetic resources important for food and feed, achievement of Millenium Development Goals and meeting obligations of Turkey under other multilateral environmental conventions.

**APPENDICES**

- Appendix 1: Budget by project components and UNEP budget lines**
- Appendix 2: Co-financing by source and UNEP budget lines**
- Appendix 3: Incremental cost analysis**
- Appendix 4: Results Framework**
- Appendix 5: Workplan and timetable**
- Appendix 6: Key deliverables and benchmarks**
- Appendix 7: Costed M&E plan**
- Appendix 8: Summary of reporting requirements and responsibilities**
- Appendix 9: Standard Terminal Evaluation TOR**
- Appendix 10: Decision-making flowchart and organizational chart**
- Appendix 11: Terms of Reference**
- Appendix 12: Co-financing commitment letters from project partners**
- Appendix 13: Endorsement letters of GEF National Focal Points**
- Appendix 14: Draft procurement plan**
- Appendix 15: Tracking Tools**

Project No: GFL

Project Name: Support for the Implementation of the draft National Biosafety Framework of Turkey

Executing Agency: Ministry of Agriculture and Rural Affairs

UNEP BUDGET LINE/OBJECT OF EXPENDITURE	ACTIVITY (AS PER ANNEX 1B)							EXPENDITURE BY YEAR (AS PER ANNEX 2B)						
	A	B	C	D	E	F	Total	Y 1 (2009)	Y2 (2010)	Y3 (2011)	Y4 (2012)	Y5 (2013)	Total	
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
<b>10 PROJECT PERSONNEL COMPONENT</b>														
1102 Project Staff	0.00	0.00	0.00	0.00	0.00	40,800.00	\$40,800.00	0.00	0.00	12,000.00	14,400.00	14,400.00	40,800.00	
1120 Administrative Staff	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1201 International Consultants	0.00	0.00	20,000.00	10,000.00	0.00	8,000.00	\$38,000.00	0.00	0.00	20,000.00	10,000.00	8,000.00	38,000.00	
1202 National Consultants	2,500.00	0.00	6,000.00	10,000.00	0.00	0.00	\$18,500.00	0.00	0.00	2,500.00	16,000.00	0.00	18,500.00	
1601 Staff Travel & Transport	0.00	0.00	6,000.00	0.00	0.00	3,000.00	\$9,000.00	0.00	0.00	7,000.00	1,000.00	1,000.00	9,000.00	
<b>1999 Component Total</b>	<b>2,500.00</b>	<b>0.00</b>	<b>32,000.00</b>	<b>20,000.00</b>	<b>0.00</b>	<b>51,800.00</b>	<b>\$106,300.00</b>	<b>0.00</b>	<b>0.00</b>	<b>41,500.00</b>	<b>41,400.00</b>	<b>23,400.00</b>	<b>106,300.00</b>	
<b>20 SUB-CONTRACT COMPONENT</b>														
2201 Sub-contract to governmental agencies	0.00	0.00	0.00	8,000.00	5,000.00	0.00	\$13,000.00	0.00	0.00	13,000.00	0.00	0.00	13,000.00	
2301 Sub-contract to private firms	0.00	0.00	3,000.00	5,000.00	6,000.00	0.00	\$14,000.00	0.00	0.00	8,000.00	6,000.00	0.00	14,000.00	
<b>2999 Component Total</b>	<b>0.00</b>	<b>0.00</b>	<b>3,000.00</b>	<b>13,000.00</b>	<b>11,000.00</b>	<b>0.00</b>	<b>\$27,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21,000.00</b>	<b>6,000.00</b>	<b>0.00</b>	<b>27,000.00</b>	
<b>30 TRAINING COMPONENT</b>														
3201 Training	0.00	0.00	63,000.00	123,650.00	5,000.00	0.00	\$191,650.00	0.00	0.00	22,000.00	64,000.00	105,650.00	191,650.00	
3301 Meetings	2,500.00	11,600.00	21,000.00	10,000.00	20,000.00	0.00	\$65,100.00	0.00	0.00	13,100.00	34,500.00	17,500.00	65,100.00	
<b>3999 Component Total</b>	<b>2,500.00</b>	<b>11,600.00</b>	<b>84,000.00</b>	<b>133,650.00</b>	<b>25,000.00</b>	<b>0.00</b>	<b>\$256,750.00</b>	<b>0.00</b>	<b>0.00</b>	<b>35,100.00</b>	<b>98,500.00</b>	<b>123,150.00</b>	<b>256,750.00</b>	
<b>40 EQUIPMENT &amp; PREMISES COMPONENT</b>														
4101 Office supplies and consumables	0.00	0.00	0.00	0.00	0.00	3,000.00	\$3,000.00	0.00	0.00	1,000.00	1,000.00	1,000.00	3,000.00	
4102 Laboratory supplies and consumables	0.00	0.00	0.00	8,000.00	0.00	0.00	\$8,000.00	0.00	0.00	0.00	8,000.00	0.00	8,000.00	
4201 Non Laboratory Purchase	0.00	0.00	3,000.00	0.00	0.00	0.00	\$3,000.00	0.00	0.00	3,000.00	0.00	0.00	3,000.00	
4202 Laboratory Equipment	0.00	0.00	0.00	90,000.00	0.00	0.00	\$90,000.00	0.00	0.00	90,000.00	0.00	0.00	90,000.00	
4301 Office Premises	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4302 Research Facilities	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>4999 Component Total</b>	<b>0.00</b>	<b>0.00</b>	<b>3,000.00</b>	<b>98,000.00</b>	<b>0.00</b>	<b>3,000.00</b>	<b>\$104,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>94,000.00</b>	<b>9,000.00</b>	<b>1,000.00</b>	<b>104,000.00</b>	
<b>50 MISCELLANEOUS COMPONENT</b>														
5101 Equipment Maintenance	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5201 Publication, Translation, Dissemination and reporting costs	0.00	2,400.00	6,000.00	8,000.00	17,000.00	3,200.00	\$36,600.00	0.00	0.00	8,400.00	17,000.00	11,200.00	36,600.00	
5202 Audit Reports	0.00	0.00	0.00	0.00	0.00	6,000.00	\$6,000.00	0.00	0.00	1,000.00	1,000.00	4,000.00	6,000.00	
5301 Communications (tel, fax, e-mail, etc..)	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5302 Others	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5303 Monitoring & Evaluation	0.00	0.00	0.00	0.00	0.00	6,000.00	\$6,000.00	0.00	0.00	2,000.00	2,000.00	2,000.00	6,000.00	
5375 UNDP charges	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>5999 Component Total</b>	<b>0.00</b>	<b>2,400.00</b>	<b>6,000.00</b>	<b>8,000.00</b>	<b>17,000.00</b>	<b>15,200.00</b>	<b>\$48,600.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11,400.00</b>	<b>20,000.00</b>	<b>17,200.00</b>	<b>48,600.00</b>	
<b>TOTAL COSTS</b>	<b>5,000.00</b>	<b>14,000.00</b>	<b>128,000.00</b>	<b>272,650.00</b>	<b>53,000.00</b>	<b>70,000.00</b>	<b>\$542,650.00</b>	<b>0.00</b>	<b>0.00</b>	<b>203,000.00</b>	<b>174,900.00</b>	<b>164,750.00</b>	<b>\$542,650.00</b>	

- A: Stocktaking & Biosafety Policy  
B: Regulatory regime  
C: System for handling of requests for authorization (including administrative processing for risk assessment and informed decision-making), risk assessment and risk management  
D: Follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections)  
E: Public awareness and participation  
F: Project Coordination, including project monitoring & evaluation, etc

## Annex 2b Activities-based Budget

Activity Code	Project Activities / SubActivities	Year 1		Year 2		Year 3		Year 4		Year 5		Total	
		GEF	GOV	GEF	GOV	GEF	GOV	GEF	GOV	GEF	GOV	GEF	GOV
<b>A</b>	<b>Stocktaking &amp; Biosafety Policy</b>												
A 1	Stocktaking Activities	0.00	0.00	0.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	750.00
A 2	Establishment of National Coordinating Committee (NCC) of the project and sub-working group (SWG) by NCC to undertake technical activities of the project	0.00	0.00	0.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	1,250.00
A 3	Review of current situation by national consultant (i.e. existing institutions and stakeholders with regard to implementation of NBF in Turkey, gaps and needs for regional harmonization and consistency where there is potential for reciprocal (transboundary) movement, ext)	0.00	0.00	0.00	0.00	2,500.00	500.00	0.00	0.00	0.00	0.00	2,500.00	500.00
A 4	Organization of workshop to discuss findings of the consultant with regard to current situation on biosafety and to determine gaps and needs for implementation of NBF	0.00	0.00	0.00	0.00	2,500.00	2,500.00	0.00	0.00	0.00	0.00	2,500.00	2,500.00
A 5	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Total A</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>5,000.00</b>
<b>B</b>	<b>Regulatory regime</b>												
B 1	Organization of working group meetings to prepare/review regulations on environmental release, marketing, contained use and transboundary movement of LMOs	0.00	0.00	0.00	0.00	3,600.00	1,500.00	0.00	0.00	0.00	0.00	3,600.00	1,500.00
B 2	Approval and dissemination of regulations on environmental release, marketing, contained use and transboundary movement of LMOs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,200.00	0.00	0.00	0.00	1,200.00
B 3	Preparation of regulation to establish and mandate National Biosafety Committee as defined in the Law by SWG, and approval of it by the Ministry	0.00	0.00	0.00	0.00	1,000.00	850.00	0.00	0.00	0.00	0.00	1,000.00	850.00
B 4	Determination and appointment of the members of the NBC and organization of regular meetings of National Biosafety Committee	0.00	0.00	0.00	0.00	0.00	1,250.00	0.00	1,250.00	0.00	1,250.00	0.00	3,750.00
B 5	Preparation of regulation to establish and mandate competent authorities and Scientific Advisory Committee by SWG as defined in the Law and approval of it by the Ministry and official mandating of competent authorities	0.00	0.00	0.00	0.00	1,000.00	700.00	0.00	0.00	0.00	0.00	1,000.00	700.00
B 6	Determination and appointment of the members of the SAC Organization of regular meetings of Scientific Advisory Committee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,350.00	0.00	2,350.00	0.00	4,700.00
B 7	Preparation of manual on application procedures according to Biosafety Law for use by applicants by SWG, plus publication and dissemination	0.00	0.00	0.00	0.00	2,400.00	2,200.00	0.00	0.00	0.00	0.00	2,400.00	2,200.00
B 8	Determination of key lawyers and legal officers who will be involved in the applications of the legal and criminal articles of the Biosafety Law and implementation of the legal aspects of the Cartagena Protocol on Biosafety and transboundary movements of LMOs in consultation and collaboration with the Ministry of Justice	0.00	0.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	350.00
B 9	Organization of training for lawyers and legal officers on legal aspects of transboundary movements of LMOs and products thereof	0.00	0.00	0.00	0.00	0.00	0.00	6,000.00	1,750.00	0.00	0.00	6,000.00	1,750.00
B 10	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Total B</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8,000.00</b>	<b>6,850.00</b>	<b>6,000.00</b>	<b>6,550.00</b>	<b>0.00</b>	<b>3,600.00</b>	<b>14,000.00</b>	<b>17,000.00</b>

Annex 2b Activities-based Budget

C	System for handling of requests for authorization (including administrative processing for risk assessment and informed decision-making), risk assessment and risk management												
C 1	Organization of a meeting for the purpose of instruction of system for handling of requests, risk assessment, decision-making and risk management of LMOs to the members of NBC, CA and SAC	0.00	0.00	0.00	0.00	0.00	0.00	3,500.00	6,350.00	0.00	0.00	3,500.00	6,350.00
C 2	Training of trainer technical staff on handling of requests, risk assessment and risk management by purchase of international consultancy	0.00	0.00	0.00	0.00	48,000.00	30,400.00	0.00	0.00	0.00	0.00	48,000.00	30,400.00
C 3	Training of technical staff of province laboratories in 8 provinces on LMO identification methods and risk analysis of LMOs by trainer technical staff	0.00	0.00	0.00	0.00	0.00	0.00	26,000.00	62,400.00	15,000.00	31,750.00	41,000.00	94,150.00
C 4	Review of current international and regional guidelines, methodologies and manuals for risk assessment, risk management and socio-economic evaluation by SWG	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	2,800.00	0.00	0.00	2,000.00	2,800.00
C 5	Preparation of the drafts taking into account the national circumstances	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	1,950.00	0.00	0.00	2,000.00	1,950.00
C 6	Organization of working group meetings to finalize guidelines, methodologies and manuals for risk assessment, risk management and socio-economic evaluation	0.00	0.00	0.00	0.00	0.00	0.00	7,500.00	5,000.00	0.00	0.00	7,500.00	5,000.00
C 7	Publication and dissemination of the guidelines, methodologies and manuals	0.00	0.00	0.00	0.00	0.00	0.00	6,000.00	0.00	0.00	0.00	6,000.00	0.00
C 8	Purchase of 3 PC to be used for the purpose of management of the information and data on LMOs for risk assessors, decision-makers and risk managers	0.00	0.00	0.00	0.00	3,000.00	2,000.00	0.00	0.00	0.00	0.00	3,000.00	2,000.00
C 9	Sub-contract to private firm for preparation of internet portal and training of the staff to operate the portal for data collection, input and analysis for risk management purposes which also will serve monitoring of LMOs	0.00	0.00	0.00	0.00	0.00	0.00	3,000.00	25,000.00	0.00	0.00	3,000.00	25,000.00
C 10	Review of case studies on socio-economic consideration of LMOs by SWG	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	2,100.00	0.00	0.00	2,000.00	2,100.00
C 11	Organization of national consultation meeting with all key stakeholders, for determination of criteria to consider possible socio-economical impacts of LMOs and identification of priority issues among them to be taken into consideration in decision making process with regard to environmental release of LMOs	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	3,225.00	0.00	0.00	10,000.00	3,225.00
C 12	Dissemination of findings of the consultation meeting to wider stakeholder groups to finalize the document	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,025.00	0.00	0.00	0.00	1,025.00
C 13	Publication and dissemination of criteria and priority socio-economical issues to be taken into consideration for decision making	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,500.00	0.00	0.00	0.00	2,500.00
C 14	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C 15	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total C</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>51,000.00</b>	<b>32,400.00</b>	<b>62,000.00</b>	<b>112,350.00</b>	<b>15,000.00</b>	<b>31,750.00</b>	<b>128,000.00</b>	<b>176500</b>

Annex 2b Activities-based Budget

<b>D</b>	<b>Follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections)</b>													
D 1	Purchase of equipments (Real Time PCR and Normal Reverse Transcriptase PCR equipments) to detect LMOs	0.00	0.00	0.00	0.00	90,000.00	92,400.00	0.00	92,400.00	0.00	0.00	90,000.00	184,800.00	
D 2	Sub-contract to private firm for accreditation procedure of Ankara Control Laboratory for detection and inspections on LMOs and products thereof	0.00	0.00	0.00	0.00	8,000.00	54,100.00	0.00	0.00	0.00	0.00	8,000.00	54,100.00	
D 3	Standardization of detection methods used in mandated laboratories	0.00	0.00	0.00	0.00	0.00	0.00	12,000.00	19,600.00	0.00	27,600.00	12,000.00	47,200.00	
D 4	Training of inspectors on inspection procedures for activities involving LMOs and related legal issues(40px3davx200\$(2nd year)+80px2davx200\$(3rd year)	0.00	0.00	0.00	0.00	0.00	0.00	33,000.00	3,400.00	31,000.00	5,700.00	64,000.00	9,100.00	
D 5	Training of staff to implement the emergency measures in response to unintended release of LMOs, accidents or unforeseen events during transits of LMOs, to monitor LMOs in the environment and in the market, to undertake controls, inspections and research studies on biosafety(50px2dx200\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19,650.00	6,600.00	19,650.00	6,600.00	
D 6	Training of Health and Safety Inspectors, Quarantine and Custom officers of MARA on detection of LMOs (25px2dx200\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	3,800.00	10,000.00	3,800.00	
D 7	Training of Customs personnel on biosafety measures to be implemented during border controls of goods to prevent illegal transboundary movements of LMOs (50px2dx200\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20,000.00	8,200.00	20,000.00	8,200.00	
D 8	Informing of Judiciary officials on Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions, to facilitate dispute settlement, handling of court cases and enforcement of Biosafety Law	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	5,000.00	10,000.00	5,000.00	
D 9	Purchase of consultancy to prepare guidelines, methodologies and manuals on monitoring, inspections and emergency response	0.00	0.00	0.00	0.00	0.00	0.00	6,000.00	0.00	0.00	0.00	6,000.00	0.00	
D 10	Preparation and dissemination of operational manual with checklists for LMO inspectors	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	4,900.00	0.00	0.00	2,000.00	4,900.00	
D 11	Preparation and dissemination of guidelines and rules for emergency and accidental releases	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	4,400.00	0.00	0.00	2,000.00	4,400.00	
D 12	Preparation and dissemination of guidelines for customs control purposes, including a mechanism for efficient control of transboundary movements of LMOs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	4,400.00	2,000.00	4,400.00	
D 13	Preparation and dissemination of guidelines for monitoring environmental effects of LMOs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	4,400.00	2,000.00	4,400.00	
D 14	Sub-contract to private firm for establishment of registration system with unique identifiers to trace back LMOs placed on the market	0.00	0.00	0.00	0.00	5,000.00	5,300.00	0.00	0.00	0.00	0.00	5,000.00	5,300.00	
D 15	Organization of lecture courses about monitoring and surveillance for different target groups (environmental and food inspectorates, local environmental agencies, consumer protection, plant production inspectorates etc) by using the registration system	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	3,900.00	10,000.00	3,900.00	20,000.00	7,800.00	
<b>Total D</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>103,000.00</b>	<b>151,800.00</b>	<b>65,000.00</b>	<b>128,600.00</b>	<b>104,650.00</b>	<b>69,600.00</b>	<b>272,650.00</b>	<b>350000</b>	
<b>E</b>	<b>Public awareness and participation</b>													
E 1	Revision of public awareness action Plan of NBF by SWG and NCC	0.00	0.00	0.00	0.00	0.00	6,175.00	0.00	0.00	0.00	0.00	0.00	6,175.00	
E 2	Preparation and dissemination of publications, informative materials, newsletters etc on LMOs and biosafety to different society groups	0.00	0.00	0.00	0.00	5,000.00	9,450.00	6,000.00	10,950.00	6,000.00	10,950.00	17,000.00	31,350.00	
E 3	Training of managers and technical staff of institutions and trainers to ensure their active role in the public awareness and participation activities	0.00	0.00	0.00	0.00	0.00	0.00	5,000.00	4,375.00	0.00	0.00	5,000.00	4,375.00	
E 4	Organization of info days, public debates, campaigns for different society groups including farmers, private sector, consumers and media	0.00	0.00	0.00	0.00	5,000.00	10,100.00	7,500.00	15,550.00	7,500.00	15,550.00	20,000.00	41,200.00	
E 5	Sub-contract to governmental agency for inclusion of biosafety issues in academic programmes	0.00	0.00	0.00	0.00	5,000.00	8,900.00	0.00	0.00	0.00	0.00	5,000.00	8,900.00	
E 6	Sub-contract to private firm to revise the national BCH for the purposes of making it interoperable with BCH and user-friendly	0.00	0.00	0.00	0.00	3,000.00	4,700.00	0.00	0.00	0.00	0.00	3,000.00	4,700.00	
E 7	Training of the staff mandated to operate national BCH	0.00	0.00	0.00	0.00	0.00	0.00	3,000.00	4,800.00	0.00	0.00	3,000.00	4,800.00	
E 8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E 9	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Total E</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>18,000.00</b>	<b>39,325.00</b>	<b>21,500.00</b>	<b>35,675.00</b>	<b>13,500.00</b>	<b>26,500.00</b>	<b>53,000.00</b>	<b>101500</b>	
<b>F</b>	<b>Project Coordination, including project monitoring &amp; evaluation, etc</b>													
F 1	project management	0.00	0.00	0.00	0.00	15,000.00	25,000.00	17,400.00	25,000.00	17,600.00	25,000.00	50,000.00	75,000.00	
F 2	monitoring and evaluation	0.00	0.00	0.00	0.00	3,000.00	7,500.00	3,000.00	7,500.00	14,000.00	10,000.00	20,000.00	25,000.00	
F 3	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Total F</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>18,000.00</b>	<b>32,500.00</b>	<b>20,400.00</b>	<b>32,500.00</b>	<b>31,600.00</b>	<b>35,000.00</b>	<b>70,000.00</b>	<b>100000</b>	
<b>Grand Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>203,000.00</b>	<b>267,875.00</b>	<b>174,900.00</b>	<b>315,675.00</b>	<b>164,750.00</b>	<b>166,450.00</b>	<b>542,650.00</b>	<b>750,000.00</b>	

### Appendix 3: Incremental Cost Analysis:

Within the context of this project the baseline includes the activities carries out at the domestic level with respect to each specific project component; the increment includes the activities proposed under this project proposal for the purpose of meeting requirement under the Cartagena Protocol and Turkey's international obligations to be financed through GEF contribution and National Co-financing.

<i>Project Component</i>	<i>Baseline</i>	<i>Alternative</i>	<i>Increment</i>	<i>Incremental Cost</i>
<u>Component 1:</u>				
Analyzing the stakeholders and gaps with regard to implementation of NBF of Turkey	<ul style="list-style-type: none"> <li>- The NBF was completed in 2005</li> <li>- There is a need to identify gaps and needs for regional harmonization and consistency</li> <li>- There is need for analysis of stakeholders for their active participation into implementation of NBF</li> </ul>	<ul style="list-style-type: none"> <li>- Updated information on stakeholders and gaps on biosafety</li> </ul>	<ul style="list-style-type: none"> <li>- Optimum allocation of resources and well-planned activities for effective implementation of NBF</li> </ul>	<ul style="list-style-type: none"> <li>- Cost to GEF Budget "Global benefit": <b>US\$ 5,000</b></li> <li>- Co-finance "Government contribution": <b>US\$ 5,000</b></li> </ul>
	<b>US\$ 5,000</b>	<b>US\$ 15,000</b>	<b>US\$ 10,000</b>	
<u>Component 2:</u>				
Enforcement and mandating of regulatory biosafety regime	<ul style="list-style-type: none"> <li>- The Biosafety Law adopted by TGNA recently, it will be enter into force by 26 September 2010</li> <li>- There is a need for practical and understandable regulations and full understanding of the members of the Biosafety Committee of their responsibilities and issues related to biosafety for effective</li> </ul>	<ul style="list-style-type: none"> <li>- Practical and understandable regulations</li> <li>- Raised understanding of the members of the National Biosafety Committee of their responsibilities and issues related to biosafety</li> <li>- Raised understanding of jurists on biosafety issues for effective implementation of</li> </ul>	<ul style="list-style-type: none"> <li>Effective, transparent and practical regulatory regime in place</li> </ul>	<ul style="list-style-type: none"> <li>- Cost to GEF Budget "Global benefit": <b>US\$ 14,000</b></li> <li>- Co-finance from the Government: <b>US\$ 17,000</b></li> </ul>

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<p>implementation of the Biosafety Law</p> <ul style="list-style-type: none"> <li>- There is a need for clear procedures for implementation of the provisions of the Law with regard to legal and criminal liability, and the clear notification procedures for applicant</li> <li>- Without the project, there would be weak enforcement of the Law and its regulations which may result with the unregulated introduction of LMOs</li> </ul> <p><b>US\$ 10,000</b></p>	<p>the provisions of the Law with regard to legal and criminal liability</p> <ul style="list-style-type: none"> <li>- The clear notification procedures for applicants</li> </ul> <p><b>US\$ 41,000</b></p>	<p><b>US\$ 31,000</b></p>
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**Component 3:**

<p>Establishment of functional system for handling of requests, risk assessment, decision-making and risk management of LMOs</p>	<ul style="list-style-type: none"> <li>- Administrative and technical staff of MARA constitutes a basis to some extent for human resources for handling of requests, risk assessment, decision-making and risk management.</li> <li>- The institutional baseline constitute two functional laboratories, plus three laboratories with the potential to be included in the biosafety network and three research institutes</li> <li>-The current</li> </ul>	<ul style="list-style-type: none"> <li>- Members of NBC, CA and SAC have enough capacity to handle notifications, risk assessment and decision-making</li> <li>- Capacity of 8 institutes built up to be act provincial level to manage risks identified.</li> <li>-Human resource capacity raised and sustained for risk assessment and risk management</li> <li>- Functional internet portal for data collection, input and</li> </ul>	<ul style="list-style-type: none"> <li>- Functional system for handling of requests, risk assessment, decision-making and risk management of LMOs established</li> </ul>	<ul style="list-style-type: none"> <li>- Cost to GEF Budget "Global benefit": <b>US\$ 128,000</b></li> <li>- Co-finance from the Government: <b>US\$ 176,500</b></li> </ul>
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<p>administrative and technical capacity of both MARA and other related institutions is not enough to comply with the provisions of CPB and biosafety law.</p> <p>- Without the project, notifications could not be evaluated in an appropriate manner and the system could not be functional enough to respond notifications within appropriate time periods; risk management measures could not realized enough to protect biodiversity.</p> <p>- Socio-economic consideration could not reflected appropriately in decision-making on LMOs</p>	<p>analysis with regard to LMOs established</p> <p>-Socio-economic consideration provision of the CPB and the Law is clarified for decision making on LMOs</p>		
<b>US\$ 120,000</b>	<b>US\$ 424,500</b>	<b>US\$ 304,500</b>	

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**Component 4:**

<p>Establishment of monitoring and inspection system for LMOs</p>	<p>- There are 2 functional laboratories to detect LMOs for the purpose of market control and inspection; however this capacity is not enough to prevent illegal environmental release and transboundary</p>	<p>- Technical capacity strengthened to meet fully obligations of CBD and CPB as well as enforcement of biosafety law</p> <p>- Laboratories for LMO detection mandated</p> <p>- LMO detection methods accredited and standardized for the purpose of</p>	<p>- Effective operational system for monitoring environmental effects and enforcement is in place</p>	<p>- Cost to GEF Budget "Global benefit": <b>US\$ 272,650</b></p> <p>- Co-finance from the Government: <b>US\$ 350,000</b></p>
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<p>movement of LMOs.</p> <ul style="list-style-type: none"> <li>- Without the 4th component of the project, determination and handling of illegal movements and release of LMOs would not be possible and may result with damage on biodiversity.</li> <li>- Technical means and training are needed so as to enable inspectors and technician to carry out their tasks</li> </ul>	<p>surveillance of LMOs</p> <ul style="list-style-type: none"> <li>- Technical staff trained on LMO detection and identification</li> <li>- System for monitoring of environmental effects and enforcement is in place</li> <li>- Increased national competence on monitoring, inspection and handling emergency cases is available and equipped with tools for additional capacity building</li> </ul>		
<b>US\$ 200,0 00</b>	<b>US\$ 825,000</b>	<b>US\$ 625,000</b>	

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**Component 5:**

<p>Establishment of functional system for public awareness and participation for biosafety</p>	<ul style="list-style-type: none"> <li>- The action plan on public awareness, education and participation was prepared in the scope of the NBF project, but could not be operational yet due to lack of resources.</li> <li>- The current situation is not available for sustainability and effectiveness of public awareness and education on biosafety.</li> <li>- Without the project Turkey could not establish functional</li> </ul>	<ul style="list-style-type: none"> <li>-Institutional capacity built up to provide sustainable and effective public awareness, education and participation mechanism on biosafety.</li> <li>-National Biosafety CHM became operational</li> </ul>	<ul style="list-style-type: none"> <li>- Functional public awareness and participation system and clearing-house mechanism established</li> </ul>	<ul style="list-style-type: none"> <li>- Cost to GEF Budget "Global benefit": <b>US\$ 53,000</b></li> <li>- Co-finance from the Government: <b>US\$ 101,500</b></li> </ul>
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	public awareness and participation system and clearing- house mechanism.			
		<b>US\$ 80,000</b>	<b>US\$ 234,500</b>	<b>US\$ 154,500</b>
Monitoring and evaluation				<b>US\$ 45,000</b> - Cost to GEF Budget "Global benefit": <b>US\$ 20,000</b>  - Co-finance from the Government: <b>US\$ 25,000</b>
Project management				<b>US\$ 125,000</b> - Cost to GEF Budget "Global benefit": <b>US\$ 50,000</b>  - Co-finance from the Government: <b>US\$ 75,000</b>
<b>Total</b>		<b>US\$ 415,000</b>	<b>US\$ 1,710,000</b>	<b>US\$ 1,295,000</b> - Cost to GEF Budget "Global benefit": <b>US\$ 545,000</b>  - Co-finance from the Government: <b>US\$ 750,000</b>

## Appendix 4: Project Results Framework

Objectives and Outcomes/Outputs	Objectively Verifiable Indicators	Baseline	Indicators (beginning of year 2014)	Means of Verification	Important Assumptions
Objective: Effective implementation of National Biosafety Framework (NBF) that is in line with national biosafety and development priorities, Cartagena Protocol and other international obligations	The entire administrative, legislative and organizational structure ensuring safe use of LMOs or in line with CPB obligations in place	Draft NBF was prepared during 2002 - 2005, but it needs updating	By year 2014, updated NBF is adopted and being implemented effectively	Information on the status of the NBF and its progression towards full implementation will be made available through the regular reporting . project results will be available in project website and BCH.	It is assumed that relevant institutions collaborate effectively during and after the project. Government supports the NBF and biosafety policy is stable.
<b>Outcome 1: Stakeholder and gap analysis with regard to implementation of NBF of Turkey prepared</b>					
<b>Outputs:</b>					
1.1. Stocktaking report that analyses the current status of modern biotechnology and biosafety system	The report on stakeholder and gap analysis including gaps and needs for regional harmonization and consistency where there is potential for reciprocal (transboundary) movement	There is no comprehensive analysis in Turkey, although some information is contained in draft NBF, but it needs updating.	By 2011 stocktaking analysis done	Reporting, Proceedings of meetings, Materials available in project website	It is assumed that the governmental and non-governmental institutions will give attention to the project and actively participated to the stocktaking exercise.
<b>Outcome 2: Regulatory biosafety regime in place and legally mandated</b>					
<b>Outputs:</b>					
2.1. Regulations under Biosafety Law approved	Regulations drafted, agreed with stakeholders and adopted.	Biosafety law adopted in 2010, but needs secondary legislation	By 2011, secondary legislation drafted and adopted by 2012	OJ numbers and dates of regulations as well as their texts are available on project website.	It is assumed that the governmental and non-governmental institutions will give attention to the project and actively participated to the preparation of the regulations.
2.2. National Biosafety Committee (NBC) established	OJ numbers and dates which names and coordinates of NBC members published	There is no NBC in Turkey	By 2011, NBC nominated and functional	Coordinates of the NBC and proceedings its meetings available on website of the project	There is political will and administrative support for mandating of NBC
2.3. Competent authorities (CA) and Scientific Advisory Committee (SAC) mandated	OJ numbers and dates which names and coordinates of competent authorities and Scientific Advisory Committee	National focal point for the Protocol and for BCH had been nominated, but competent authorities have not been mandated yet in	By 2011, competent authorities mandated and functional  By 2011, SAC established and	Coordinates of the competent authorities and SAC and proceedings their meetings available on	There is political will and administrative support for mandating of SAC and CA.

		accordance to Biosafety Law and the Protocol. No SAC established	mandated	website of the project	
<b>2.4.</b> Manual on application procedure under the Law prepared	Manual on application procedure under the Law published	There is no manual on application procedure under the Law	By the end of 2011, manual prepared	Publication of the manual Hard copy of the Manual is available on website of the project	Sub-working Group of the project has appropriate conditions to work effectively
<b>2.5.</b> Training for lawyers undertaken on legal aspects of transboundary movements of LMOs and products thereof and other aspects about use of LMOs	Number of lawyers participated to the training on legal aspects of transboundary movements of LMOs and products thereof.	No lawyers have been trained on issues related to LMOs	By the end of 2011, at least 60 lawyers trained on legal aspects of transboundary movements of LMOs	Proceedings of the training, List of participants	Lawyers interested on the legal aspects of the biosafety issues and participated to the training course.
<b>Outcome 3:</b> Functional system for handling of requests, risk assessment, decision-making and risk management of LMOs established					
<b>Outputs:</b>					
<b>3.1.</b> Human resources for handling of requests, risk assessment, decision-making and risk management of LMOs improved	Improved ability of members of NBC, CA and SAC to handle notifications, to perform risk assessment and decision-making	Capacity for handling of requests and risk assessment is low.	By the 2012 the system for handling of requests, risk assessment and decision-making introduced to the members of NBC, CA and SAC	proceedings of training courses and workshops and list of participants available in project website	It is assumed that relevant institutions collaborate effectively during and after the project.
	Improved human resources to train technical staff at province level to manage risks associated with LMOs	Capacity for risk assessment and risk management is low.	By the 2012 training performed by the help of international consultancy for 11 staff to be mandated to perform local level trainings on risk assessment and risk management	proceedings of training course and list of participants available in project website	It is assumed that positions of the trained personnel have not changed
	Improved capacity of 8(existing) regional research institutes to be act at provincial level to manage risks identified (by informing about protective measures and/or demonstrating some of them to operators (farmers, manufacturers, exc.) involved in various steps of deliberate release of LMOs	There are 8 regional research institutes, but they are not able to manage risks	By the end of 2012, 8 regional trainings performed	proceedings of training courses and workshops and list of participants available in project website	It is assumed that positions of the trained personnel have not changed

<b>3.2.</b> Guidelines, methodologies and manuals on risk assessment and risk management prepared	By the end of 2012, practical guidelines and manuals for risk assessment and risk management,	No guidelines available in local language	By the end of 2012 guidelines and manuals on risk assessment and risk management are published	Guidelines and manuals available in project website	There is institutional collaboration and participation to the working group meetings
<b>3.3.</b> Internet portal, which is accessible by risk assessors, decision-makers and risk managers, prepared and functional for data collection, input and analysis for risk management and risk communication purposes	Functional internet portal for data collection, input and analysis with regard to LMOs	No portal for data collection, input and analysis with regard to LMOs	By 2012 internet portal is functional for data collection, input and analysis with regard to LMOs	Access to the portal	There is institutional collaboration and participation to operate clearing-house mechanism
<b>3.4.</b> Criteria to consider possible socio-economical impacts determined and prioritized to be taken into consideration in the process of decision making	Criteria and priority socio-economical issues to be taken into consideration for decision making	No common understanding on socio-economical evaluation with regard to LMOs	By 2012 booklet on criteria and priority socio-economical issues to be taken into consideration for decision making published	Publications available in project website	There is institutional collaboration and participation to the consultation meeting
<b>Outcome 4: Monitoring and inspection system for LMOs established</b>					
<b>Outputs:</b>					
<b>4.1.</b> Laboratories and research institutes mandated and strengthened for monitoring and inspection	Strengthened capacity of 5 laboratories and 3 research institutes to detect and identify LMOs by purchase of equipments, training of relevant staff and standardization of detection methods	There are 2 functional laboratories to detect LMOs for the purpose of market control and inspection; however this capacity is not enough to prevent illegal environmental release and transboundary movement of LMOs.	By 2012, equipments are purchased (Real Time PCR and Normal Reverse Transcriptase PCR equipments) and methods are standardized to detect LMOs	List of laboratories and institutes, mandated for controls, monitoring and inspections, as well as list of equipments purchased and standard methods available in project website Proceedings and list of participants of training courses are available in project website	It is assumed that the time frame is sufficient to set up institutional arrangements, administrative procedures shortened to purchase equipments and services and technical staff sufficiently involved in the training courses.

<b>4.2.</b> Ankara Control Laboratory accredited for detections of LMOs and detection methods standardized to be used in mandated laboratories	Accreditation certificate of Ankara Control laboratory	No accredited laboratory to verify detection test results	By 2012, Ankara Control Laboratory accredited	Accreditation certificate of Ankara Control laboratory	It is assumed that the time frame is sufficient to set up institutional arrangements, administrative procedures shortened to purchase equipments and services
<b>4.3.</b> Human resources for monitoring, inspections, border controls, emergency response and compliance to Biosafety Law and the Protocol improved	Number of inspectors, controllers and technical staff of research institutes who are able to execute monitoring and inspection system for biosafety improved  Number of Judiciary officials who are able to inspect compliance to Biosafety Law and the Protocol	There are 64 staff trained during the project on preparation of NBFs, but this human resource is not sufficient for effective monitoring and inspection.  Judiciary officials not familiar with Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions	By 2014, four trainings performed on inspection methods, and emergency measures to staff of MARA, operators and local managers; and, four trainings performed on border controls to prevent illegal movements of LMOs to the staff of Undersecretary of Customs and MARA  By 2014, briefing given to Judiciary officials on Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions, to facilitate dispute settlement, handling of court cases and enforcement of Biosafety Law	Proceedings and list of participants of training courses available in project website	It is assumed that relevant institutions collaborate effectively during and after the project.
<b>4.4.</b> Guidelines, methodologies and manuals on monitoring, inspections and emergency response prepared	Guidelines, methodologies, manuals on monitoring, inspections, compliance and emergency response	No guidelines, methodologies, manuals on monitoring, inspections, compliance and emergency response	By 2013, guidelines, and manuals on monitoring, inspections, compliance and emergency response published	Publications available in project website	It is assumed that appropriate consultancy acquired to prepare the guidelines, methodologies, manuals
<b>4.5.</b> Registration system with unique identifiers to trace back LMOs established	Registration system (coding system, which will be harmonized by the system of OECD and EU to determine unique identifier of LMOs, their producers and purpose of market release to be able to trace them in the market)	No system to trace-back LMOs	By 2012 registration system established to trace-back LMOs	registration system available on web site	Technical staffs that will use the registration system are sufficiently involved in the training course.
<b>Outcome 5:</b> Functional system for public awareness and participation established for biosafety					
<b>Outputs:</b>					
<b>5.1</b> Public awareness action	Updated action plan on public	Public awareness action	By 2012, public awareness	Updated action plan on	Managers and technical

plan of NBF updated	awareness and participation	plan was prepared during the project on preparation of NBFs, but needs to be updated and effective implementation.	action plan updated  By 2012 training performed to managers and technical staff to implement action plan	public awareness and participation and list of participants to the training available in project website	staff have willingness to update and implement the action plan
<b>5.2</b> Raise the public awareness through workshops, publications and trainings	Publications and deliberations for public awareness  Percentage of people having opinion about Biosafety , and number of opinions expressed by public about LMO applications	The current situation is not available for sustainability and effectiveness of public awareness and education on biosafety.	At least two info days performed in each year of the project  Public awareness campaign performed during the project  By 2014 publications and materials published and available in national BCH	Publications, proceedings of info days and activities performed in the scope of the campaign and questionnaire available in project website	It is assumed that interest of the public to the biosafety issues will be maintained and even increased during and after the project execution. No stakeholder group will be opposing project activities.
<b>5.3.</b> National BCH strengthened	Number of visits on national BCH	National BCH is not effective	By 2012 national BCH operational	National BCH	It is assumed that appropriate consultancy acquired to strength national BCH













## Appendix 6: Key Deliverables and Benchmark

Key Deliverables (Outputs)	Benchmark
<b>Component 1: Stocktaking on biosafety</b>	
<i>Outcome 1.1. Stakeholder and gap analysis with regard to implementation of NBF of Turkey prepared</i>	
<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>▪ Stocktaking report that analyses the current status of modern biotechnology and biosafety system</li> </ul>	<ul style="list-style-type: none"> <li>▪ Current situation with regard to implementation of NBF (i.e. existing institutions and stakeholders with regard to implementation of NBF in Turkey, gaps and needs for regional harmonization and consistency where there is potential for reciprocal (transboundary) movement, ext) review and reported by national consultant by 1<sup>st</sup> quarter of 2011</li> <li>▪ Findings of the consultant with regard to current situation on biosafety discussed and gaps and needs for implementation of NBF determined by stakeholders in workshop by 2<sup>nd</sup> quarter of 2011</li> <li>▪ Stocktaking report finalized by sub-working group (SWG) basing on the outcomes of consultant report and the workshop by 2<sup>nd</sup> quarter of 2011</li> </ul>
<b>Component 2: Regulatory regime</b>	
<i>Outcome 2.1. Regulatory biosafety regime in place and legally mandated</i>	
<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>▪ Regulations under Biosafety Law approved</li> </ul>	<ul style="list-style-type: none"> <li>▪ Regulations on environmental release, marketing, contained use and transboundary movement of LMOs drafted by working group by the end of 2011, approved and disseminated by 2012</li> </ul>
<ul style="list-style-type: none"> <li>▪ National Biosafety Committee (NBC) established</li> <li>▪ Competent authorities (CA) and Scientific Advisory Committee (SAC) mandated</li> </ul>	<ul style="list-style-type: none"> <li>▪ Regulation on rules and procedures of National Biosafety Committee prepared and approved by the Ministry and members of the NBC appointed by the end of 2011</li> <li>▪ Regular meetings of National Biosafety Committee hold at least twice per year</li> <li>▪ Regulation on establishment and mandating of competent authorities and Scientific Advisory Committee (SAC) prepared and approved by the Ministry by the end of 2011</li> <li>▪ The members of the SAC appointed and regular meetings of SAC hold at least twice per year</li> </ul>
<ul style="list-style-type: none"> <li>▪ Manual on application procedure under the Law prepared</li> <li>• Training for lawyers undertaken on legal aspects of transboundary movements of LMOs and products thereof and other aspects about use of LMOs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Manual on application procedures according to Biosafety Law for use by applicants prepared by SWG, published and disseminated by the end 2011</li> <li>▪ At least 60 lawyers trained on legal aspects of transboundary movements of LMOs by 1<sup>st</sup> quarter of 2012</li> </ul>
<b>Component 3: System for handling of requests for authorization (including administrative processing</b>	

<b>for risk assessment and informed decision-making), risk assessment and risk management</b>	
<b><i>Outcome 3.1. Functional system for handling of requests, risk assessment, decision-making and risk management of LMOs established</i></b>	
<p><b><u>Outputs:</u></b></p> <ul style="list-style-type: none"> <li>▪ Human resources for handling of requests, risk assessment, decision-making and risk management of LMOs improved</li> </ul>	<ul style="list-style-type: none"> <li>▪ The system for handling of requests, risk assessment, decision-making and risk management of LMOs introduced to the members of NBC, CA and SAC by the end of 2011</li> <li>▪ Training course performed for 10-12 trainer technical staff by the assistance of international consultancy on handling of requests, risk assessment and risk management by the end of 2011</li> <li>▪ Regional training courses performed in 8 provinces by trainer technical staff on LMO identification methods and risk analysis of LMOs</li> </ul>
<ul style="list-style-type: none"> <li>▪ Guidelines, methodologies and manuals on risk assessment, risk management and socio-economic evaluation prepared</li> </ul>	<ul style="list-style-type: none"> <li>▪ Current international and regional guidelines, methodologies and manuals for risk assessment, risk management and socio-economic evaluation reviewed and drafts prepared by SWG and national consultant by 1<sup>st</sup> quarter of 2012</li> <li>▪ Drafts of guidelines, methodologies and manuals on risk assessment, risk management and socio-economic evaluation discussed and finalized in working group meeting by 2<sup>nd</sup> quarter of 2012</li> <li>▪ The guidelines, methodologies and manuals published and disseminated by 2<sup>nd</sup> quarter of 2012</li> </ul>
<ul style="list-style-type: none"> <li>▪ Internet portal, which is accessible by risk assessors, decision-makers and risk managers, prepared and functional for data collection, input and analysis for risk management and risk communication purposes</li> </ul>	<ul style="list-style-type: none"> <li>▪ 3 PC purchased to be used for the purpose of management of the information and data on LMOs for risk assessors, decision-makers and risk managers by 2<sup>nd</sup> quarter of 2011</li> <li>▪ Internet portal prepared for data collection, input and analysis for risk management purposes and the staff to operate the portal trained by assistance of private firm by 2<sup>nd</sup> quarter of 2011</li> </ul>
<ul style="list-style-type: none"> <li>• Criteria to consider possible socio-economical impacts determined and prioritized to be taken into consideration in the process of decision making</li> </ul>	<ul style="list-style-type: none"> <li>▪ Case studies on socio-economic consideration of LMOs review by SWG and national consultant by 1<sup>st</sup> quarter of 2012</li> <li>▪ National consultation meeting organized with all key stakeholders, for determination of criteria to consider possible socio-economical impacts of LMOs and identification of priority issues</li> </ul>

	<p>among them to be taken into consideration in decision making process with regard to environmental release of LMOs by 1<sup>st</sup> quarter of 2012</p> <ul style="list-style-type: none"> <li>▪ Criteria and priority socio-economical issues to be taken into consideration for decision making finalized, published and disseminated by 2<sup>nd</sup> quarter of 2012</li> </ul>
<p><b>Component 4: Follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections)</b></p>	
<p><b><i>Outcome 4.1. Monitoring and inspection system for LMOs established</i></b></p>	
<p><b><u>Outputs:</u></b></p> <ul style="list-style-type: none"> <li>▪ Laboratories and research institutes mandated and strengthened for monitoring and inspection</li> <li>▪ Ankara Control Laboratory accredited for detections of LMOs and detection methods standardized to be used in mandated laboratories</li> </ul>	<ul style="list-style-type: none"> <li>▪ Equipments (Real Time PCR and Normal Reverse Transcriptase PCR equipments) purchased to detect LMOs</li> <li>▪ Tests performed by Ankara Control Laboratory for detection and inspections on LMOs and products thereof accredited by assistance of private firm by the end of 2011</li> <li>▪ Detection methods standardized among mandated laboratories by assistance of national consultant by the 1<sup>st</sup> quarter of 2013</li> </ul>
<ul style="list-style-type: none"> <li>▪ Human resources for monitoring, inspections, border controls, emergency response and compliance to Biosafety Law and the Protocol improved</li> </ul>	<ul style="list-style-type: none"> <li>▪ training course performed for 40 trainer inspector on inspection procedures for activities involving LMOs and related legal issues by international consultant by 2012, and training courses performed for at least 80 inspectors by trainer staff by 3<sup>rd</sup> quarter of 2013</li> <li>▪ Training course performed for at least 50 staff on emergency measures in response to unintended release of LMOs, accidents or unforeseen events during transits of LMOs, to monitor LMOs in the environment and in the market, to undertake controls, inspections and research studies on biosafety by 3<sup>rd</sup> quarter of 2013</li> <li>▪ Training course performed for at least 25 Health and Safety Inspectors, Quarantine and Custom officers of MARA on detection of LMOs by 4<sup>th</sup> quarter of 2013</li> <li>▪ Training course performed for at least 50 customs personnel on biosafety measures to be implemented during border controls of goods to prevent illegal transboundary movements of LMOs</li> <li>▪ Meeting organized to inform Judiciary officials on Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions, to facilitate dispute settlement, handling of court cases and enforcement of Biosafety Law by 3<sup>rd</sup> quarter of 2013</li> </ul>

<ul style="list-style-type: none"> <li>▪ Guidelines, methodologies and manuals on monitoring, inspections and emergency response prepared</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultancy purchased to prepare guidelines, methodologies and manuals on monitoring, inspections and emergency response by 2<sup>nd</sup> quarter of 2012</li> <li>▪ Operational manual with checklists for LMO inspectors prepared and disseminated by 1<sup>st</sup> quarter of 2013</li> <li>▪ Guidelines and rules for emergency and accidental releases prepared and disseminated by 1<sup>st</sup> quarter of 2013</li> <li>▪ Guidelines for customs control purposes, including a mechanism for efficient control of transboundary movements of LMOs prepared and disseminated by 2<sup>nd</sup> quarter of 2013</li> <li>▪ Guidelines for monitoring environmental effects of LMOs prepared and disseminated by 2<sup>nd</sup> quarter of 2013</li> </ul>
<ul style="list-style-type: none"> <li>▪ Registration system with unique identifiers to trace back LMOs established</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sub-contract signed with private firm for establishment of registration system with unique identifiers to trace back LMOs placed on the market by 3<sup>rd</sup> quarter of 2011</li> <li>▪ 2 Lecture courses organized about monitoring and surveillance for different target groups (environmental and food inspectorates, local environmental agencies, consumer protection, plant production inspectorates etc) by using the registration system in 2012 and 2013</li> </ul>
<b>Component 5: Public awareness and participation</b>	
<b><i>Outcome 5.1. Functional system for public awareness and participation established for biosafety</i></b>	
<p><b><u>Outputs:</u></b></p> <ul style="list-style-type: none"> <li>▪ Public awareness action plan of NBF updated</li> <li>▪ The public awareness raised through workshops, publications and trainings</li> <li>▪ National BCH strengthened</li> </ul>	<ul style="list-style-type: none"> <li>▪ Public awareness action Plan of NBF revised by SWG and NCC by 2<sup>nd</sup> quarter of 2011</li> <li>▪ Publications, informative materials, newsletters etc on LMOs and biosafety to different society groups prepared and disseminated regularly during the project</li> <li>▪ Training course performed for managers and technical staff of institutions and trainers to ensure their active role in the public awareness and participation activities by 1<sup>st</sup> quarter of 2012</li> <li>▪ Info days, public debates, campaigns for different society groups including farmers, private sector, consumers and media organized regularly during the project</li> <li>▪ Sub-contract signed with governmental agency for inclusion of biosafety issues in academic programmes by 2<sup>nd</sup> quarter of 2011</li> <li>▪ Sub-contract signed with private firm to revise the national BCH for the purposes of making it interoperable with BCH and</li> </ul>

	<p>user-friendly by 2<sup>nd</sup> quarter of 2011</p> <ul style="list-style-type: none"><li data-bbox="847 188 1382 288">▪ Training course performed for the staff mandated to operate national BCH by 1<sup>st</sup> quarter of 2012</li></ul>
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## Results-Based Monitoring and Evaluation Framework

### Appendix 7 - Costed M&E Work Plan Summary

Objective / Outcome <sup>1</sup>	Outcome / objective level indicator <sup>2</sup>	Baseline Conditions <sup>3</sup>	Mid point Target <sup>4</sup> (as relevant)	End of Project Target	Means of Verification <sup>5</sup>	Monitoring / sampling (frequency / size) <sup>6</sup>	Location / Group	Responsibility	Time frame <sup>7</sup>	Budget (Object of expenditure & cost) <sup>8</sup>
<b>COMPONENT 1: Stocktaking &amp; Biosafety Policy</b>										
1.1. Stakeholder and gap analysis with regard to implementation of NBF of Turkey prepared	The report on stakeholder and gap analysis including gaps and needs for regional harmonization and consistency where there is potential for reciprocal movement	- There is no comprehensive analysis in Turkey, although some information is contained in draft NBF, but it needs updating.	-	- By 2011 stocktaking analysis done	- the stocktaking report - proceedings of the workshop	Once in 1 <sup>st</sup> year of the project	- NCC including MARA - Sub-working group of the project -Workshop participants	- MARA (as NEA) - NCC - Consultant	December 2011	\$620(Personnel + communication + reporting cost)

<sup>1</sup> All project outcomes should be included in this column. The objective here is to provide the means to monitor progress in achieving the results set for the life of the project. Goals and long term impact indicators should not be included in this section, but may be discussed in other sections of the project document and M&E plan.

<sup>2</sup> Only key indicators should be included (not more than 2 or 3 per outcome). Appropriate selection of outcome indicators is essential to assess progress in achieving project results.

<sup>3</sup> Please note that if no baseline information for a particular indicator exists it is difficult to justify the targets. Also, please note that baseline data should be collected during the project preparation phase (PPG). If essential baseline data is not complete at the time of Work Program entry (for FSP) or CEO approval (for MSPs) the end of the first year of project implementation is the deadline for collecting the necessary data. The plan for the collection of such baseline data should be added in the next section along with its associated cost.

<sup>4</sup> The mid point target will be reviewed at the Mid-Term Review along with validation of other focal area Tracking Tools. It is acknowledged that mid-point targets may not be relevant to all projects or all project outcomes. Flexibility will be applied.

<sup>5</sup> The means of verification is the source of data that the project team will use to track the indicator (e.g., if the indicator is “forest cover diversity”, the means of verification could be “field surveys data” and “satellite imagery). Reviewing of project reports alone is insufficient.

<sup>6</sup> This column should describe for each indicator the size (e.g., whether entire protected area or only a fraction, or, for example, in the case of a survey, how many people would be covered). The frequency (e.g., once in the lifetime of the project, quarterly during the first year, yearly, etc.)

<sup>7</sup> Expected date (month/year) in which the monitoring activity will take place

<sup>8</sup> For example, 15 satellite images @ \$1,000 each = \$15,000, or 4 field sampling trips by 2 staff @ \$300 each= \$1,200

<b>COMPONENT 2: Enforcement and mandating of regulatory biosafety regime</b>										
2.1. Regulations under Biosafety Law approved	Regulations drafted, agreed with stakeholders and adopted.	Biosafety law adopted in 2010, but needs secondary legislation		Secondary legislation drafted and adopted by 2012	OJ numbers and dates of regulations as well as their texts are available on project website.	Once in 2nd year of the project	- NCC including MARA - Working group meeting participants	- MARA (as NEA) - NCC	December 2012	\$620(Personnel +communication + reporting cost)
2.2. National Biosafety Committee (NBC) established	OJ numbers and dates which names and coordinates of NBC members published	There is no NBC in Turkey	1st meeting of NBC hold at the 4th quarter of 2011	By the end of 2011, NBC nominated and regular meetings hold in every 6 months	Coordinates of the NBC and proceedings its meetings available on website of the project	annual	- NCC including MARA - Sub-working group of the project - NBC	- MARA (as NEA) - NCC	Annually in December	\$1850 (Personnel +communication + reporting cost)
2.3. Competent authorities (CA) and Scientific Advisory Committee (SAC) mandated	OJ numbers and dates which names and coordinates of competent authorities and Scientific Advisory Committee	National focal point for the Protocol and for BCH had been nominated, but competent authorities have not been mandated yet in accordance to Biosafety Law and the Protocol. No SAC established	1st meeting of SAC hold at the 1st quarter of 2012	By 2011, competent authorities mandated and functional  By 2011, SAC established and regular meetings hold in every 6 months	Coordinates of the competent authorities and SAC and proceedings their meetings available on website of the project	annual	- NCC including MARA - Sub-working group of the project - CAs - SAC	- MARA (as NEA) - NCC	Annually in December	\$1850 (Personnel +communication + reporting cost)
2.4. Manual on application procedure under the Law prepared	Manual on application procedure under the Law published	There is no manual on application procedure under the Law		By the end of 2011, manual prepared	Publication of the manual Hard copy of the Manual is available on website of the project	Once in 2nd year of the project	- NCC including MARA - Sub-working group of the project	- MARA (as NEA) - NCC	December 2012	\$620(Personnel +communication + reporting cost)
2.5. Training for lawyers undertaken on legal aspects of transboundary	Number of lawyers participated to the training on legal aspects	No lawyers have been trained on issues related to LMOs		By the end of 2011, at least 60 lawyers trained on legal aspects of	Proceedings of the training, List of participants	Once in 2nd year of the project	- NCC including MARA - Sub-working group of the	- MARA (as NEA) - NCC	December 2012	\$620(Personnel +communication + reporting

movements of LMOs and products thereof and other aspects about use of LMOs	of transboundary movements of LMOs and products thereof.			transboundary movements of LMOs			project -Ministry of Justice			cost)
<b>COMPONENT 3: Establishment of functional system for handling of requests, risk assessment, decision-making and risk management of LMOs</b>										
3.1. Human resources for handling of requests, risk assessment, decision-making and risk management of LMOs improved	- Improved ability of members of NBC, CA and SAC to handle notifications, to perform risk assessment and decision-making - Improved human resources to train technical staff at province level to manage risks associated with LMOs - Improved capacity of 8 (existing) regional research institutes to be act at provincial level to manage risks	- Capacity for handling of requests and risk assessment is low. - Capacity for risk assessment and risk management is low. - There are 8 regional research institutes, but they are not able to manage risks		- By the 2012 the system for handling of requests, risk assessment and decision-making introduced to the members of NBC, CA and SAC - By the 2012 training performed by the help of international consultancy for 11 staff to be mandated to perform local level trainings on risk assessment and risk management - By 2013, 8 regional trainings performed	- Proceedings of training courses and workshops and list of participants available in project website	annual	- NCC including MARA - Sub-working group of the project - Trainer staff - Staff of research institutes	- MARA (as NEA) - NCC - Consultant	Annually in December	\$1850 (Personnel +communication + reporting cost)  \$4000 Visits to regional research institutes by 2 staff (2x8 visit\$250)
3.2. Guidelines, methodologies and manuals on risk assessment and risk management prepared	- By the end of 2012, practical guidelines and manuals for risk assessment and risk management	- No guidelines available in local language		By the end of 2012 guidelines and manuals on risk assessment and risk management are published	Guidelines and manuals available in project website	Once in last year of the project	- NCC including MARA - Sub-working group of the project -Workshop participants	- MARA (as NEA) - NCC - Consultant	December 2013	\$620(Personnel +communication + reporting cost)

3.3. Internet portal, which is accessible by risk assessors, decision-makers and risk managers, prepared and functional for data collection, input and analysis for risk management and risk communication purposes	Functional internet portal for data collection, input and analysis with regard to LMOs	No portal for data collection, input and analysis with regard to LMOs		By 2012 internet portal is functional for data collection, input and analysis with regard to LMOs	Access to the portal	Annual	- NCC including MARA	- MARA (as NEA) - Private firm	Annually in December	\$1850 (Personnel + communication + reporting cost)
3.4. Criteria to consider possible socio-economical impacts determined and prioritized to be taken into consideration in the process of decision making	Criteria and priority socio-economical issues to be taken into consideration for decision making	No common understanding on socio-economical evaluation with regard to LMOs		By 2012 booklet on criteria and priority socio-economical issues to be taken into consideration for decision making published	Publications available in project website	Once in last year of the project	- NCC including MARA - Sub-working group of the project -Workshop participants	- MARA (as NEA) - NCC - Consultant	December 2013	\$620(Personnel + communication + reporting cost)
<b>COMPONENT 4: Establishment of monitoring and inspection system for LMOs</b>										
4.1. Laboratories and research institutes mandated and strengthened for monitoring and inspection	Strengthened capacity of 5 laboratories and 3 research institutes to detect and identify LMOs by purchase of equipments, training of relevant staff and standardization of detection methods	There are 2 functional laboratories to detect LMOs for the purpose of market control and inspection; however this capacity is not enough to prevent illegal environmental release and transboundary movement of LMOs.		By 2012, equipments are purchased (Real Time PCR and Normal Reverse Transcriptase PCR equipments) and methods are standardized to detect LMOs	List of laboratories and institutes, mandated for controls, monitoring and inspections, as well as list of equipments purchased and standard methods available in project website	Annual	- NCC including MARA - Sub-working group of the project	- MARA (as NEA) - NCC	Annually in December	\$2000 Visits to laboratories by 1 staff (1x8laboratoriesx\$250)

4.2. Ankara Control Laboratory accredited for detections of LMOs and detection methods standardized to be used in mandated laboratories	Accreditation certificate of Ankara Control laboratory	No accredited laboratory to verify detection test results		By 2012, Ankara Control Laboratory accredited	Accreditation certificate of Ankara Control laboratory	Once in 1 <sup>st</sup> year of the project	- NCC including MARA - Sub-working group of the project	- MARA (as NEA) - NCC - Consultant	December 2011	\$620(Personnel +communication + reporting cost)
4.3. Human resources for monitoring, inspections, border controls, emergency response and compliance to Biosafety Law and the Protocol improved	- Number of inspectors, controllers and technical staff of research institutes who are able to execute monitoring and inspection system for biosafety  - Number of Judiciary officials who are able to inspect compliance to Biosafety Law and the Protocol	- There are 64 staff trained during the project on preparation of NBFs, but this human resource is not sufficient for effective monitoring and inspection  - Judiciary officials not familiar with Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions	- Trainings performed on inspection methods, and emergency measures to staff of MARA (2012)	- Trainings performed on inspection methods, and emergency measures to staff of MARA, operators and local managers; - Trainings performed on border controls to prevent illegal movements of LMOs to the staff of Undersecretary of Customs and MARA - Briefing given to Judiciary officials on Cartagena Protocol on Biosafety, Biosafety Law and biosafety related definitions, to facilitate dispute settlement, handling of	Proceedings and list of participants of training courses available in project website	Annual except 1 <sup>st</sup> year	- NCC including MARA - Sub-working group of the project -participants of trainings	- MARA (as NEA) - NCC - Consultant -trainers	December 2012 and December 2013	\$1500 (Personnel +communication + reporting cost)

				court cases and enforcement of Biosafety Law						
4.4. Guidelines, methodologies and manuals on monitoring, inspections and emergency response prepared	Guidelines, methodologies, manuals on monitoring, inspections, compliance and emergency response	No guidelines, methodologies, manuals on monitoring, inspections, compliance and emergency response		By 2013, guidelines, and manuals on monitoring, inspections, compliance and emergency response published	Publications available in project website	Once in 3rd year of the project	- NCC including MARA - all stakeholders	- MARA (as NEA) - NCC - Consultant	December 2013	\$620(Personnel +communication + reporting cost)
4.5. Registration system with unique identifiers to trace back LMOs established	Registration system	No system to trace-back LMOs		By 2012 registration system established to trace-back LMOs	Registration system available on web site	Annual	- NCC including MARA - participants of trainings - Stakeholders	- MARA (as NEA) - NCC - consultant	Annually in December	\$1850 (Personnel +communication + reporting cost)
<b>COMPONENT 5: Establishment of functional system for public awareness and participation for biosafety</b>										
5.1 Public awareness action plan of NBF updated	Updated action plan on public awareness and participation	Public awareness action plan was prepared during the project on preparation of NBFs, but needs to be updated and effective implementation.		By 2012, public awareness action plan updated  By 2012 training performed to managers and technical staff to implement action plan	Updated action plan on public awareness and participation and list of participants to the training available in project website	Annual	- NCC including MARA - Sub-working group of the project -participants of trainings	- MARA (as NEA) - NCC	Annually in December	\$1850 (Personnel +communication + reporting cost)
5.2 Raise the public awareness through workshops, publications and trainings	Publications and deliberations for public awareness  Percentage of people having opinion about Biosafety , and number of	The current situation is not available for sustainability and effectiveness of public awareness and education on biosafety.		At least two info days performed in each year of the project  Public awareness campaign performed during the project	Publications, proceedings of info days and activities performed in the scope of the campaign and questionnaire available in project website	Annual	- NCC including MARA - Sub-working group of the project - all stakeholders	- MARA (as NEA) - NCC	Annually in December	\$1850 (Personnel +communication + reporting cost)

	opinions expressed by public about LMO applications			By 2014 publications and materials published and available in national BCH						
5.3. National BCH strengthened	Number of visits on national BCH	National BCH is not effective		By 2012 national BCH operational	National BCH	Annual	- NCC including MARA - Sub-working group of the project - all stakeholders	- MARA (as NEA) - NCC - private firm	Annually in December	\$1850 (Personnel + communication + reporting cost)

1. Monitoring Framework and Budget <sup>9</sup>

2. Cost of acquisition of essential baseline data during first year of project<sup>10</sup>:

The baseline data was already collected as a part of the PPG activities.

3. Cost of project inception workshop (please include proposed location, number of participants):

To be carried out in Ankara, with ~50 participants without cost to GEF. Cost to Government is expected to be US \$ 2,500 and included in M&E budget.

4. Cost of Mid-Term Review/Evaluation:

The midterm review will be undertaken by assistance of international consultancy and it is estimated to cost US\$4,000

5. Cost of Terminal Evaluation:

The terminal evaluation will be undertaken by assistance of international consultancy (technical) plus final audit and it is estimated to cost US\$ 7,000

6. Any additional M&E costs <sup>11</sup>:

Annual review Budget is expected to be US\$31,500, this figure includes a GEF contribution of US\$ 9,000 (\$3000 is annual audit by independent inspector) and a government co-finance of US\$ 22,500

<sup>9</sup> Detailed monitoring plan should be included in the M&E project section. This table is primarily intended to reflect how the outcome level indicators will be tracked to facilitate monitoring of **results** (as opposed to monitoring of project implementation progress). The implementation of the Results-based Monitoring Framework will be assessed at mid point and at end of project (through the Mid-Term review and Terminal Evaluation processes). The quality of M&E implementation will be rated with the Project Implementation Review (PIR). The contents of this table should be validated and agreed upon at the project inception meeting.

<sup>10</sup> Refer to detailed M&E work plan for additional information on what data will be collected and what activities will be undertaken. The data to be collected needs to be consistent with the indicators included in the table above.

<sup>11</sup> Please describe the activity and included the expected cost. Additional M&E costs could be related to the following: (i) Additional reviews and evaluation processes for phased and tranced projects; (ii) application & validation of tracking tools.

**Total costs (this figure should be included in the consolidated project budget and in the request for CEO endorsement/approval in the M&E budget line):**

The total cost for M&E is estimated to as US \$45,000 and has been included in the consolidated project budget. This figure include a GEF contribution of US \$20,000 and a government contribution of US\$ 25,000 for monitoring and reporting of the project

## Appendix 8 – Reporting requirements

<b>Appendix 8 – Reporting requirements</b>	<b>Due date</b>	<b>Format appended to legal instrument as</b>	<b>Responsibility of</b>
Procurement plan (goods and services)	2 weeks before project inception meeting	N/A	National Project Coordinator
Inception Report	1 month after project inception meeting	N/A	National Project Coordinator
Expenditure report accompanied by explanatory notes	Quarterly on or before 30 April, 31 July, 31 October, 31 January	<b>Annex 11</b>	National Project Coordinator
Cash Advance request and details of anticipated disbursements	Quarterly or when required	<b>Annex 7B</b>	National Project Coordinator
Progress report	Half-yearly on or before 31 January	<b>Annex 8</b>	National Project Coordinator
Audited report for expenditures for year ending 31 December	Yearly on or before 30 June	N/A	Executing partner to contract firm
Inventory of non-expendable equipment	Yearly on or before 31 January	<b>Annex 6</b>	National Project Coordinator
Co-financing report	Yearly on or before 31 July	<b>Annex 12</b>	National Project Coordinator
Project implementation review (PIR) report	Yearly on or before 31 August	<b>Annex 9</b>	Project Manager, TM, DGEF FMO
Minutes of steering committee meetings	Yearly (or as relevant)	N/A	National Project Coordinator
Mission reports and “aide memoire” for executing agency	Within 2 weeks of return	N/A	TM, DGEF FMO
Final report	2 months of project completion date	<b>Annex 10</b>	National Project Coordinator
Final inventory of non-expendable equipment		<b>Annex 9</b>	National Project Coordinator
Equipment transfer letter		<b>Annex 10</b>	National Project Coordinator
Final expenditure statement	3 months of project completion date	<b>Annex 11</b>	National Project Coordinator
Mid-term review or Mid-term evaluation	Midway though project	N/A	TM or EOU (as relevant)
Final audited report for expenditures of project	6 months of project completion date	N/A	Executing partner to contract firm
Independent terminal evaluation report	6 months of project completion date	<b>Appendix 9 to Annex 1</b>	EOU

**APPENDIX 9 - STANDARD TERMINAL EVALUATION TERMS OF REFERENCE**

**Terminal Evaluation of the UNEP GEF project “Support for Implementation of the National Biosafety Framework for Turkey**

**1. PROJECT BACKGROUND AND OVERVIEW**

**Project rationale**

*The objective was stated as:* The Overall Goal of the project is that by 2014, Turkey has updated National Biosafety Framework (NBF) that is in line with national biosafety and development priorities, Cartagena Protocol and other international obligations and NBF is adopted and being implemented effectively.

*The indicators given in the project document for this stated objective were:*

As listed in Results Framework (appendix 4) to the project document.

**Relevance to GEF Programmes**

The project is in line with: GEF IV Strategic Programme 6 (BD-SP6) - Biosafety

**Executing Arrangements**

The implementing agency for this project is UNEP and the national executing agency is the Ministry of Agriculture and Rural Affairs (General Directorate of Agricultural Research).

**Project Activities**

The project comprised activities grouped in 5 components in the addition to the Project Management and M&E.

**Budget**

At project inception the following budget prepared:

	<u>GEF</u>	<u>Co-funding</u>
Project preparation funds:		
GEF Medium Size Grant	<b>\$545,000</b>	\$750,000
<b>TOTAL (including project preparation funds)</b>	<b>\$545,000</b>	<b>\$750,000</b>

**Co-funding sources:**

1)	Government in-kind	\$ 200 000
2)	Government in cash	\$ 550 000

**Anticipated:**

**APPENDIX 9: TERMS OF REFERENCE FOR THE EVALUATION**

**1. Objective and Scope of the Evaluation**

The objective of this terminal evaluation is to examine the extent and magnitude of any project impacts to date and determine the likelihood of future impacts. The evaluation will also assess project performance and the implementation of planned project activities and planned outputs against actual results. The evaluation will focus on the following main questions:

1. Did the project help to build awareness among key target audiences (international conventions and initiatives, national level policy-makers, regional and local policy-makers, resource managers and practitioners).
2. Did the outputs of the project articulate options and recommendations for mainstreaming of biosafety into the national policies/plans? Were these options and recommendations used? If so by whom?
3. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers and other key audiences?

**Methods**

This terminal evaluation will be conducted as an in-depth evaluation using a participatory approach whereby the UNEP/DGEF Task Manager, key representatives of the executing agencies and other relevant staff are kept informed and consulted throughout the evaluation. The consultant will liaise with the UNEP/EOU and the UNEP/DGEF Task Manager on any logistic and/or methodological issues to properly conduct the review in as independent a way as possible, given the circumstances and resources offered. The draft report will be circulated to UNEP/DGEF Task Manager, key representatives of the executing agencies and the UNEP/EOU. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary or suggested revisions.

The findings of the evaluation will be based on the following:

1. A desk review of project documents including, but not limited to:
  - (a) The project documents, outputs, monitoring reports (such as progress and financial reports to UNEP and GEF annual Project Implementation Review reports) and relevant correspondence.
  - (b) Notes from the Steering Group meetings.
  - (c) Other project-related material produced by the project staff or partners.
  - (d) Relevant material published on the project web-site: [www.biosafety.gov.mk](http://www.biosafety.gov.mk)
2. Interviews with project management and technical support including members of the National Coordination Committee
3. Interviews and Telephone interviews with intended users for the project outputs and other stakeholders involved with this project, including in the participating countries and international bodies. The Consultant shall determine whether to seek additional information and opinions from representatives of donor agencies and other organizations. As appropriate, these interviews could be combined with an email questionnaire.
4. Interviews with the UNEP/DGEF project task manager and Fund Management Officer, and other relevant staff in UNEP dealing with Biodiversity (Biosafety) -related activities as necessary. The Consultant shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

5. Field visits<sup>1</sup> to project staff

**Key Evaluation principles.**

In attempting to evaluate any outcomes and impacts that the project may have achieved, evaluators should remember that the project's performance should be assessed by considering the difference between the answers to two simple questions "*what happened?*" and "*what would have happened anyway?*". These questions imply that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. In addition it implies that there should be plausible evidence to **attribute** such outcomes and impacts **to the actions of the project**.

Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluator, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

**2. Project Ratings**

The success of project implementation will be rated on a scale from 'highly unsatisfactory' to 'highly satisfactory'. In particular the evaluation shall **assess and rate** the project with respect to the eleven categories defined below:<sup>2</sup>

**A. Attainment of objectives and planned results:**

The evaluation should assess the extent to which the project's major relevant objectives were effectively and efficiently achieved or are expected to be achieved and their relevance.

- *Effectiveness:* Evaluate how, and to what extent, the stated project objectives have been met, taking into account the "achievement indicators". The analysis of outcomes achieved should include, *inter alia*, an assessment of the extent to which the project has directly or indirectly assisted policy and decision-makers to apply information supplied by biodiversity indicators in their national planning and decision-making. In particular:
  - Evaluate the immediate impact of the project on Biodiversity (Biosafety) monitoring and in national planning and decision-making and international understanding and use of biodiversity indicators.
  - As far as possible, also assess the potential longer-term impacts considering that the evaluation is taking place upon completion of the project and that longer term impact is expected to be seen in a few years time. Frame recommendations to enhance future project impact in this context. Which will be the major 'channels' for longer term impact from the project at the national and international scales?
- *Relevance:* In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies? Ascertain the nature and significance of the contribution of the project outcomes to the Cartagena Protocol on Biosafety and the Convention on Biological Diversity and the wider portfolio of the GEF.
- *Efficiency:* Was the project cost effective? Was the project the least cost option? Was the project implementation delayed and if it was, then did that affect cost-effectiveness? Assess the contribution of cash and in-kind co-financing to project implementation and to what extent the project leveraged additional resources. Did the project build on earlier initiatives, did it make effective use of available scientific and / or technical information. Wherever possible, the evaluator should also compare the cost-time vs. outcomes relationship of the project with that of other similar projects.

**B. Sustainability:**

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<sup>1</sup> Evaluators should make a brief courtesy call to GEF Country Focal points during field visits if at all possible.

<sup>2</sup> However, the views and comments expressed by the evaluator need not be restricted to these items.

Sustainability is understood as the probability of continued long-term project-derived outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. Some of these factors might be outcomes of the project, e.g. stronger institutional capacities or better informed decision-making. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes. The evaluation should ascertain to what extent follow-up work has been initiated and how project outcomes will be sustained and enhanced over time.

Five aspects of sustainability should be addressed: financial, socio-political, institutional frameworks and governance, environmental (if applicable). The following questions provide guidance on the assessment of these aspects:

- *Financial resources.* Are there any financial risks that may jeopardize sustenance of project outcomes? What is the likelihood that financial and economic resources will not be available once the GEF assistance ends (resources can be from multiple sources, such as the public and private sectors, income generating activities, and trends that may indicate that it is likely that in future there will be adequate financial resources for sustaining project's outcomes)? To what extent are the outcomes of the project dependent on continued financial support?
- *Socio-political:* Are there any social or political risks that may jeopardize sustenance of project outcomes? What is the risk that the level of stakeholder ownership will be insufficient to allow for the project outcomes to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
- *Institutional framework and governance.* To what extent is the sustenance of the outcomes of the project dependent on issues relating to institutional frameworks and governance? What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for, the project outcomes/benefits to be sustained? While responding to these questions consider if the required systems for accountability and transparency and the required technical know-how are in place.
- *Environmental.* Are there any environmental risks that can undermine the future flow of project environmental benefits? The TE should assess whether certain activities in the project area will pose a threat to the sustainability of the project outcomes. For example; construction of dam in a protected area could inundate a sizable area and thereby neutralize the biodiversity-related gains made by the project; or, a newly established pulp mill might jeopardise the viability of nearby protected forest areas by increasing logging pressures; or a vector control intervention may be made less effective by changes in climate and consequent alterations to the incidence and distribution of malarial mosquitoes.

### C. **Achievement of outputs and activities:**

- Delivered outputs: Assessment of the project's success in producing each of the programmed outputs, both in quantity and quality as well as usefulness and timeliness.
- Assess the soundness and effectiveness of the methodologies used for developing the technical documents and related management options in the participating countries
- Assess to what extent the project outputs produced have the weight of scientific authority / credibility, necessary to influence policy and decision-makers, particularly at the national level.

### D. **Catalytic Role**

Replication and catalysis. What examples are there of replication and catalytic outcomes? Replication approach, in the context of GEF projects, is defined as lessons and experiences

coming out of the project that are replicated or scaled up in the design and implementation of other projects. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources). Specifically:

- Do the recommendations for management of {project} coming from the country studies have the potential for application in other countries and locations?

If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out.

### **E. Assessment monitoring and evaluation systems.**

The evaluation shall include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The Terminal Evaluation will assess whether the project met the minimum requirements for ‘project design of M&E’ and ‘the application of the Project M&E plan’ (see minimum requirements 1&2 in *Annex 4* to this Appendix). GEF projects must budget adequately for execution of the M&E plan, and provide adequate resources during implementation of the M&E plan. Project managers are also expected to use the information generated by the M&E system during project implementation to adapt and improve the project.

### **M&E during project implementation**

- *M&E design.* Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators (see Annex 4) and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified.
- *M&E plan implementation.* A Terminal Evaluation should verify that: an M&E system was in place and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period (perhaps through use of a logframe or similar); annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings; that the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs; and that projects had an M&E system in place with proper training for parties responsible for M&E activities.
- *Budgeting and Funding for M&E activities.* The terminal evaluation should determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.

### **F. Preparation and Readiness**

Were the project’s objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place?

### **G. Country ownership / drivenness:**

This is the relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements. The evaluation will:

- Assess the level of country ownership. Specifically, the evaluator should assess whether the project was effective in providing and communicating biodiversity

information that catalyzed action in participating countries to improve decisions relating to the conservation and management of the focal ecosystem in each country.

- Assess the level of country commitment to the generation and use of biodiversity indicators for decision-making during and after the project, including in regional and international fora.

### **H. Stakeholder participation / public awareness:**

This consists of three related and often overlapping processes: information dissemination, consultation, and “stakeholder” participation. Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the GEF- financed project. The term also applies to those potentially adversely affected by a project. The evaluation will specifically:

- Assess the mechanisms put in place by the project for identification and engagement of stakeholders in each participating country and establish, in consultation with the stakeholders, whether this mechanism was successful, and identify its strengths and weaknesses.
- Assess the degree and effectiveness of collaboration/interactions between the various project partners and institutions during the course of implementation of the project.
- Assess the degree and effectiveness of any various public awareness activities that were undertaken during the course of implementation of the project.

### **I. Financial Planning**

Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project’s lifetime. Evaluation includes actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co- financing. The evaluation should:

- Assess the strength and utility of financial controls, including reporting, and planning to allow the project management to make informed decisions regarding the budget and allow for a proper and timely flow of funds for the payment of satisfactory project deliverables.
- Present the major findings from the financial audit if one has been conducted.
- Identify and verify the sources of co- financing as well as leveraged and associated financing (in co-operation with the IA and EA).
- Assess whether the project has applied appropriate standards of due diligence in the management of funds and financial audits.
- The evaluation should also include a breakdown of final actual costs and co- financing for the project prepared in consultation with the relevant UNEP/DGEF Fund Management Officer of the project (table attached in *Annex 1* to this Appendix Co- financing and leveraged resources).

### **J. Implementation approach:**

This includes an analysis of the project’s management framework, adaptation to changing conditions (adaptive management), partnerships in implementation arrangements, changes in project design, and overall project management. The evaluation will:

- Ascertain to what extent the project implementation mechanisms outlined in the project document have been closely followed. In particular, assess the role of the various committees established and whether the project document was clear and realistic to enable effective and efficient implementation, whether the project was executed according to the plan and how well the management was able to adapt to changes during the life of the project to enable the implementation of the project.
- Evaluate the effectiveness and efficiency and adaptability of project management and the supervision of project activities / project execution arrangements at all levels (1) policy decisions: Steering Group; (2) day to day project management in each of the country executing agencies and the Ministry of Environment, Forest and Tourism.

**K. UNEP Supervision and Backstopping**

- Assess the effectiveness of supervision and administrative and financial support provided by UNEP/DGEF.
- Identify administrative, operational and/or technical problems and constraints that influenced the effective implementation of the project.

The *ratings will be presented in the form of a table*. Each of the eleven categories should be rated separately with **brief justifications** based on the findings of the main analysis. An overall rating for the project should also be given. The following rating system is to be applied:

HS	= Highly Satisfactory
S	= Satisfactory
MS	= Moderately Satisfactory
MU	= Moderately Unsatisfactory
U	= Unsatisfactory
HU	= Highly Unsatisfactory

**3. Evaluation report format and review procedures**

The report should be brief, to the point and easy to understand. It must explain; the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should be presented in a way that makes the information accessible and comprehensible and include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

**The evaluation will rate the overall implementation success of the project and provide individual ratings of the eleven implementation aspects as described in Section 1 of this TOR. *The ratings will be presented in the format of a table with brief justifications based on the findings of the main analysis.***

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. Any dissident views in response to evaluation findings will be appended in an annex. The evaluation report shall be written in English, be of no more than 50 pages (excluding annexes), use numbered paragraphs and include:

- i) An **executive summary** (no more than 3 pages) providing a brief overview of the main conclusions and recommendations of the evaluation;
- ii) **Introduction and background** giving a brief overview of the evaluated project, for example, the objective and status of activities; The GEF Monitoring and Evaluation Policy, 2006, requires that a TE report will provide summary information on when the evaluation took place; places visited; who was involved; the key questions; and, the methodology.
- iii) **Scope, objective and methods** presenting the evaluation's purpose, the evaluation criteria used and questions to be addressed;
- iv) **Project Performance and Impact** providing *factual evidence* relevant to the questions asked by the evaluator and interpretations of such evidence. This is the main substantive section of the report. The evaluator should provide a commentary and analysis on all eleven evaluation aspects (A – K above).
- v) **Conclusions and rating** of project implementation success giving the evaluator's concluding assessments and ratings of the project against given evaluation criteria and standards of performance. The conclusions should provide answers to questions about whether the project is considered good or bad, and whether the results are considered

positive or negative. The ratings should be provided with a brief narrative comment in a table (see *Annex 1* to this Appendix);

- vi) **Lessons (to be) learned** presenting general conclusions from the standpoint of the design and implementation of the project, based on good practices and successes or problems and mistakes. Lessons should have the potential for wider application and use. All lessons should ‘stand alone’ and should:
- Briefly describe the context from which they are derived
  - State or imply some prescriptive action;
  - Specify the contexts in which they may be applied (if possible, who when and where)
- vii) **Recommendations** suggesting *actionable* proposals for improvement of the current project. In general, Terminal Evaluations are likely to have very few (perhaps two or three) actionable recommendations.

*Prior to each recommendation*, the issue(s) or problem(s) to be addressed by the recommendation should be clearly stated.

A high quality recommendation is an actionable proposal that is:

1. Feasible to implement within the timeframe and resources available
2. Commensurate with the available capacities of project team and partners
3. Specific in terms of who would do what and when
4. Contains results-based language (i.e. a measurable performance target)
5. Includes a trade-off analysis, when its implementation may require utilizing significant resources that would otherwise be used for other project purposes.

- viii) **Annexes** may include additional material deemed relevant by the evaluator but must include:
1. The Evaluation Terms of Reference,
  2. A list of interviewees, and evaluation timeline
  3. A list of documents reviewed / consulted
  4. Summary co-finance information and a statement of project expenditure by activity
  5. The expertise of the evaluation team.

TE reports will also include any response / comments from the project management team and/or the country focal point regarding the evaluation findings or conclusions as an annex to the report, however, such will be appended to the report by UNEP EOU.

Examples of UNEP GEF Terminal Evaluation Reports are available at [www.unep.org/eou](http://www.unep.org/eou)

### **Review of the Draft Evaluation Report**

Draft reports submitted to UNEP EOU are shared with the corresponding Programme or Project Officer and his or her supervisor for initial review and consultation. The DGEF staff and senior Executing Agency staff are allowed to comment on the draft evaluation report. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks feedback on the proposed recommendations. UNEP EOU collates all review comments and provides them to the evaluators for their consideration in preparing the final version of the report.

### **4. Submission of Final Terminal Evaluation Reports.**

The final report shall be submitted in electronic form in MS Word format and should be sent to the following persons:

Segbedzi Norgbey, Chief,  
UNEP Evaluation and Oversight Unit  
P.O. Box 30552-00100  
Nairobi, Kenya

Tel.: +(254-20)762-4181  
Fax: +(254-20)762-3158  
Email: [Segbedzi.Norgbey@unep.org](mailto:Segbedzi.Norgbey@unep.org)

With a copy to:

Maryam Niamir-Fuller,  
Director  
UNEP/Division of GEF Coordination  
P.O. Box 30552-00100  
Nairobi, Kenya  
Tel: +(254-20)762-4166  
Fax: +(254-20)762-4041/2  
Email: [Maryam.Niamir-Fuller@unep.org](mailto:Maryam.Niamir-Fuller@unep.org)

The Final evaluation will also be copied to the following GEF National Focal Points.

Prof. Dr. Hasan Zuhuri SARIKAYA  
Undersecretary  
Ministry of Environment and Forestry  
Söğütözü Cad 14/E ANKARA-TURKEY  
Tel: +90 312 207 62 53  
Fax. +90 312 20763 03  
Email: [mustesar@cevreorman.gov.tr](mailto:mustesar@cevreorman.gov.tr)

The final evaluation report will be published on the Evaluation and Oversight Unit's web-site [www.unep.org/eou](http://www.unep.org/eou) and may be printed in hard copy. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.

##### **5. Resources and schedule of the evaluation**

This final evaluation will be undertaken by an international evaluator contracted by the Evaluation and Oversight Unit, UNEP. The contract for the evaluator will begin on **ddmmyy** and end on **ddmmyyy** (**#** days) spread over **#** weeks (**#** days of travel, to **{country(ies)}**, and **#** days desk study). The evaluator will submit a draft report on **ddmmyyy** to UNEP/EOU, the UNEP/DGEF Task Manager, and key representatives of the executing agencies. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary revisions. Comments to the final draft report will be sent to the consultant by **ddmmyyy** after which, the consultant will submit the final report no later than **ddmmyyy**.

The evaluator will after an initial telephone briefing with EOU and UNEP/GEF conduct initial desk review work and later travel to **{country(ies)}** and meet with project staff at the beginning of the evaluation. Furthermore, the evaluator is expected to travel to **{country(ies)}** and meet with representatives of the project executing agencies and the intended users of project's outputs.

In accordance with UNEP/GEF policy, all GEF projects are evaluated by independent evaluators contracted as consultants by the EOU. The evaluator should have the following qualifications:

The evaluator should not have been associated with the design and implementation of the project in a paid capacity. The evaluator will work under the overall supervision of the Chief, Evaluation and Oversight Unit, UNEP. The evaluator should be an international expert in **{ }** with a sound understanding of **{ }** issues. The consultant should have the following minimum qualifications: (i) experience in **{ }** issues; (ii) experience with management and implementation of **{ }** projects and in particular with **{ }** targeted at policy-influence and decision-making; (iii) experience with project evaluation. Knowledge of UNEP programmes and GEF activities is desirable. Knowledge of **{specify language(s)}** is an advantage. Fluency in oral and written English is a must.

**6. Schedule Of Payment**

The consultant shall select one of the following two contract options:

**Lump-Sum Option**

The evaluator will receive an initial payment of 30% of the total amount due upon signature of the contract. A further 30% will be paid upon submission of the draft report. A final payment of 40% will be made upon satisfactory completion of work. The fee is payable under the individual Special Service Agreement (SSA) of the evaluator and **is inclusive** of all expenses such as travel, accommodation and incidental expenses.

**Fee-only Option**

The evaluator will receive an initial payment of 40% of the total amount due upon signature of the contract. Final payment of 60% will be made upon satisfactory completion of work. The fee is payable under the individual SSAs of the evaluator and is **NOT** inclusive of all expenses such as travel, accommodation and incidental expenses. Ticket and DSA will be paid separately.

In case, the evaluator cannot provide the products in accordance with the TORs, the timeframe agreed, or his products are substandard, the payment to the evaluator could be withheld, until such a time the products are modified to meet UNEP's standard. In case the evaluator fails to submit a satisfactory final product to UNEP, the product prepared by the evaluator may not constitute the evaluation report.

*Annex 1 to Appendix 9: OVERALL RATINGS TABLE*

<b>Criterion</b>	<b>Evaluator's Summary Comments</b>	<b>Evaluator's Rating</b>
<b>A. Attainment of project objectives and results (overall rating)</b> <b>Sub criteria (below)</b>		
A. 1. Effectiveness		
A. 2. Relevance		
A. 3. Efficiency		
<b>B. Sustainability of Project outcomes (overall rating)</b> <b>Sub criteria (below)</b>		
B. 1. Financial		
B. 2. Socio Political		
B. 3. Institutional framework and governance		
B. 4. Ecological		
<b>C. Achievement of outputs and activities</b>		
<b>D. Monitoring and Evaluation (overall rating)</b> <b>Sub criteria (below)</b>		
D. 1. M&E Design		
D. 2. M&E Plan Implementation (use for adaptive management)		
D. 3. Budgeting and Funding for M&E activities		
<b>E. Catalytic Role</b>		
<b>F. Preparation and readiness</b>		
<b>G. Country ownership / drivenness</b>		
<b>H. Stakeholders involvement</b>		
<b>I. Financial planning</b>		
<b>J. Implementation approach</b>		
<b>K. UNEP Supervision and backstopping</b>		

**RATING OF PROJECT OBJECTIVES AND RESULTS**

Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Please note:** Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

### **RATINGS ON SUSTAINABILITY**

A. Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The Terminal evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

#### Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

Likely (L): There are no risks affecting this dimension of sustainability.

Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.

Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability

Unlikely (U): There are severe risks that affect this dimension of sustainability.

According to the GEF Office of Evaluation, all the risk dimensions of sustainability are deemed critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in any of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

### **RATINGS OF PROJECT M&E**

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

Highly Satisfactory (HS): There were no shortcomings in the project M&E system.

Satisfactory(S): There were minor shortcomings in the project M&E system.

Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.

Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.

Unsatisfactory (U): There were major shortcomings in the project M&E system.

Highly Unsatisfactory (HU): The Project had no M&E system.

## Annex 1: Project Document

“M&E plan implementation” will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on “M&E plan implementation.”

All other ratings will be on the GEF six point scale.

GEF Performance Description	Alternative description on the same scale
HS = Highly Satisfactory	Excellent
S = Satisfactory	Well above average
MS = Moderately Satisfactory	Average
MU = Moderately Unsatisfactory	Below Average
U = Unsatisfactory	Poor
HU = Highly Unsatisfactory	Very poor (Appalling)

## Annex 2 to Appendix 9: Co-financing and Leveraged Resources

Co financing (Type/Source)	IA own Financing (mill US\$)		Government (mill US\$)		Other* (mill US\$)		Total (mill US\$)		Total Disbursement (mill US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
– Grants										
– Loans/Concessional (compared to market rate)										
– Credits										
– Equity investments										
– In-kind support										
– Other (*)										
–										
–										
–										
–										
<b>Totals</b>										

*Co-financing (basic data to be supplied to the consultant for verification)*

\* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

***Leveraged Resources***

Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector. Please briefly describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective.

**Table showing final actual project expenditure by activity to be supplied by the UNEP Fund management Officer. (insert here)**

## Annex 3 to Appendix 9

**Review of the Draft Report**

Draft reports submitted to UNEP EOU are shared with the corresponding Programme or Project Officer and his or her supervisor for initial review and consultation. The DGEF staff and senior Executing Agency staff provide comments on the draft evaluation report. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. UNEP EOU collates the review comments and provides them to the evaluators for their consideration in preparing the final version of the report. General comments on the draft report with respect to compliance with these TOR are shared with the reviewer.

**Quality Assessment of the Evaluation Report**

All UNEP GEF Mid Term Reports are subject to quality assessments by UNEP EOU. These apply GEF Office of Evaluation quality assessment and are used as a tool for providing structured feedback to the evaluator.

The quality of the draft evaluation report is assessed and rated against the following criteria:

<b>GEF Report Quality Criteria</b>	<b>UNEP EOU Assessment</b>	<b>Rating</b>
A. Did the report present an assessment of relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable?		
B. Was the report consistent and the evidence complete and convincing and were the ratings substantiated when used?		
C. Did the report present a sound assessment of sustainability of outcomes?		
D. Were the lessons and recommendations supported by the evidence presented?		
E. Did the report include the actual project costs (total and per activity) and actual co-financing used?		
F. Did the report include an assessment of the quality of the project M&E system and its use for project management?		
<b>UNEP EOU additional Report Quality Criteria</b>	<b>UNEP EOU Assessment</b>	<b>Rating</b>
G. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
H. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented? Did the recommendations specify a goal and an associated performance indicator?		
I. Was the report well written? (clear English language and grammar)		
J. Did the report structure follow EOU guidelines, were all requested Annexes included?		
K. Were all evaluation aspects specified in the TORs adequately addressed?		
L. Was the report delivered in a timely manner		

**GEF Quality of the MTE report = 0.3\*(A + B) + 0.1\*(C+D+E+F)**

**EOU assessment of MTE report = 0.3\*(G + H) + 0.1\*(I+J+K+L)**

**Combined quality Rating = (2\* 'GEF EO' rating + EOU rating)/3**

The Totals are rounded and converted to the scale of HS to HU

Rating system for quality of terminal evaluation reports

1A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.



*Annex 4 to Appendix 9****GEF Minimum requirements for M&E******Minimum Requirement 1: Project Design of M&E<sup>3</sup>***

All projects must include a concrete and fully budgeted monitoring and evaluation plan by the time of Work Program entry (full-sized projects) or CEO approval (medium-sized projects). This plan must contain at a minimum:

- SMART (see below) indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, corporate-level indicators
- A project baseline, with:
  - a description of the problem to address
  - indicator data
  - or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation
- An M&E Plan with identification of reviews and evaluations which will be undertaken, such as mid-term reviews or evaluations of activities
- An organizational setup and budgets for monitoring and evaluation.

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<sup>3</sup> <http://gefweb.org/MonitoringandEvaluation/MEPoliciesProcedures/MEPTools/meptstandards.html>

***Minimum Requirement 2: Application of Project M&E***

- Project monitoring and supervision will include implementation of the M&E plan, comprising:
- Use of SMART indicators for implementation (or provision of a reasonable explanation if not used)
- Use of SMART indicators for results (or provision of a reasonable explanation if not used)
- Fully established baseline for the project and data compiled to review progress
- Evaluations are undertaken as planned
- Operational organizational setup for M&E and budgets spent as planned.

**SMART INDICATORS** GEF projects and programs should monitor using relevant performance indicators. The monitoring system should be “SMART”:

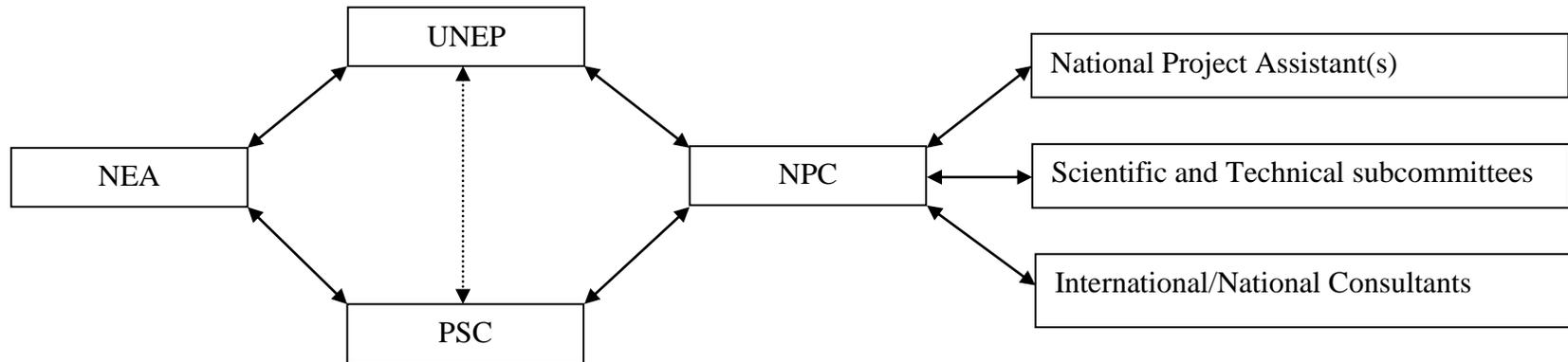
1. **Specific:** The system captures the essence of the desired result by clearly and directly relating to achieving an objective, and only that objective.
2. **Measurable:** The monitoring system and its indicators are unambiguously specified so that all parties agree on what the system covers and there are practical ways to measure the indicators and results.
3. **Achievable and Attributable:** The system identifies what changes are anticipated as a result of the intervention and whether the result(s) are realistic. Attribution requires that changes in the targeted developmental issue can be linked to the intervention.
4. **Relevant and Realistic:** The system establishes levels of performance that are likely to be achieved in a practical manner, and that reflect the expectations of stakeholders.
5. **Time-bound, Timely, Trackable, and Targeted:** The system allows progress to be tracked in a cost-effective manner at desired frequency for a set period, with clear identification of the particular stakeholder group to be impacted by the project or program.

Annex 5 to Appendix 9

*List of intended additional recipients for the Terminal Evaluation (to be completed by the IA Task Manager)*

Name	Affiliation	Email
Aaron Zazueta	GEF Evaluation Office	azazueta@thegef.org
<b>Government Officials</b>		
<b>GEF Focal Point(s)</b>		
<b>Executing Agency</b>		
<b>Implementing Agency</b>		
Carmen Tavera	UNEP DGEF Quality Assurance Officer	

### Appendix 10: Decision making flowchart and organigram



UNEP: United Nations Environmental Programme

NEA: National Executing Agency (Ministry of Agriculture and Rural Affairs, Turkey)

PSC: Project Steering Committee

NPC: National Project Coordinator

## APPENDIX 11: TERMS OF REFERENCE

### Terms of Reference for:

1. **National Executing Agency (NEA)**
2. **Project Steering Committee (PSC)**
3. **National Project Coordinator (NPC)**
4. **Project Assistant(s)**

- 1) The **National Executing Agency (NEA)**, in addition to other duties given to it by the National Government, will:
  - a) Appoint a National Project Coordinator (NPC) taking into account the sustainability of the national biosafety activities after the project completion;
  - b) Establish the Project Steering Committee (PSC) ;
  - c) Provide the necessary scientific, technical, financial and administrative support necessary to the PSC so that it can carry out its work in close collaboration with the relevant government agencies and other stakeholders and implementing partners;
- 2) The **Project Steering Committee (PSC)** will be established by the National Executing agency (NEA) in consultation with all Biosafety relevant stakeholders to advice and guide the implementation of the project. The functions of the PSC are to:
  - a) Provide overall advice on the implementation of the project;
  - b) Oversee the progress of the project execution to ensure that its objectives will be met by the end of the project;
  - c) Make recommendation to UNEP when revision of the result framework, work plan or M&E plan are needed;
  - d) Catalyse inter-departmental and broader national stakeholder support towards achieving the objectives of the project.
  - e) Develop a common understanding on what is necessary to accelerate the establishment of the national biosafety institutional structure;
  - f) Approve the detailed work plan and budget provided by the NPC ;
  - g) Mobilize the necessary expertise in collaboration with the NEA and UNEP needed for the execution of the national project;
  - h) Ensure that government policy is reflected in all documentation and outputs from the national project ;
  - i) Act as discussion forum to air differences and listen to varieties of views and record the process.
- 3) The National Project Coordinator (**NPC**) **will** be appointed by the NEA and will therefore report to the NPD and the PSC. The NPC shall:
  - a) Draw up detailed work plans and budget under the supervision of the NPD and PSC ;
  - b) Communicate with authorities, institutions and government departments concerned in close collaboration with the NDP and the PSC;
  - c) Search, create and maintain linkages with other related national programs and projects;
  - d) Draw up and supervise terms of reference for consultants and experts in the execution of components of the national project;
  - e) Organize, appoint and management of the consultants and experts;
  - f) Oversee the technical and financial management of the national project including supervision of allocation of overall resources and if necessary, submitting proposals for budget review to PSC and UNEP ;
  - g) Oversee responsibility and reporting on monitoring and evaluation processes as per appendix 7

- h) Coordinate the work of all the stakeholders under the supervision of NEA and PSC and in collaboration with UNEP;
- i) Provide information to the NPD and the PSC on all the activities of the government, private and public sectors which have an impact on the safe use of modern biotechnology ;
- j) Draw up and submit regular progress reports, financial reports and Draft PIR reports to UNEP.

4) The **project assistants (PA)** will carry out the following tasks:

- a) Assist the NPC in the implementation of the National Biosafety Project conducted by the local and international experts consultants sub-contractors and co-operating partners;
- b) Assist with the organisation of the National Coordinating committee meetings;
- c) Assist in drafting Terms of Reference for the National Project components consultants and experts;
- d) Assist the NPC ensuring that all activities are carried out on time and within budget to achieve stated outputs;
- e) Assist in providing information to the PSC about all government private and public sector activities which impact on any use of modern biotechnology;
- f) Assist in the preparation of the project monitoring and evaluation plan;
- g) Assist with the identification of appropriate project indicators able to reflect progress of activities as well as impact;
- h) Assist in capturing and incorporating recommendations from PSC meetings into project execution and monitoring and evaluation plan;
- i) Assist with the preparation of the terminal report and other project closure procedures at project completion;
- j) Attend workshops and consultations as appropriate;
- k) Any other task assigned.



**REPUBLIC OF TURKEY  
MINISTRY OF ENVIRONMENT AND FORESTRY**

Ref.: 3106

August 07, 2009

To: Maryam NIAMIR-FULLER  
Director  
UNEP Division of Global Environment Facility (GEF) Coordination  
PO Box 30552 Nairobi, Kenya  
Email: maryam.niamir-fuller@unep.org  
Fax: (254 20) 762-4041

**Subject: Support for the Implementation of the National Biosafety Framework of the Republic of Turkey**

In my capacity as GEF Operational Focal Point for Turkey, I confirm that the above project proposal is in accordance with the government's national priorities and the commitments made by Turkey under the relevant global environmental conventions and it has been discussed with relevant stakeholders, including the global environmental convention focal points, in accordance with GEF's policy on public involvement.

Accordingly, I am pleased to endorse the preparation of the above project proposal with the support of UNEP. If approved, the proposal will be prepared and implemented by Ministry of Agriculture and Rural Affairs (General Directorate of Agricultural Research) and the Ministry of Environment and Forestry (General Directorate of Nature Conservation and National Parks). Further, I request UNEP to provide a copy of the project document for examining before it is submitted to the GEF Secretariat for CEO endorsement.

I understand that the total GEF financing being requested for this project is \$599,500, inclusive of project preparation grant (PPG), if any, and \$54,500 (%10 of the project) to UNEP for project cycle management services associated with this project.

I consent to the utilization of the following indicative allocations available to Turkey in GEF-4 under the GEF Resource Allocation Framework to cover the GEF project preparation and implementation as well as the associated Agency fees for this project.

Biodiversity: \$599,500

Sincerely,

Prof. Dr. Hasan Z. SARIKAYA  
Undersecretary  
GEF Operational Focal Point of Turkey

Copy to: **National Convention Focal Point for UNCBD**  
Prof. Dr. Mustafa Kemal YALINKILIÇ  
General Director of of Nature Conservation and National Parks

**Appendix 14:**

## Draft procurement Plan

<b>Project component</b>	<b>Activity code</b>	<b>Amount allocated / Budget line</b>	<b>Items to be purchased</b>	<b>Timing</b>
<u>A. Stocktaking &amp; Biosafety Policy</u>				
<u>B. Regulatory regime</u>				
<u>C. System for handling of requests for authorization (including administrative processing for risk assessment and informed decision-making), risk assessment and risk management</u>	<u>C8.</u> Purchase of 3 PC to be used for the purpose of management of the information and data on LMOs for risk assessors, decision-makers and risk managers	(4201), USD \$ 3,000	3 PC	2 <sup>nd</sup> quarter of 2011
<u>D. Follow-up mechanisms (monitoring of environmental effects and enforcement: control and inspections)</u>	<u>D1.</u> Purchase of equipments to detect LMOs	(4202), USD \$ 90,000	Real Time PCR and Normal Reverse Transcriptase PCR equipments	4 <sup>th</sup> quarter of 2011
<u>E. Public awareness and participation:</u>				



**Applying the GEF Tracking Tools in GEF-4**

**Objective:** To measure progress in achieving the impacts and outcomes established at the portfolio level under the biodiversity focal area. The following targets and indicators are being tracked for all GEF-4 projects submitted under Strategic Objective Three and the associated Strategic Programs.

**Outcome Indicators for Strategic Objective Three and Associated Strategic Programs**

Strategic Objective	Expected Long-Term Impacts	Indicators
To safeguard biodiversity	<p>Potential risks posed to biodiversity from living modified organisms are avoided or mitigated</p> <p>Potential risks posed to biodiversity from invasive alien species are avoided or mitigated</p>	<p><u>Biosafety:</u></p> <ul style="list-style-type: none"> <li>• Each request for intentional transboundary movement or domestic use is processed through a regulatory and administrative framework aligned with the CPB</li> <li>• For each request for intentional transboundary movement or domestic use risk assessments carried out in accordance with the CPB</li> <li>• For each request for intentional transboundary movement or domestic use, measures and strategies to manage risks established</li> </ul> <p><u>Invasive Alien Species:</u></p> <ul style="list-style-type: none"> <li>• Number of point-of-entry detections</li> <li>• Number of early eradications</li> <li>• Number of successful prevention and control programs</li> </ul>
Strategic Programs for GEF-4	Expected Outcomes	Indicators
6. Building capacity for the implementation of the Cartagena Protocol on Biosafety	<ul style="list-style-type: none"> <li>• Operational national biosafety decision-making systems that contribute to the safe use of biotechnology in conformity with the provisions and decisions of the CPB</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of participating countries with regulatory and policy framework in place</li> <li>• Percentage of participating countries that have established a National Coordination Mechanism</li> <li>• Percentage of participating countries with administrative frameworks in place</li> <li>• Percentage of participating countries with risk assessment and risk management strategies for the safe transfer, handling and use of living modified organisms (LMOs), specifically focused on transboundary movements</li> <li>• Percentage of participating countries that have carried out risk assessments</li> <li>• Percentage of participating countries that fully participate and share information on the Biosafety Clearing House (BCH)</li> </ul>

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Strategic Programs for GEF-4	Expected Outcomes	Indicators
7. Prevention, control, and management of invasive alien species (IAS)	<ul style="list-style-type: none"> <li>• Operational IAS management frameworks that mitigate impact of IAS on biodiversity and ecosystem services</li> </ul>	<ul style="list-style-type: none"> <li>• National coordination mechanisms to assist with the design and implementation of national strategies for IAS</li> <li>• National strategies that inform policies, legislation, regulations, and management</li> <li>• Regulatory and policy frameworks for IAS in place</li> <li>• Point of detection mechanisms in place</li> <li>• Incorporation of environmental considerations with regards to IAS into existing risk assessment procedures</li> <li>• Identification and management of priority pathways for invasions</li> </ul>

**Rationale:** Project data from the GEF-4 project cohort will be aggregated for analysis of directional trends and patterns at a portfolio-wide level to inform the development of future GEF strategies and to report to GEF Council on portfolio-level performance in the biodiversity focal area.

**Structure of Tracking Tool:** Each tracking tool requests background and coverage information on the project and specific information required to track the indicator sets listed above.

**Guidance in Applying GEF Tracking Tools:** GEF tracking tools are applied three times: at CEO endorsement<sup>1</sup>, at project mid-term, and at project completion.

In GEF-4, we expect that projects will be fully aligned with specific Strategic Objectives and support Strategic Programs under each Strategic Objective hence only one tracking tool will need to be completed.

On *very rare occasions*, projects make substantive contributions to more than one strategic objective. In these instances, the tracking tools for the relevant strategic objectives should be applied. It is important to keep in mind that the objective is to capture the full range of a project's contributions to delivering on the targets set for each of the strategic priorities. The GEF Implementing Agency/Executing Agency will guide the project teams in the choice of the tracking tools. Please submit all information on a single project as one package (even where more than one tracking tool is applied).

Multi-country projects may face unique circumstances in applying the tracking tools. The GEF requests that multi-country projects complete one tracking tool per country involved in the project, based on the project circumstances and activities in each respective country. The completed forms for each country should then be submitted as one package to the GEF. Global projects which do not have a country focus, but for which the tracking tool is applicable, should complete the tracking tool as comprehensively as possible.

*The tracking tool does not substitute or replace project level M&E processes, or GEF Implementing Agencies'/Executing Agencies' own monitoring processes.* Project managers, consultants and project evaluators will likely be the most appropriate individuals to complete the

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<sup>1</sup> For Medium Sized Projects when they are submitted for CEO approval.

GEF-4 Tracking Tool for GEF Biodiversity Focal Area Strategic Objective Three:  
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Tracking Tool, in collaboration with other members of the project team, since they would be most knowledgeable about the project.

**Submission:** The finalized tracking tool will be cleared by the GEF Implementing Agencies and Executing Agencies before submission. The tracking tool is to be submitted to the GEF Secretariat at three points:

- 1.) With the project document at CEO endorsement<sup>2</sup>;
- 2.) Within 3 months of completion of the project's mid-term evaluation or report; and
- 3.) With the project's terminal evaluation or final completion report, and no later than 6 months after project closure.

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<sup>2</sup> For Medium Sized Projects when they are submitted for CEO approval.

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**I. Project General Information**

1. Project Name:  
Support for the Implementation of the National Biosafety Framework of the Republic of Turkey
2. Project Type (MSP or FSP): **MSP**
3. Project ID (GEF):
4. Project ID (IA):
5. Implementing Agency: **UNEP**
6. Country(ies): **Turkey**

Name of reviewers completing tracking tool and completion dates:

	<b>Name</b>	<b>Title</b>	<b>Agency/Institution</b>
<b>Work Program Inclusion</b>	<b>Vehbi ESER</b>	<b>National Project Coordinator</b>	<b>Ministry of Agriculture and Rural Affairs</b>
<b>Project Mid-term</b>			
<b>Final Evaluation/project completion</b>			

7. Project duration: **Planned** 3 years **Actual** \_\_\_\_\_ years

8. Lead Project Executing Agency (ies): **Ministry of Agriculture and Rural Affairs**

9. GEF Strategic Program:

**■ Building capacity for the implementation of the Cartagena Protocol on Biosafety (SP 6)**

## **Strategic Program 6: Building capacity for the implementation of the Cartagena Protocol on Biosafety Tracking Tool Guidance Note**

### **Purpose of the Tracking Tool**

The Biosafety Tracking Tool has been developed to help track and monitor progress in the achievement of the primary outcome of Strategic Program Six of the GEF-4 Biodiversity Strategy: “Operational national biosafety decision-making systems that contribute to the safe use of modern biotechnology in conformity with the provisions and decisions of the CPB.” This outcome will be achieved by building capacity to implement the CPB and takes into account the guidance from the CPB and lessons and experiences emerging from the GEF biosafety portfolio. Priority is given to activities for the implementation of the CPB that are specified in the COP guidance to the GEF with respect to biosafety, in particular the key elements in the *Updated Action Plan for Building Capacities for the Effective Implementation of the CPB*, agreed to at the third COP serving as the Meeting of the Parties to the CPB (COP-MOP-3), and identified in a country’s stock-taking analysis. The complete list of activities to be supported under this strategic objective can be found in the biosafety strategy document at:

[http://gefweb.org/Documents/Council\\_Documents/GEF\\_30/documents/C.30.8.Rev.1StrategyforFinancingBiosafety.pdf](http://gefweb.org/Documents/Council_Documents/GEF_30/documents/C.30.8.Rev.1StrategyforFinancingBiosafety.pdf)

### **Guidance on Applying the Biosafety Tracking Tool**

The Tracking Tool contains a set of questions that have been designed to be easily answered by project staff and project evaluators. It depicts a best-case scenario of the required components of a fully operational biosafety framework, and, within each component, a continuum of progress towards a biosafety framework that is fully effective.

As with the other tracking tools applied in the GEF biodiversity portfolio, the application of the tool is meant to facilitate an iterative process whereby the project staff and project evaluators carefully discuss each question about the biosafety framework to arrive at a carefully considered assessment, and in doing so, identify concrete steps forward for improvement. In most cases, a group of project staff, GEF agency staff, (and the project evaluators in the case of the application of the tool at the mid-term and final evaluation) should be involved in answering the questions in the Tracking Tool.

When the assessment is undertaken at the mid-term and the final evaluation, we recommend that some of the same team members who undertook previous assessments be involved to provide continuity of analysis. Where this is not possible the information provided by previous assessors in the comments section of the Tracking Tool will be particularly valuable in guiding the assessment and ensuring consistency in the evaluation being made.

### **Structure and content of the Tracking Tool**

The Tracking Tool addresses eight main issues in one assessment form:

- 1) Biosafety Policy;
- 2) Biosafety Regulatory Regime;
- 3) Administrative System;
- 4) Risk Assessment and Decision-making;
- 5) Follow-up and Monitoring;

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- 6) Public awareness;
- 7) Education; and
- 8) Participation

**Assessment Form:** The assessment is structured around eight (8) questions presented in table format which includes three columns for recording details of the assessment, **all of which should be completed.**

**Questions and scores:**

The assessment is made by assigning a simple score ranging between 0 (poor) to 4 (excellent) in response to a series of eight questions that measure progress in the eight main issues listed above: 1) Biosafety Policy; 2) Biosafety Regulatory Regime; 3) Administrative System; 4) Risk Assessment and Decision-making; 5) Follow-up and Monitoring; 6) Public awareness; 7) Education; and 8) Participation.

Five alternative answers are provided for each question to help assessors to make judgments as to the level of score given. This is, inevitably, an approximate process and there will be situations in which none of the five alternative answers appear to fit the project conditions very precisely. We ask that you choose the one answer that is nearest and use the comment/explanation section to elaborate. The maximum score from the eight main questions is 32. A final total of the score from completing the assessment form can be calculated as a percentage of 32.

The whole concept of “scoring” progress is however fraught with difficulties and possibilities for distortion. The current system assumes, for example, that all the questions cover issues of equal weight, whereas this may not necessarily be the case. Scores will therefore provide a better assessment of effectiveness if calculated as a percentage for each of the elements of a biosafety framework.

Most importantly, the assessment, when applied over time in the context of one project, allows us to gauge progress in achieving the strategic program’s expected outcome. GEF will use this information and subsequent analysis in assessing and better understanding the design of biosafety projects, the strategic program itself, and the tracking tool as a means to measure progress.

**Comment/explanation:**

The **comment/explanation** box next to each question score allows for *qualitative judgments to be explained* in more detail. This could range from local staff knowledge (in many cases, staff knowledge will be the most informed and reliable source of knowledge), a reference document, monitoring results or external studies and assessments – the point being to give anyone reading the report an idea of why the assessment was made.

It is **very important** that this box be completed – it can provide greater confidence in the results of the assessment by making the basis of decision-making more transparent. More importantly, it provides a reference point and information for local staff in the future. This column also allows for *comments*, such as why a particular question was not answered when completing the questionnaire.

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**Next Steps:**

For each question respondents are also asked to identify any intended actions that will improve performance of the biosafety framework.

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**Strategic Program 6: Building capacity for the implementation of the Cartagena Protocol on Biosafety Tracking Tool**

Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
Biosafety Policy	<i>Q1) Has a biosafety policy been developed and is it being fully implemented?</i>			
	<b><i>Response Selection</i></b>			
	A stand alone biosafety policy does not exist	0		
	A stand alone biosafety policy has been produced	1		
	A stand alone biosafety policy has been produced and has been formally adopted by the government	2	Law on GMO adopted in 2010 (Law No: 5977, OJ date 26 March 2010 number 27533) and gives the basic principles of the biosafety policy. It will enter into force at 26 September 2010. There is no separate policy document as such.	To strengthen institutional capacity for implementation of the Law
	A legally approved biosafety strategy has been incorporated into broader sectoral policies (e.g. agriculture, biotechnology, science and technology, health, etc) and is being enforced	3		
	A biosafety policy is implemented	4		

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	through a multi-year Action Plan that involves more than one sector of Government or society.			
Biosafety Regulatory Regime	<i>Q2) Has a regulatory regime been developed and does it have full legal force?</i>			
	<b><i>Response Selection</i></b>			
	A regulatory regime has not been developed	0		
	Interim measures for biosafety decision making, including some modification of existing regulations, have been put in place.	1		
	A regulatory regime has been developed	2	Regulatory regime has been	Completion/revision and

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	and adopted but does not yet have full legal force		initiated, law has been adopted in 2010, but secondary legal acts still need to be drafted/ revised and adopted	adoption of all secondary acts
	The regulatory regime has full legal force, is operational and linked to the administrative system -i.e. used for decisions	3		
	The regulatory regime covers all the types of LMOs and transboundary movements referred to in the Cartagena Protocol, including agreements with Non-Parties	4		
<b>A d m i n i s t r a t i v e S y s t e m</b>	<i>Q3) Is an administrative system in place and fully operational?</i>			

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	<b>Response Selection</b>			
	Focal Points and National Competent Authorities not appointed nor available via BCH	0		
	All Focal Points and National Competent Authorities appointed, and roles & responsibilities stated and available on BCH	1		
	Procedures for handling requests have been designed, legally adopted, and made available to the public.	2	The Biosafety Law designates the procedure for handling of requests and decision-making, but National Competent Authorities, members of the National Biosafety Committee (as a decision-making body) and Scientific Advisory Body has not been appointed yet.	System in place in paper as set in Biosafety law, but needs secondary legal acts to be operational.
	Requests have been received, processed, and decisions communicated to the BCH. Appeal procedures designed and operational.	3		
	Administrative system fully supported by national budget allocation or alternative (non-donor) system of revenue generation	4		
<b>R i s k  A</b>	<i>Q4) Are risk assessment procedures employed and contributing to decision-making?</i>			

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
Risk assessment and Decision- making				
	<b>Response selection</b>			
	No risk assessment is applied to LMOs	0		
	Sectoral risk assessment dossiers are required to accompany LMO requests	1		
	Risk assessment/risk management system involves case-by-case analyses by scientific experts that provide recommendations to decision-making bodies. Composition and responsibilities	2	Biosafety Law, adopted in 2010, sets the RA/RM system, the composition and the responsibilities of the system.	Even though law sets the main principles and responsibilities, the system is not yet operational and needs secondary legal acts to be drafted and adopted, and capacity building for

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	of the decision-making bodies clearly stated and publicized.			implementation in terms of human resources and institutional capacity.
	Decisions on LMOs are integrated across sectors (e.g. take into account risks to human health)	3		
	Decision-making system allows for socio-economic considerations and for review of decisions based on new evidence	4		
Follow-up and Monitoring	<i>Q5) Does an operational follow-up and monitoring system exist?</i>			
	<b>Response Selection</b>			

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	No system for follow-up and monitoring exists	0	Law sets the basic principles and responsible authorities, but the system is neither finalized nor functional yet.	Building institutional and strengthen human capacity to follow up and monitor, including risk assessment for field trials
	Institutional and human capacity in place to follow-up and monitor, including Risk Management for field-trials and post-release	1		
	Compliance mechanisms for Risk Management established	2		
	Liability and redress mechanisms in place	3		
	Decisions, risk management plans, and reports on compliance and liability have been posted to the BCH	4		
<b>P u b l i c  a w a r e n e s</b>	<b>I. Awareness</b> <i>Q6) Is information on LMOs made available to public?</i>	0		

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
s, e d u c a t i o n a n d p a r t i c i p a t i o n				
	<b>Response Selection</b>			
	Little or no official information on LMOs available to the general public	0	National BCH is not operational, little official information available to the general public via web portal of the Ministry	Making national BCH operational, appointing and strengthening of institutional mechanism to organize awareness raising campaign
	Information on LMOs generally available in at least one national	1		

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	language			
	Information on LMOs generally available in at least one national language and is kept updated	2		
	Information on LMOs is used for awareness-raising campaigns	3		
	Survey results on levels of public awareness available	4		
	<b>II. Education</b> <i>7) Has coursework and training on biosafety been integrated into higher education?</i>			
	<b>Response Selection</b>			
	No modern biotechnology and biosafety available in the formal (i.e. technical, academic, extramural) education system.	0		
	Basic modern biotechnology and biosafety information included in the curricula at technical and college levels.	1		
	Dedicated short-term courses on biosafety available for government staff at technical schools and higher education institutions.	2		
	National association for biosafety established	3		
	Undergraduate and graduate degree programs offering concentrations and/or	4	Undergraduate and graduate degree programs offering	Inclusion of biosafety issues in academic

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
	degree programs on modern biotechnology, including biosafety		concentrations and/or degree programs on modern biotechnology but these programs do not include biosafety as a regular part of academic program	programmes
	<b>III. Participation</b> <i>Q8) Has the public been engaged in LMO decision-making?</i>			
	Little or no direct involvement of public in LMO decision-making	0		
	Access to information includes other mechanisms in addition to the BCH (i.e. radio and television programs, newspapers columns, blogs, etc.).	1		
	Mechanism for public involvement in LMO decision-making established	2	Biosafety law sets the system for public participation, but it needs to be functional	Making the public involvement system and consultation mechanism functional via national BCH and other means as set out in the Law
	Evidence of level of public involvement in LMO decision-making available via BCH or other means	3		
	Regular open consultation meetings held on biosafety	4		
<b>T</b>		15		

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Issue	Scoring Criteria	Score: Tick only one box per question	Comment/Explanation	Next Steps
<b>O T T A L S C O R E</b>				
<b>T O T A L P O S S I B L E</b>		32		