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**Terminal Evaluation of the UN Environment/Global Environment Facility  
Project: Building Capacity for the Detection and Monitoring  
of Living Modified Organisms (LMOs) in Cambodia**

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**Evaluation Office of UN Environment**

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## **Acknowledgements**

This Terminal evaluation was prepared for the Evaluation Office of UN Environment by John Mauremootoo, project planning, implementation and monitoring and evaluation expert. The report benefited from a peer review conducted by the Evaluation Office of UN Environment.

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## About the Evaluation<sup>1</sup>

**Joint Evaluation:** No

**Report Language(s):** English

**Evaluation Type:** Terminal project Evaluations

**Brief Description:** This report is a terminal evaluation of the UN Environment-GEF project implemented between 2012 and 2017 and executed by the Cambodia Ministry of Environment (MOE) entitled: Building Capacity for the Detection and Monitoring of LMOs in Cambodia. The project's overarching development goal was to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB with the project objective to build human and infrastructure capacity for LMO detection, with focus on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination and research capacity for risk assessment of LMOs. The project aimed to achieve this objective by executing the following four main components: 1. Identification and analysis of LMO detection and monitoring needs; 2. Training and Public Understanding; 3. Improvement of Infrastructure; and 4. Establish an Information System.

The evaluation sought to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the GEF and MOE - and the relevant agencies of the project participating country.

**Key words:** Biosafety; Biodiversity; Cartagena Protocol; Cambodia; Biotechnology; Living Modified Organisms, Genetically Modified Organisms; Genetic Engineering; Environmental Regulations; Environmental Law; Capacity Building; TE; Terminal Evaluation; GEF; GEF project

<sup>1</sup> This data is used to aid the internet search of this report on the Evaluation Office of UN Environment Website

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## Project Identification Table

<b>GEF Strategic Objective:</b>	SP 6 – Biosafety/SO3	<b>Focal Area(s):</b>	Biosafety
<b>GEF Project ID:</b>	GFL/3636	<b>GEF OP#</b>	GEF 4 BD-SP-6
<b>UN Environment approval date:</b>	March 2012	<b>UN Environment Sub-programme:</b>	Environmental Governance
<b>GEF approval date:</b>	March 2012	<b>Project type:</b>	Medium Size Project
<b>Expected start date:</b>	March 2011	<b>Actual start date:</b>	April 2012
<b>Planned completion date:</b>	February 2014	<b>Actual completion date:</b>	July 2017
<b>Planned project budget at approval:</b>	US\$ 1,656,528	<b>Actual total expenditures reported as of June 2017:</b>	\$761,941
<b>GEF grant allocation:</b>	US\$ 656,528.00	<b>GEF grant expenditures reported as of June 2017:</b>	\$656,528
<b>Expected Medium-Size project co-financing:</b>	US\$ 1,000,000	<b>Secured Medium-Size Project co-financing:</b>	\$105,413
<b>First disbursement:</b>	May 2012	<b>Date of financial closure:</b>	NA: Awaiting signed financial statement
<b>No. of revisions:</b>	5	<b>Date of last revision:</b>	July 2016
<b>No. of Steering Committee meetings:</b>	December 2015	<b>Date of last Steering Committee meeting:</b>	December 2015
<b>Mid-term Review/ Evaluation (planned date):</b>	September 2012	<b>Mid-term Review/ Evaluation (actual date):</b>	N/A
<b>Terminal Evaluation (planned date):</b>	2017	<b>Terminal Evaluation (actual date):</b>	2017-2018
<b>Coverage - Country(ies):</b>	Cambodia	<b>Coverage - Region(s):</b>	South-east Asia

## Acronyms and Abbreviations

<b>Acronym</b>	<b>Name in full</b>
ADB	Asian Development Bank
BCH	Biosafety Clearing House
CABI	Centre for Agriculture and Biosciences International
CamControl	Cambodia Import-Export Inspection and Fraud Repression Directorate-General
CamLAPF	Agriculture and Food Processing Lab
CARDI	Cambodian Agricultural Research Development Institute
CPB	Cartagena Protocol on Biosafety
EC	European Commission
ERT	Emergency Response Team
FAO	Food and Agriculture Organization of the United Nations
FMO	UN Environment Financial Management Officer
GDA	General Department of Agriculture
GEF	Global Environment Facility
IUCN	International Union for Conservation of Nature
LMO	living modified organism
M&E	Monitoring and Evaluation
MAFF	Ministry of Agriculture, Forestry and Fisheries
MIME	Ministry of Industry, Mine and Energy
MOC	Ministry of Commerce
MOE	Ministry of Environment
MOH	Ministry of Health
MRD	Ministry of Research and Development
NEA	National Executing Agency
NPC	National Project Coordinator
NSCB	National Steering Committee on Biosafety
PDQ	Project Design Quality
PIR	Project Implementation Review
PRC	Project Review Committee
ProDoc	Project Document
PSC	Project Steering Committee
RGC	Royal Government of Cambodia
ROtI	Review of Outcomes to Impacts
SAT	Scientific Advisory Team
SCBD	Secretariat to the Convention on Biological Diversity
SMART	Specific, measurable, assignable, realistic and time-specific.
TE	Terminal Evaluation
TM	UN Environment Task Manager
TOC	Theory of Change
UNEP	United Nations Environment Programme (now UN Environment)
USAID	U.S. Agency for International Development
USDA	United States Department of Agriculture
WB	World Bank
WHO	World Health Organisation
WTO	World Trade Organisation

## Executive Summary

The UN Environment/Global Environment Facility (GEF) Project: *Building Capacity for the Detection and Monitoring of living modified organisms in Cambodia*, executed by the Ministry of Environment (MOE), received an overall rating of Moderately Unsuccessful. Moderate success at the activity and output level was not translated into outcomes that were likely to contribute to the project's objective *to build human and infrastructure capacity for living modified organism detection*.

The project was Satisfactory in terms of its *Global and National Strategic Relevance*. Its goal *to assist Parties to the Cartagena Protocol on Biosafety (CPB)* is in alignment with UN Environment's Medium-Term Strategy 2010-2013. The project builds upon previous biosafety work undertaken in Cambodia since 2004 for the development and implementation of a National Biosafety Framework. The project has a very strong focus on strengthening technology and capacity-building (at the individual level at least) to implement the objectives of the Convention on Biological Diversity in line with UN Environment/ Global Environment Facility /Donor Strategic Priorities and the Bali Strategic Plan. The project aligns with Cambodia's biodiversity policy, but linkages with other interventions are not made clear, and regional and sub-regional environmental priorities are not mentioned.

The *Quality of Project Design* was Moderately Satisfactory. The Project Document is difficult to follow in places as the sections are not self-contained. The logical thread that connects the baseline with the intervention strategy is not always clear. The technical sections are logically laid out but information relating to the project's enabling environment is inadequate.

The *Nature of the External Context* was Satisfactory. The project did not face an unusually challenging operational environment. However, there was a change in the Minister of Environment after the 2013 elections and a reorganisation of Ministry of Environment which contributed to implementation delays.

*Achievement of Outputs* was Moderately Satisfactory. As per the reformulated theory of change, the project planned to deliver one preliminary output and thirteen other outputs in four strategies (Training, Public Participation, Infrastructure, Information). Eight outputs were completed, five partially completed and one not completed. The main successes were in the implementation of training activities, the development of protocols and awareness-raising. Activities relating to information management were only partially completed because no data have been uploaded and the system is no longer on line since project closure. Upgrading laboratory facilities was only partially completed because of a lack of living modified organism samples to analyse and the inadequacy of the facility.

*Impact* was Moderately Unlikely given the status of outputs, outcomes, drivers (significant factors that are expected to contribute to the realisation of impacts that are within the project's sphere of influence) and assumptions (significant factors that are expected to contribute to the realisation of impacts that are largely beyond the project's sphere of influence). Drivers relating to commitment at the level of individuals participating in the project were substantially met, while those relating to commitment at institutional and inter-institutional levels were only partly met. Of the eleven outputs to direct outcomes drivers, eight were partly met and three were not met. The major reason why some drivers were only partly met was that activities were restricted to those funded by the project. The remainder were not met because of the technical bias in project design, lack of demand for laboratory tests, and Cambodia's fragmented biotechnology and biosafety institutional environment. One of the three direct outcome to intermediate state drivers was substantially met while two were not met. The fact that there were quality outputs with the potential for high utility illustrates that the project achieved some key outputs. However, the absence of an exit or

communication strategy illustrates a lack of strategic focus. Of the eight outputs to direct outcome assumptions, four were partly met, three were not met and one could not be assessed. A major reason why some assumptions were only partly met was that a lack of a shared perspective on the importance or nature of biosafety (e.g. regarding public participation, long term collaboration on modern biotechnology, and senior government officials as champions). There was also the issue of relevant activities being restricted to those funded by the project, and there was concern that biosafety capacity and knowledge was vested in individuals more than in institutions. Output to direct outcome assumptions that were not met reflected the issue of the absence of living modified organism applications, limited intra and inter-sectoral collaboration, and uncertain national financial commitment.

*Financial Management* was Unsatisfactory. Regular and effective communication was carried out between financial and project management staff, all necessary documents were sent to UNEP, MOE prefinanced some project activities and no cases of financial irregularity were reported. An audit identified weaknesses in the internal control system and the recommendations were agreed upon and implemented by project management. However, data required to make a proper assessment of the project's performance in financial management was not made available by the project.

*Project Efficiency* was Moderately Unsatisfactory. The project built upon relevant previous activities, mainly funded through UN Environment/Global Environment Facility, since 2004. However, there is the need to coordinate the Biosafety Secretariat beyond project activities and provide the resources to support it as defined in the law. The project produced most planned outputs but did not achieve its project planning / annual planning timelines. Spending was generally within what was allocated. The project was able to run additional workshops on the budgeted funds as the costs were relatively low. There is evidence for some adaptive management such as the increase in training in response to demand, but the reasons were not made explicit as part of a formalised Monitoring and Evaluation process.

*Monitoring and Reporting* was Marginally Satisfactory. There was no formal monitoring plan and data were not disaggregated by gender or groups with low representation. This was a challenge as these indicators came in retrospectively and the project was primarily technical in nature so people with a suitable technical background must be deployed. This is not always easy to balance with inclusivity criteria. Reporting was mainly at activity and output level and did not fully facilitate timely tracking of results and progress towards projects objectives. Results were not fully used to improve project performance and to adapt to changing needs. There was a failure to capture lever-aged co-finance and all supporting information was not provided.

*Sustainability* was Marginally Unlikely. Ministry of Environment has been supportive of biosafety, but it is currently undergoing a period of change and it is not guaranteed that biosafety will continue to be a priority. Other stakeholders, including external funders are interested in the development of biotechnology in Cambodia and have funded activities but their commitment to the Cartagena Protocol on Biosafety is not clear. The project placed little emphasis placed on working with neighbouring countries. No formal estimates of financial requirements for the continuation of project results have been produced. Further outside financial support will be needed in the immediate term. Potential mechanisms for financial sustainability through living modified organism testing fees exist but no evidence was provided to indicate that the implementation of such a mechanism is being considered.

*Overall Factors Affecting Performance* was Marginally Unsatisfactory. Regarding *Preparation and Readiness* there were no substantive changes made between project approval, the securing of funds and project mobilisation despite weaknesses in project design. In terms of *Project Implementation*

*and Management*, project reports were accurate and substantially complete but there was little active supervision by the Project Steering Committee and MOE at the higher management level. *Project supervision* was perceived to be effective though there was further scope for adaptive management. Regarding *Stakeholder Participation and Readiness*, the organisations that participated in project activities now have better capacities to sustain project results because of the project. However, collaboration with the private sector was very low despite the participation of Chambers of Commerce in project activities. Collaboration with international stakeholders, notably the Austrian Environmental Agency was critical to project effectiveness. No formal inter-institutional agreements resulted from the project. Despite significant communication-related activity there was a widespread feeling that biosafety awareness was still near zero among key subsections of the general public such as consumers and farmers.

The project performance ratings as described above are summarised in the table below.

**Table 1: Summary of Project Performance Ratings**

EVALUATION CRITERION	PERFORMANCE RATING
A. STRATEGIC RELEVANCE	Satisfactory (S)
B. QUALITY OF PROJECT DESIGN	Moderately Unsatisfactory (MU)
C. NATURE OF EXTERNAL CONTEXT	Satisfactory (S)
D. EFFECTIVENESS	Moderately Unsatisfactory (MU)
I. ACHIEVEMENT OF OUTPUTS	Moderately Satisfactory (MS)
II ACHIEVEMENT OF OUTCOMES	Moderately Unsatisfactory (MU)
III. LIKELIHOOD OF IMPACT	Moderately Unsatisfactory (MU)
E. FINANCIAL MANAGEMENT	Unsatisfactory (EO Rating) <sup>2</sup>
F. EFFICIENCY	Moderately Unsatisfactory (MU)
G. MONITORING AND REPORTING	Moderately Satisfactory (MS)
H. SUSTAINABILITY	Moderately Unlikely (MU)
FACTORS AFFECTING PERFORMANCE:	Moderately Satisfactory (MS)
PREPARATION AND READINESS	Moderately Unsatisfactory (MU)
PROJECT IMPLEMENTATION AND MANAGEMENT	Moderately Satisfactory (MS)
STAKEHOLDER PARTICIPATION AND PUBLIC AWARENESS	Moderately Satisfactory (MS)
<b>OVERALL PROJECT RATING</b>	<b>Moderately Unsatisfactory (MU)</b>

The evaluation findings were used to address the strategic questions listed in the table below which are of interest to UN Environment and to which the project is believed to be able to make a substantive contribution. A five-point scale was used from: very low; low; medium; high; and very high.

<sup>2</sup> Data required to make a proper assessment of the project's performance in financial management was not made available by the project.

**Table 2: The extent to which the project addressed key strategic questions**

Key Strategic Question	Extent to which the project addressed the question
1. To what extent was this project able to assist Cambodia to establish and consolidate a fully functional and responsive LMO detection and monitoring system in its national development plan that responds to their obligations under the Cartagena Protocol on Biosafety?	Low
2. To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for effective enforcement of the Biosafety Law, Decrees and Sub-decrees on biosafety?	Medium
3. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries and Authorities?	Medium
4. To what extent are the outcome indicators verifiable, and record progress towards the achievement of the development objectives, as well as the obligations under the Cartagena Protocol?	High

The overall conclusions drawn from this evaluation were as follows:

1. Project performance was moderately satisfactory at the activity and output level.
2. Project outputs were not sufficient for the achievement of planned outcomes.
3. The project was aided by the support from and to individuals but there were weaknesses at the institutional and inter-institutional levels.
4. Monitoring and evaluation were not sufficiently considered in project design and implementation.
5. Sustainability was not sufficiently considered in project design and implementation.

The overall lessons drawn from this evaluation were as follows:

- 1. It is critical to build on the knowledge and experience base of biosafety “champions” in countries with existing biosafety capacity.**
- 2. Project planning, implementation, and monitoring and evaluation must focus on outcomes towards impacts as well as activities and outputs.**
- 3. Consistent engagement from the Executing Agency throughout the project cycle is critical for project effectiveness.**
- 4. Synergies between key institutions needs to be maximised at all levels of the hierarchy to stimulate long term ownership.**

The overall recommendations drawn from this evaluation were as follows:

- 1. A future project is needed to build on the achievements of this project and to address some of its shortcomings.**
- 2. Future projects need to optimise the comparative advantage of, and synergies among, the relevant institutions.**
- 3. Future projects need to include a formal mid-term review.**
- 4. Formalised results-based monitoring systems must be operational throughout future projects.**

**5. Future projects need to include a formal exit strategy/sustainability plan and build in cost-recovery measures.**

## **1 INTRODUCTION**

1. This Terminal Evaluation report of the UN Environment/Global Environment Facility (GEF) Project "Building Capacity for the Detection and Monitoring of LMOs in Cambodia" (hereafter called "Biosafety project" or simply "the project") contains a general introduction to the project, the TE objectives, process and findings including lessons learned and recommendations.

2. The Biosafety project was executed over a period of five years and three months by the Ministry of Environment (MOE) with a US\$ 656,528 grant from the Global Environment Facility (GEF) and US\$ 1,000,000 in co-financing from the Government of Cambodia. As the designated GEF implementing agency, UN Environment was responsible for providing technical guidance and oversight to the project, and managing the disbursement of GEF funds. The project started in April 2012 (thirteen months later than initially planned) and finished in July 2017 (two years and four months later than initially revised completion date).

3. The project's overarching Development Goal was to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB with the Project Objective to build human and infrastructure capacity for LMO detection, with focus on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination and research capacity for risk assessment of LMOs. The project aimed achieve this objective by executing the following four main components: 1. Identification and analysis of LMO detection and monitoring needs; 2. Training and Public Understanding; 3. Improvement of Infrastructure; and 4. Establish an Information System.

### **1.1 Evaluation Purpose and Strategic Questions, approach and limitations of the evaluation**

4. In line with the UN Environment Evaluation Policy<sup>3</sup> and the UNEP Programme Manual<sup>4</sup>, the Terminal Evaluation is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment, GEF, and the Ministry of Environment of Cambodia (MOE) which was the National Executing Agency. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation, especially for the follow-up projects, if applicable.

5. The evaluation addressed the evaluation criteria<sup>5</sup> and the following four strategic questions as described in the terms of reference (ToR) (Annex 1):

<sup>3</sup> <http://www.unep.org/evaluation/policy-standards/evaluation-policy>

<sup>4</sup> [http://www.unep.org/QAS/Documents/UNEP\\_Programme\\_Manual\\_May\\_2013.pdf](http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf)

<sup>5</sup> A) Strategic Relevance; (B) Quality of project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the achievement of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting project Performance.

- i. To what extent was this project able to assist Cambodia to establish and consolidate a fully functional and responsive LMO detection and monitoring system in its national development plan that responds to their obligations under the Cartagena Protocol on Biosafety?
- ii. To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for effective enforcement of the Biosafety Law, decrees and sub-decrees on biosafety?
- iii. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries and Authorities?
- iv. To what extent are the outcome indicators verifiable, and record progress towards the achievement of the development objectives, as well as the obligations under the Cartagena Protocol?

## 1.2 Evaluation Approach

6. The evaluation approach was as follows:

- A Desk Review of all project documents and tools to which the consultant had access, including those on the ANUBIS platform – project reports, annual work plans and budgets, project revisions, tracking tools, etc., UN Environment and GEF-3 and GEF-4 policies, and strategies and programmes related to biosafety at the time of the project’s approval (October – November 2018) – see Annex 2 for a list of all references used to compile the evaluation report. This review provided the basis for the assessment of the project Design Quality (PDQ) and the formulation of the reconstructed Theory of Change (TOC) based on the project’s design and logical framework using the Review of Outcomes to Impact (ROtI) methodology (GEF Evaluation Office, 2009). This approach aims at mapping the pathways of change between the project’s outputs, expected direct outcomes, up to intended impact via intermediate states, as well as the main drivers and assumptions that have a bearing on the envisaged change. Expected direct (or project) outcomes are those outcomes that result from project activities; intermediate states are transitional conditions between the project’s outcomes and impacts that must be achieved in order to deliver the intended impacts; drivers are significant factors that are expected to contribute to the realisation of impacts that are within the project’s sphere of influence; and assumptions are significant factors that are expected to contribute to the realisation of impacts that are largely beyond the project’s sphere of influence.
- Country visit (8 working days) – January 2018. The main focus of the country visit was interviews with key stakeholders including the National Project Coordinator (NPC), the Biosafety Clearing House (BCH) Focal Point, and member of the National Steering Committee on Biosafety (NSCB), Emergency Response Team (ERT) and Scientific Advisory Team (SAT) who were interviewed individually. Other stakeholders interviewed included representatives of academia, research institutions, project national consultants, and trainers and trainees. Visits to laboratory facilities were also conducted to gather evidence of relevant project results.
- Skype Interviews and email exchanges with the UN Environment Task Manager and international stakeholders who have worked with the project but are based outside Cambodia - the Environment Research Institute, Nanjing (China), and the Environment Agency (Austria) (February 2018).
- A Skype interview with the UN Environment Task Manager (February 2018).

- A total of twenty-seven individuals were interviewed; twenty-four in person, two via Skype, and one via an exchange of emails. Thirteen of these were individual interviews and four were group interviews. The total number of separate interviews, therefore, was seventeen. When numbers of respondents is quoted in the evaluation findings the total is taken as seventeen.
- Data from the desk review and interviews provided the evidence to assess the success of the project in terms of the evaluation criteria and so provided the basis for answering the four strategic questions and producing evidence-based lessons learned and recommendations (February – April 2018). The evaluation programme, including a list of persons interviewed, is provided as Annex 3 and the matrix of evaluation criteria, indicators and means of verification used in this evaluation is provided as Annex 4.
- The draft version of the Terminal Report was submitted to UN Environment for internal review with the NEA (National Executing Agency) and other partners, and revised based on the feedback received (May 2018).
- The revised draft represented the final version of the project's Terminal Evaluation Report and was submitted to UN Environment in August 2018.

7. Interviews followed a semi-structured format based on the evaluation framework matrix (Annex 4). This framework was designed to address all evaluation criteria and evaluation questions as outlined in the TOR with additional questions to address issues raised by the Review of Project Design Quality and TOC analysis. Due to time constraints and the specific knowledge and interests of each respondent, it was not appropriate to administer this detailed framework as a questionnaire. Instead, the evaluator integrated these questions into each interview as appropriate.

### **1.3 Limitations of the Evaluation**

8. Because of time and logistical constraints, it was not possible to conduct interviews with stakeholders outside Phnom Penh. In addition, no civil society representatives including consumers and farmers groups, or representatives of the private sector were met despite requests made by the evaluator prior to and during the visit. The role of these stakeholders in the project, therefore, had to be inferred from the responses of other respondents.

9. A normal weakness of terminal evaluations is that they are often scheduled close to project closure or shortly thereafter. However, in this instance, interviews were conducted six months after project closure, so it was possible to assess final outcomes and likelihood of impact with more certainty than is often the case.

### **1.4 Target audience for the evaluation process and findings**

10. The primary intended users of the evaluation findings are UN Environment staff from the Division of Environmental Policy Implementation (Law Division) and the Evaluation Office, and key project stakeholders responsible for biosafety in Cambodia including the Ministry of Environment and other government institutions represented on the National Steering Committee on Biosafety (NSCB). Principal uses of evaluation findings will be accountability, reflection and learning as a contribution to organisational effectiveness.

11. Other intended audiences are project partners and beneficiaries who will be able to use evaluation findings for public accountability, knowledge building and sharing, cross-fertilisation of lessons learned and the promotion of good practices.

12. Adopting a participatory approach throughout the evaluation will also enhance process use, in which those involved in the evaluation benefit from the evaluation procedures and operations as well as from the findings. The evaluation process will help project stakeholder to understand the links between their activities and outcomes achieved.

## 2 THE PROJECT

### 2.1 Context

13. To boost agriculture, the government of Cambodia has focused on promoting natural breeding for plants, crops and animals, with emphasis on selection for resistance to diseases, pests, and drought. Cambodia, therefore, is more likely to be a user rather than a producer of LMOs (living modified organisms). However, the country needs to regulate risks from LMOs to the conservation and sustainable use of its biological resources taking into account the risk to human health. This risk is illustrated by the fact that Cambodia has more than 2,000 rice varieties that need to be protected from gene flow of genetically modified rice in the region.

14. Recognising the value of the Cartagena Protocol on Biosafety (CPB) as a basis for developing its own biosafety framework, the Government of Cambodia became a party to the Protocol in 2002, which entered into force in 2003. Following this, a law on biosafety was passed in 2007, and a Sub-decree on the mechanism for implementing this law was approved in 2010. The law deals with:

- The trans-boundary movement of LMOs;
- Risk assessment;
- Mechanisms for the release of LMOs into the environment.

15. Cambodia has also set up a policy on biosafety and modern biotechnology, a regulatory framework on biosafety, a system for administrative handling of LMOs applications, a system for enforcement of LMOs application, and public awareness, education and participation.

16. However, Cambodia still needs greater capacity for the detection and identification of LMOs to fully support decision-making for their release and risk management; and issues related to LMOs, including modern biotechnology, are still not well understood by most stakeholders including academia and research institutes. Better capacity for LMO detection in Cambodia would contribute to the safe and sound management of biological diversity, the sustainable use of biological resources, and the environmentally sound management of biotechnology in the country.

17. This GEF-funded project was expected to provide institutional and human technical capacity to Cambodia to be able to fully detect LMOs destined for the country. The focus was on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination, and risk assessment.

### 2.2 Objectives, Components and Outputs

18. The **Goal** of this project is to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB. The project **Objective** is to build human and infrastructure capacity for LMO detection, with focus on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination and research capacity for risk assessment of LMOs. Emphasis on these areas will contribute to sustainable development, and help to preserve biodiversity and reduce poverty. The project objective was supported by the four objectives listed below that provided the foundation for the projects four technical components. The fifth component was project management.

1. To determine the baseline information for LMO detection and to integrate the identified capacity needs into national plans and budgets;

2. To train staff in LMO detection and monitoring, as well as in public communication for the effectively controlled transboundary movement of LMOs and increased public awareness;
3. To equip a laboratory with key instruments for LMO detection following international standard requirement;
4. To create an information system for Biosafety and Biotechnology data management and to resolve legal disputes on LMO based on science.

19. Each of the four technical components and its corresponding objective, intended outcomes and outputs are described in the table below.

**Table 2.1: Project components and expected results**

<b>Project Components and Outcomes</b>	<b>Outputs</b>
<b>Component 1:</b> Identification and analysis of LMO detection and monitoring needs (Objective: To determine the baseline information for LMO detection and to integrate the identified capacity needs into national plans and budgets).	
<i>Outcome 1.1</i> Accurate and comprehensive baseline information on national capacities in infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country	1.1.1 A strategic paper on national capacity for the management of LMOs entering Cambodia
<i>Outcome 1.2</i> Identified capacity needs mainstreamed into National plans and budgets.	1.2.1 Capacity building for technical capacity in LMO detection integrated with overall national technical needs.
<b>Component 2:</b> Training and Public Understanding (Objective: To train staff in LMO detection and monitoring, as well as in public communication for the effectively controlled transboundary movement of LMOs and increased public awareness).	
<i>Outcome 2.1</i> Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms.	2.1.1 Staff trained to undertake LMO sampling detection and operation of laboratory.
	2.1.2 Pool of trained trainers for LMO detection and monitoring.
<i>Outcome 2.2</i> More effective control of movement of LMOs across Cambodian border.	2.2.1 Customs and border control staff trained to test presence of LMOs as well as to seek laboratory confirmation.
<i>Outcome 2.3</i> Enhanced ability to comply with obligations of CPB.	2.3.1 Manuals developed for LMO sampling and detection.
<i>Outcome 2.4</i> Staff trained in public communication.	2.4.1 Communication materials on LMOs prepared jointly with the NBF Implementation project and distributed.
<i>Outcome 2.5</i> Active public participation after increased understanding.	2.5.1 Public feedback related to LMOs.
<b>Component 3:</b> Improvement of Infrastructure (Objective: To equip a laboratory with key instruments for LMO detection following international standard requirements).	
<i>Outcome 3.1</i> Identified laboratory upgraded according to international standard required for LMO detection.	3.1.1 Key instruments for LMO detection in place and operational.
<i>Outcome 3.2</i> Enhanced capacity for in-country detection and monitoring of LMOs.	3.2.1 Methodologies to identify and quantify LMOs to assist compliance with labelling regulations of Biosafety Law.
<b>Component 4:</b> Establish an Information System (Objective: To create an information system for Biosafety and	

Project Components and Outcomes	Outputs
Biotechnology data management and to resolve legal disputes on LMO based on science).	
<i>Outcome 4.1</i> National Information System for Management of Data on Biosafety & Biotechnology linked to the BCH, existing national databases and international information resources.	4.1.1 A National Register for all LMOs tested by Cambodian LMO detection reference laboratory.
	4.1.2 Repository for storage, retrieval, comparison and validation of LMO test results.
<i>Outcome 4.2</i> Scientific basis for resolving legal disputes on LMO labelling and non-compliance.	4.2.1 Linked to the dedicated Biosafety/national BCH website (established respectively under the NBF Implementation project and the BCH project).

### 2.3 Implementation Arrangements

20. UN Environment was the GEF-designated Implementing Agency for the project. In this capacity, it was responsible for overall project supervision to ensure consistency with GEF-UN Environment policies/procedures, providing guidance as needed and liaising with the National Executing Agency (NEA) on substantive and administrative matters. The UN Environment Task Manager (TM) and Financial Management Officer (FMO) assisted the project Team on management aspects in addition to UN Environment-GEF procedures and reporting requirements. The TM and FMO were responsible for clearing and forwarding financial and progress reports to GEF.

21. At the national level, the National Executing Agency (NEA), The Ministry of Environment of Cambodia (MOE) was responsible for overseeing project execution through the Project Steering Committee (PSC) (which also served as the National Steering Committee for Biosafety (NSCB)), and worked on behalf of the Royal Government of Cambodia (RGC) for the overall execution of the project. The NEA was responsible for the appointment of the National Project Coordinator (NPC) and provided the institutional support to the NPC and the project Team.

22. The PSC was mandated to oversee project progress through receipt of periodic progress reports and make recommendations to UNEP on the need to revise any aspects of the Results Framework or the M&E plan. Another PSC mandate was to leverage the necessary resources to the project, working with all partners across various sectors, including potential donors.

23. The NPC was responsible for the overall co-ordination, management and supervision of all aspects of the project at the national level. He was mandated to report to the UN Environment, and liaise closely with the chair and members of the PSC in order to ensure that progress was made according to the work plan for the project. He was responsible for all substantive, managerial and financial reports from the project and their timely submission to UN Environment, ensuring that they met UN Environment and GEF requirements. The NPC was to assist UNEP in the preparation of the annual project Implementation Report (PIR) and was responsible for preparation of the project Terminal Report, at the completion of the project. The NPC was also mandated to supervise the National Project Coordinating Team as well as manage all other consultants appointed for the execution of the project.

### 2.4 Milestones/Key Dates in Project Design and Implementation

- Project approval: March 2012
- Project start date: April 2012
- First disbursement: May 2012

- Completion date: July 2017
- Terminal evaluation: October 2017 – August 2018

## 2.5 Project Financing

24. The Project Document states that the GEF allocation as funding support to the Biosafety project from the GEF Trust Fund was USD 656,528.00. The total project cost estimated in the Project Document, including co-financing from the Government of Cambodia was estimated as USD 1, 656,528.00, with USD 1,000,000.00 estimated as in-kind financing as follows. Actual co-financing was recorded (to an extent) throughout the project life cycle.

## 2.6 Project Partners

25. Project partners, their intended roles, as described in the ProDoc, and their actual involvement in the project are listed in the table below.

**Table 2.2: Project partners and role in the project**

Partner	Role (from ProDoc)	Involvement in implementation (Yes/No/Uncertain)	Involvement
<b>Ministry of Environment (MOE)</b>	MOE has key and general departments to deal with biodiversity and biosafety issues: General Department of Nature Conservation and Protection, Department of Environmental Impact Assessment, Department of Environmental Pollution Control, Department of Environmental Awareness and Communication, and Department of Planning and Legal Affairs. MOE has established the National Steering Committee for Biosafety (NSCB) to oversee biosafety issues. The NSCB is chaired by the Minister of Environment and Vice-Chaired by Secretary of State from MAFF. MOE is the focal point for the Cartagena Protocol on Biosafety and the competent national authority.	Yes	Project coordination, provision of buildings and other infrastructure, CBP focal point, chair of NSCB, provision of staff time.
<b>Ministry of Agriculture, Forestry and Fisheries (MAFF)</b>	MAFF has a General Department of Agriculture (GDA) which has the mandate to follow-up on crop production and analyse technical factors related to agricultural materials supporting crop production or to trade, which affect crop production development and mandate to control the quality of agricultural material used in crop production. Cambodian Agricultural Research and Development Institute (CARDI), a research institution under MAFF, has a vital role in risk assessment of LMOs as their work and research have been in agriculture, training and technology transfer. They can also be involved in the development of data collection and training materials.	Yes	PSC membership, participation in trainings and received awareness materials.
<b>Ministry of Health</b>	MOH has three institutions and universities dealing with human health and food and drug quality control. MOH has the mandate to	Yes	Evidence for NSC membership only

Partner	Role (from ProDoc)	Involvement in implementation (Yes/No/Uncertain)	Involvement
(MOH)	develop overall health policy, regulation and legislation based on the Government's policy goals to improve health, managing the systems of pharmaceutical production, business and distribution of medical and paramedical equipment to all private and public entities, and examining and follow-up activities on food safety		
<b>Ministry of Commerce (MOC)</b>	MOC has the General Department of CamControl (Cambodia Import-Export Inspection and Fraud Repression Directorate-General) to deal with food safety and quantity of export and import products and at market products as well as take measures to prevent impure product quality at markets including food products, except drugs and cosmetic makeup products.	Yes	Participation in trainings and received awareness materials.
<b>Ministry of Research and Development (MRD)</b>	MRD is responsible for promoting agricultural production, rural industries, and finding markets for rural community products.	Yes	Evidence for NSC membership only.
<b>Ministry of Industry, Mine and Energy (MIME)</b>	MIME is responsible for promoting the development of industrial activities, and for processing of agricultural products in the industrial sector. Food manufacturing sector is under the management of MIME.	Yes	Evidence for NSC membership only.
<b>Scientific community (including universities, academic and research institutions)</b>	The Royal University of Phnom Penh has a role in conducting research on biology, taxonomy, basic plant breeding and so forth for students.  Universities may be able to provide technical and scientific assistance through the result of their study and research. The student body is a huge resource: (1) for participation in and preparation of the public education materials and (2) - as their solid ability to distribute and disseminate these knowledge and educational materials to the public.	Yes	As stated in the ProDoc.
<b>Private sector Chamber of Commerce, other civil Groups</b>	Under the auspices of MOC, the Chamber of Commerce carries out activities to serve the interests of commerce, industry, agriculture, crafts, and services within their constituency. There is one Chamber of Commerce per province.  The Chamber of Commerce, has been encouraged to participate in the deliberations of the NSCB and to make submissions on decision making on LMO, depending on the relevance of LMOs to their interests.  As representatives of the different inter-	Uncertain	No evidence for their involvement in the project.

Partner	Role (from ProDoc)	Involvement in implementation (Yes/No/Uncertain)	Involvement
	professional groups may be called for or invited on an as needs basis (depending on the relevance of the LMO to their interests) to take part in activities relevant to their main duties and key expertise.		
<b>Donors:</b> <b>Asian Development Bank, UN Environment, GEF, World Bank, European Commission, etc.</b>	Donors are very important partners in providing technical assistance and financial support.	Yes	UNEP-GEF has contributed as stated, EC, ASEAN and the Government of Austria provided technical assistance. Post-project technical assistance was provided by the United States Department of Agriculture post-project.
<b>NGOs:</b> <b>UNIDO, FAO, WHO, WTO, IUCN, CABI, etc.</b>	NGOs are among other important groups that have great ability in the involvement in training activities, development and dissemination of training materials and other relevant resources for the public. Their capacity to take part in raising public awareness and education.	No	The groups listed with principally intergovernmental organisations than NGOs. Nevertheless, there was no evidence for the involvement of either non-governmental organisations or intergovernmental organisations.

## 2.7 Changes in Project Design during Implementation

26. There were no substantive changes made between project approval, the securing of funds and project mobilisation despite weaknesses in project design as outlined in this document. Unsurprisingly given this level of satisfaction with the project design, there were few substantive changes during project implementation. There was, if anything, an increased focus on technical activities, such as training and a reduced focus on more strategic areas such as the production of a systematic and transparent capacity needs assessment focusing on inter-institutional and institutional as well as individual capacity, meetings to promote the adoption of draft legislation and renewal of the National Action Plan on Biosafety and Modern Biotechnology 2010-2014, the production of a communication strategy that establishes a base for continued information dissemination, and the production of an exit strategy that establishes a base for financial/institutional sustainability. The TM drew attention to the risk that the project plans for possible institutional changes as a result of the 2013 election, but it is not clear what was done to address this issue other than move the relevant timelines.

## 2.8 Reconstructed Theory of Change of the project

27. The Theory of Change (TOC) analyses the causal pathways that link project outputs to outcomes and towards impact. The TOC also identifies intermediate changes ('intermediate states') that need to occur in order to proceed from project outcomes to impact. The TOC also defines external factors that influence change along the major pathways and how outputs progress towards outcomes. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control). The TOC for the project is illustrated visually in Figure 2.1.

28. The results framework was not entirely consistent, with the following outputs (1.1. *baseline information*; 2.4. *training*; 3.1. *laboratories upgraded*; and 4.1. *information systems*) labelled as outcomes. In addition, apart from Component 1 – *Identification and analysis of LMO detection and monitoring needs*, the pathways of change between outputs and outcomes were incomplete. For Component 2 (*Training and Public Understanding*): the listed training outputs alone would be insufficient to result in *Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms* (Outcome 2.1); *Customs and border control staff trained to test presence of LMOs as well as to seek laboratory confirmation is necessary but not sufficient for more effective control of movement of LMOs across the Cambodian border* (Outcome 2.2); it requires more than the *development of manuals for enhanced ability to comply with obligations of CPB* (Outcome 2.3); and, *active public participation...* (Outcome 2.4) depends upon other outputs besides *public feedback related to LMOs*. For Component 3 (*Improvement of Infrastructure*): *enhanced capacity for in-country detection and monitoring of LMOs* (Outcome 3.2) requires more than *methodologies to identify and quantify LMOs to assist compliance with labelling regulations of Biosafety Law*; *More effective enforcement of the Biosafety Law, decrees and sub-decrees, better border control and field tests* (Outcome 3.3) depends upon other outputs besides the *development or modification of methods for qualitative onsite testing of LMOs at borders and in field trials*; and an *improved capacity to comply with the obligations of the CPB* (Outcome 3.4) emerges from other outputs besides the *development of an internationally accredited LMO detection laboratory*. For Component 4 (*Establish an Information System*): Outcome 4.1. was, as described above, actually an output and insufficient alone to establish a *scientific basis for resolving legal disputes on LMO labelling and non-compliance* (Outcome 4.2). Output 4.2.1. (*Linked to the dedicated Biosafety/national BCH website* (established respectively under the NBF Implementation project and the BCH project) was unclearly worded and could be effectively subsumed under 4.1 so was not considered separately.

29. To clarify the results chain, all outputs were grouped into four parallel impact pathways/'strategies' (1. *Training*, 2. *Public Participation*, 3. *Infrastructure*, and 4. *Information*) which were reconstructed, in accordance to the Project Rationale presented in the ProDoc (paras 81 and 82). Outcome 1.1, *Accurate and comprehensive baseline information on national capacities in infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country*, which corresponded to Component 1 – *Identification and analysis of LMO detection and monitoring needs*, was reformulated as a 'Preliminary Output' that was to inform each strategy. Output 1.1.1, *A strategic paper on national capacity for the management of LMOs entering Cambodia* can be used as an indicator for this output.

30. Most of the important outputs to outcomes assumptions have been identified in the ProDoc. An important assumption that was added (in red) was the need for *Senior government officials to champion the development of a more enabling policy environment for long-term sustainability*. Several important outputs to outcomes drivers were identified in the ProDoc but many were not listed. Those added to the TOC (in red) relate to stakeholder collaboration – *Collaboration and communication mechanisms among and between government agencies and other stakeholders and the public established to maintain active stakeholder participation*, and *Appropriate participatory*

*methods are utilised for risk communication throughout the decision-making process; information and institutional factors – BCH is regularly updated; and political and institutional matters – A mechanism is in place for coordination among NSCB, SAT and ERT for effective implementation of the Biosafety Law and Sub-decree, and Indigenous institutions have been strengthened to provide leadership and technical support to consolidate project outcomes.* Most of these assumptions directly relate to enforcement and sustainability which is elaborated in more detail below.

31. Direct outcomes have been reformulated under 5 categories: *Capacity; Public Participation; Infrastructure; Information; and Enforcement.* The interacting nature of these outcomes is illustrated by the fact that several could be included under more than one heading, e.g. outcome 4.2. *Scientific basis for resolving legal disputes on LMO labelling and non-compliance* could be included under both information and enforcement, and Outcome 3.1.1 *Key instruments for LMO detection in place and operational* could be included under both capacity and enforcement. Biosafety enforcement does not feature explicitly in project activities or outputs, but enforcement-related outcomes are prominent in the results framework. The outcomes used in the TOC are all from the ProDoc as, if realised, they are considered sufficient to promote the project's main outcome - *Enhanced ability to comply with the obligations of Cartagena Protocol on Biosafety* (Outcome 2.3 in the Results Framework). The capacity and enforcement outcomes could be streamlined as there is some overlap but maintaining the original outcomes would make it easier for those interviewed to assess the degree to which these outcomes have been realised. The lack of attention given to issues relating to enforcement is considered to be a major gap in the Results Framework despite the fact that the [lack of a] mechanism for coordination among NSCB, SAT and ERT is considered to be 'the main barrier' (ProDoc Section 1.3, Threats, root causes and barrier analysis). In this same section, it is stated that 'Threat to this project are capacity at institutional and individual level' yet the project's activities explicitly focus on capacity building at the individual level only. Two of the eight direct outcomes identified (3.4.1. Accredited LMO lab, and 3.3.1. Key instruments for LMO detection in place and operational) were characterised as outputs in the ProDoc. The latter was merged with Outcome 3.3. (More effective enforcement of the Biosafety Law, decrees and sub-decrees, better border control and field tests) in the TOC.

32. Assumptions and drivers between direct outcomes and the main outcome relate to sustainability in its many dimensions: resources; institutional support; stakeholder participation; international collaboration; and the maintenance of international good practice.

33. Intermediate states relate to a fully functional regime being in place for regulation, handing applications, enforcement and monitoring and for public participation.

34. The main outcome or project objective in the ProDoc is described as follows: *This project aims at the building of national human and infrastructure capacities for LMO detection and monitoring in Cambodia.* However, this reads like an activity, describing what the project intends to do rather than what the project intends to contribute towards. For this reason, the main outcome has been reformulated as - *Enhanced ability to comply with obligations of the Cartagena Protocol on Biosafety.* This major outcome had actually been listed as a sub-component outcome (Outcome 2.3) in the results framework. This outcome has been merged with Outcome 3.4. (*Improved capacity to comply with obligations of CPB*).

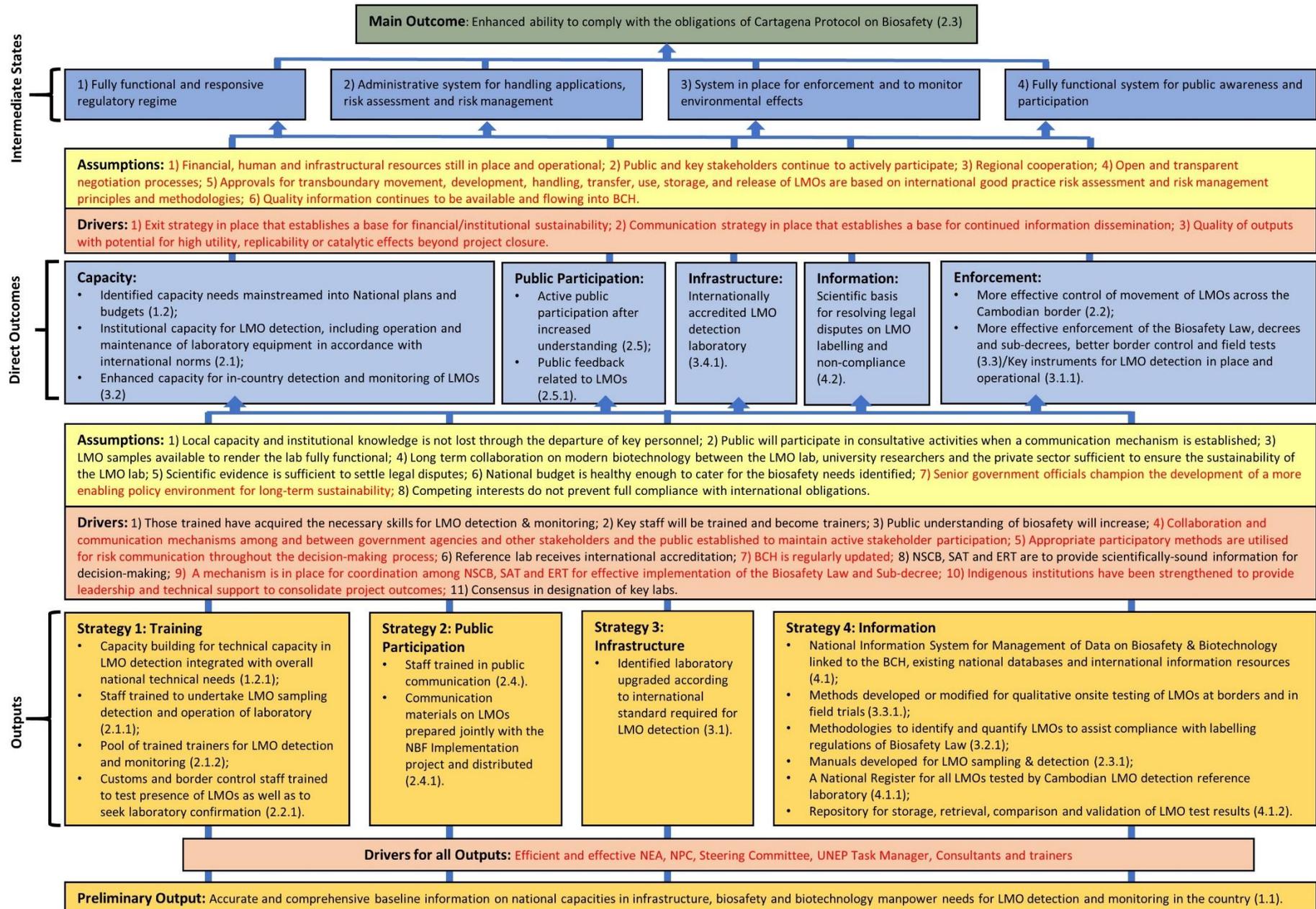


Figure 2.1 Reconstructed Theory of Change (TOC) from project Outputs to Main Outcome

### 3 EVALUATION FINDINGS

#### 3.1 Strategic Relevance

35. The Project Goal is to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB. This is in alignment with UNEP's Medium Term Strategy (MTS) 2010-2013, relating to two of seven cross-cutting themes and objectives: *Ecosystem Management*; and *Environmental Governance*. These two themes are Sub-programmes in the 2010-2011 PoW.

36. The project builds upon previous UNEP/GEF funded projects since 2004 for the development of a National Biosafety Framework and its implementation (2006-2010) under which Cambodia produced a National Law on biosafety and a Sub-decree on mechanism and procedure to implement the Law on Biosafety.

37. The project has a very strong focus on strengthening technology and capacity-building (at the individual level at least) to implement the objectives of the Convention on Biological Diversity in line with UNEP/GEF/Donor Strategic Priorities and the Bali Strategic Plan. South-South collaboration is not heavily emphasised, but it is touched upon in Section 1.6 (Baseline analysis and gaps) in terms of establishing emergency response mechanisms including networking with neighbouring countries to identify and mitigate the spread of LMO products.

38. The principal focus of the project is on national environmental priorities as part of Cambodia's biodiversity policy as outlined in its NBSAP. Regional and Sub-regional environmental priorities are not mentioned.

39. The ProDoc states that the project provides opportunities for linkages with an Asian Development Bank project for phytosanitary and standard development for foods, a USAID funded agriculture food chain project and GEF-funded projects but the alignment and relevance is implied rather than explicitly stated.

#### 3.2 Quality of Project Design

40. The ProDoc is difficult to follow in places as the sections are not self-contained. This means that several sections must be consulted to acquire the necessary information. The logical thread that connects the baseline with the intervention strategy (alternative) is not always clear. The technical sections are logically laid out but information relating to the project's enabling environment – policy and institutional, socio-political, economic and environmental are inadequate so the intervention is not clearly laid out in terms of its context. The rating assigned to each of the Review criteria is summarised in the table below, while the detailed review is presented in Annex 5 (Completed matrix of the overall of project design quality, PDQ). Every criterion has a rating (from 1 to 6) and each has a different weighting with the final score being the product of them (last column). On this basis, the average score for the whole of the Project Design is 2.892 and falls under the category “Moderately Unsatisfactory”.

**Table 3.1: Summary of Project Design Quality (PDQ) scores (see Annex 5)**

	SECTION	RATING (1-6)	WEIGHTING	TOTAL (Rating x Weighting)
A	Nature of External Context	5	0.4	2.0
B	Project Preparation	3	1.2	3.6
C	Strategic Relevance	5	0.8	4.0
D	Intended Results and Causality	3	1.6	4.8

	SECTION	RATING (1-6)	WEIGHTING	TOTAL (Rating x Weighting)
E	Logical Framework and Monitoring	3	0.8	2.4
F	Governance and Supervision Arrangements	5	0.4	2.0
G	Partnerships	4	0.8	3.2
H	Learning, Communication and Outreach	4	0.4	1.6
I	Financial Planning / Budgeting	5	0.4	2.0
J	Efficiency	4	0.8	3.2
K	Risk identification and Social Safeguards	4	0.8	3.2
L	Sustainability / Replication and Catalytic Effects	3	1.2	3.6
M	Identified project Design Weaknesses/Gaps	5	0.4	2.0
<b>TOTAL SCORE (Sum Totals)</b>				<b>37.6</b>
<b>AVG SCORE (divide total by 13)</b>				<b>2.892= MU</b>

### 3.3 Nature of External Context

41. Favourable: The project did not face an unusually challenging operational environment that is likely to negatively affect project in terms of: ongoing/high likelihood of conflict; Ongoing/high likelihood of natural disaster, or; ongoing/high likelihood of change in national government. However, there was a change in Minister of Environment following the elections in 2013 and a reorganisation of the Ministry of Environment which did contribute to delays in project implementation.

### 3.4 Effectiveness

42. The overall rating for effectiveness was Moderately Unsatisfactory with individual ratings as follows: Achievement of output - Moderately Satisfactory; Achievement of outcomes - Moderately Unsatisfactory; and Likelihood of Impact - Moderately Unlikely.

#### 3.4.1 Achievement of outputs from the reconstructed TOC

43. As per the reformulated theory of change, the project planned to deliver one preliminary output and thirteen other outputs in four strategies (section 2.8). Project performance was moderately satisfactory in this regard with eight outputs completed, five partially completed and one not completed. Four of the completed outputs concerned the implementation of training activities, three concerned the development of technical methodologies and protocols and one concerned the development and distribution of communication materials.

44. The **Preliminary Output (1.1.1) - A strategic paper on national capacity for the management of LMOs entering Cambodia**, was not completed. There was no evidence that baseline information on national capacities in infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country was collected during the project. However, biosafety capacity needs had been identified in the thematic Assessments and Action Plan for the Three Conventions (CBD, UNFCCC AND UNCCD) (RGC 2007). There was also input from the Action Plan on Biosafety 2010-2014 which was undertaken as part of previous GEF project for implementation of the National Biosafety Framework (NBF) (RCG 2010) and a brief situation analysis of capacity to detect and monitor transboundary movement of LMOs in Cambodia was undertaken during the project preparatory phase (MOE 2010).

Training needs are summarised in the project Inception Report (RGC 2012) but there are no details on the assessment methodology used and most information provided is generic. The main substantive part is the table of awareness raising elements, targeted groups, and methods/tools. There was no standalone capacity needs assessment report (indicator for output 1.1.2), nor evidence that capacity needs were formally assessed nor that the project design was fine-tuned based on the updated information on baseline analysis by the project Coordinating Team, in consultation with UN Environment, under the supervision of the National Steering Committee on Biosafety.

45. The four outputs related to **Strategy 1 – Training**, were all completed. For the first output, *capacity building for technical capacity in LMO detection integrated with overall national technical needs* (1.2.1), project training activities closely followed the table of awareness raising elements, targeted groups, and methods/tools contained in the Project Inception Report. For the second output, *staff trained to undertake LMO sampling detection and operation of laboratory* (2.1.1.), a series of four trainings were conducted in-country for laboratory staff from MOE, MAFF and universities (Annex 6). The trainings were: 1) LMO detection using protein-based analysis; 2-4) Quantitative detection of LMOs using PCR. 20 participants took part in the first training with lower numbers in subsequent trainings (participants' lists only available for the first training). There was not complete continuity of trainees (three individuals participated in all trainings), so material had to be repeated and many of the trainees (about half according to 1 respondent) had no molecular biology background which slowed down progress. In addition, three Cambodian lab staff participated in the China-ASEAN+ Training Workshop on Biosafety Capacity Building in Nanjing China in September 2016 and one staff member participated in the Workshop of the Network of Laboratories for the Detection and Identification of Living Modified Organisms, which was scheduled in June 2015 at the European Commission Joint Research Centre (JRC) in Ispra, Italy. For the third output, *pool of trained trainers for LMO detection and monitoring* (2.1.2), six staff were trained as trainers, two from the LMO detection laboratory and one from the MAFF Agriculture and Food Processing Lab, the NPC through activities conducted in Cambodia and internationally (in China and Italy) and two professors at the Royal University of Agriculture, Phnom Penh. For the fourth output, *Customs and border control staff trained to test presence of LMOs as well as to seek laboratory confirmation* (2.2.1), eleven training workshops were conducted for customs and border control staff (Annex 6). A total of 880 people participated in these workshops.

46. Of the two outputs related to **Strategy 2 – Public Participation**, one was completed and one partly completed. The first output, *staff trained in public communications* (2.4) was partly completed. Training in public communication was undertaken as part of the workshop to identify the elements for public awareness raising (RGC 2013a). However, the three planned follow-up workshops on public awareness of LMO detection and monitoring did not take place. For reasons within the direct control of the project, far greater emphasis was placed on training of customs and border control staff to test for the presence of LMOs as well as to seek laboratory confirmation. The second output, *communication materials on LMOs prepared jointly with the NBF Implementation project and distributed* (2.4.1) was completed. Communication material produced included: project brochure; LMO and biosafety-related videos which were produced and broadcast on National TV (TVK) (Annex 6).

47. The single output related to **Strategy 3 – Infrastructure**, *identified laboratory upgraded according to international standard required for LMO detection* (3.1), was partially completed partly for reasons beyond the direct control of the project – lack of LMO samples - but the inadequacy of the laboratory chosen was something over which the project had more control. An LMO detection lab was created and equipped but not to international standards and the necessary steps for accreditation were not followed. The laboratory has the potential to achieve the international standards required for LMO detection and has most of the necessary equipment, but it is lacking in certain respects. It is a single room facility, so it is not possible to separate sample preparation from extraction and detection thus risking contamination, some equipment is currently not functioning, and the power supply in the MOE building in which it is housed is not consistent enough for such a facility. The small number of samples tested would have made accreditation problematic. In view of the above, accreditation was not sought.

48. Of the six outputs related to **Strategy 4 – Information**, three were completed and three partly completed. The following outputs were completed: *Methods developed or modified for qualitative on-site testing of LMOs at borders and in field trials* (3.3.1) - a SOP for protein-based methods has been produced, the tests have been applied for on-site testing of LMOs, and 880 officers from different agencies have been trained in sample collection; *Methodologies to identify and quantify LMOs to assist compliance with labelling regulations of Biosafety Law* (3.2.1) - methodologies for detection and quantification have been developed, documentation has been produced, and staff have been trained to use these methodologies; and *manuals developed for LMO sampling and detection* (2.3.1) - SOPs for sampling and LMO detection – protein-based methods, and nucleic acid-based methods - were produced under the project (Annex 6). The outputs, *National Information System for Management of Data on Biosafety & Biotechnology linked to the BCH, existing national databases and international information resources* (4.1); a *National Register for all LMOs tested by Cambodian LMO detection reference laboratory* (4.1.1); and *repository for storage, retrieval, comparison and validation of LMO test results* (4.1.2) were only partially achieved because although a repository was established as part of the n-BCH in 2014, no data have been uploaded as there have been no LMO import applications to date (not under the control of the project), and since project closure the system is no longer on line (not under the control of the project but indicative of a lack of project mainstreaming at the MOE level).

49. The final status of project outputs is summarised in the table below.

**Table 3.2: Achievement of project outputs - summary**

(text in red indicates an output in the reconstructed TOC that was designated as an outcome in the ProDoc)

Outputs	Relevant indicators	Level of achievement
<b>Preliminary output</b>		
1.1. Accurate and comprehensive baseline information on national capacities in infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country	1.1.1 A strategic paper on national capacity for the management of LMOs entering Cambodia.	Not completed
<b>Strategy 1: Training</b>		
1.2.1. Capacity building for technical capacity in LMO detection integrated with overall national technical needs.	Technical training and infrastructure are identified and integrated into national training needs.	Completed
2.1.1. Staff trained to undertake LMO sampling detection and operation of laboratory.	5-10 staff members undergo different levels of training, and are updated regularly on LMO detection.	Completed
2.1.2. Pool of trained trainers for LMO detection and monitoring.	5 staff members are trained as trainers for LMO detection.	Completed
2.2.1. Customs and border control staff trained to test presence of LMOs as well as to seek laboratory confirmation.	15 – 20 Staff at all major entry points are trained	Completed
<b>Strategy 2: Public Participation</b>		
2.4. Staff trained in public communication	By end of project, 10 staff from relevant authorities trained in public	Partially completed

Outputs	Relevant indicators	Level of achievement
	communication.	
2.4.1. Communication materials on LMOs prepared jointly with the NBF Implementation project and distributed.	Communication material for various target audience prepared in Khmer language throughout the project life.	Completed
<b>Strategy 3: Infrastructure</b>		
3.1. Identified laboratory upgraded according to international standard required for LMO detection	Laboratory for LMO detection is operational.	Partially completed
<b>Strategy 4: Information</b>		
4.1. National Information System for Management of Data on Biosafety & Biotechnology linked to the BCH, existing national databases and international information resources	Information management system in place and operational.	Partially completed
3.3.1. Methods developed or modified for qualitative on-site testing of LMOs at borders and in field trials	Methods for on-site detection of LMOs made available to relevant control authorities.	Completed
3.2.1. Methodologies to identify and quantify LMOs to assist compliance with labelling regulations of Biosafety Law.	Sampling and analytical methods for LMO control and detection established.	Completed
2.3.1. Manuals developed for LMO sampling and detection.	SOPs for different sampling and detection techniques available for the control authorities.	Completed
4.1.1. A National Register for all LMOs tested by Cambodian LMO detection reference laboratory.	National Register is established.	Partially completed
4.1.2. Repository for storage, retrieval, comparison and validation of LMO test results.	Database set up and accessible to control authorities.	Partially completed

#### 3.4.1.1 Drivers for all outputs

50. This achievement of outputs relates to project design and implementation, and also to drivers (significant factors that are expected to contribute to the realisation of impacts that are within the project's sphere of influence). The extent to which drivers that relate to all outputs have been met is assessed in the section below. Drivers were separated into three categories: *drivers for all outputs*; *drivers between outputs and direct outcomes*; and *drivers between direct outcomes and intermediate states*.

51. Of the five drivers for all outputs, three were substantially met (NPC efficient and effective, UNEP Task Manager efficient and effective, and Consultants and trainers efficient and effective), while two were only partly met (NEA efficient and effective, and Steering Committee efficient and effective). These

findings indicate a greater commitment at the level of individuals participating in the project in a technical and management capacity than at the institutional and inter-institutional levels. Detailed narratives for each driver are provided below.

52. Driver 1, *NEA efficient and effective*, was partly met. The effectiveness of the NEA has been inconsistent. A potentially strong enabling environment was established before the project with the passing of the Law on Biosafety and Sub-decree. This was strengthened during the project with the drafting of the Law on Liability and Redress and the Regulations on cultivation and field trials. The NEA has also supported the project by providing in-kind support such as office and laboratory premises but there was no evidence for in-kind support in terms of staff time. The NEA has also supported the establishment of a biosafety coordination system for the effective implementation of the Biosafety Law and sub-decree. In addition, the NEA has pre-financed project activities to minimise the impact of delayed disbursement of GEF funds. However, changes at the institutional level following the 2013 elections and appointment of a new minister have reduced momentum. All environmental legislation is being incorporated within a single “Environmental Code”. The draft Law on Liability and Redress and Regulations must be adapted to this code. Only three National Steering Committee on Biosafety were held during the project and none have been held since and since project closure. Finance for basic activities such as web hosting and field visits has not been made available. The fact that the National Action Plan on Biosafety and Modern Biotechnology, which expired in 2014, was not updated during project implementation would appear to indicate that biosafety is a relatively low priority for MOE. Six respondents expressed the view that biosafety is a relatively low priority for MOE.

53. Driver 2, *NPC efficient and effective*, was substantially met. The NPC has helped to drive the biosafety process in Cambodia for more than a decade and has a large network of contacts in relevant national and international organisations. He managed to facilitate the involvement of a range of organisations in project activities, recruiting of consultants who were subject matter experts, and was very successful in channelling project awareness through national television. The NPC has ready access to most documentation but there are some gaps in his record-keeping system.

54. Driver 3, *Steering Committee efficient and effective*, was partly met. The National Steering Committee on Biosafety (NSCB) was constituted with key government agencies but there was no representation from the non-government or private sectors. The NSCB only met three times during project implementation with two meetings early in the project (25 July and 23 October 2012) and a final meeting on 18 December 2014, 30 months before the project closed. It was difficult to judge effectiveness as NSCB minutes were in Khmer.

55. Driver 4, *UNEP Task Manager efficient and effective*, was substantially met. The UNEP Task Manager (TM) always processed requests in a timely manner, responded to queries and used his overview of the subject and his network to support project activities, e.g. recruiting experts from the Austrian Environment Agency to support project activities. There was scope for further adaptive management, e.g. the organisation of a substantive mid-term review rather than using the PIR for this purpose. A mid-term review could have been useful for identifying bottlenecks and proposing remedies while project time and funds still remained.

56. Driver 5, *Consultants and trainers efficient and effective*, was substantially met. The consultants, in most cases, delivered outputs according to their terms of reference. Consultants used were subject matter experts. One gap was the project communication strategy. A consultant was commissioned but there is no evidence that the strategy was every completed.

57. A summary of the extent to which the drivers for all outputs, as articulated in the reconstructed theory of change have been met is described in the table below.

**Table 3.3: Extent to which drivers for all outputs have been met - summary**

(text in red indicates a driver added in the reconstructed TOC)

Drivers	Status
1) NEA efficient and effective	Partly met
2) NPC efficient and effective	Substantially met
3) Steering Committee efficient and effective	Partly met
4) UNEP Task Manager efficient and effective	Substantially met
5) Consultants and trainers efficient and effective	Substantially met

### 3.4.2 Achievement of direct outcomes from the reconstructed TOC

58. As per the reformulated theory of change, the project planned to deliver nine direct outcomes in five categories. Project performance was moderately unsatisfactory in this regard with no outcomes fully achieved, four partially achieved and five not achieved.

59. Of the three outcomes related to **Capacity**, one was not achieved and two were partially achieved. The outcome, *identified capacity needs mainstreamed into National plans and budget* (1.2), was not achieved. A large number of respondents (11) stated that identified budgets to achieve capacity needs had not been made available. *Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms* (2.1) was partially achieved. A laboratory has been identified (MOE Biotechnology Laboratory), responsibilities have been assigned and six staff have been trained to be trainers during the project. However, the laboratory is not fully functional (Section 3.4.1). A number of respondents (7) were not convinced that MOE was the best host institution for this facility for reasons including lack of qualified staff, MOE's focus on the policy rather than the technical aspects of biosafety, and unsuitable built infrastructure. *Enhanced capacity for in-country detection and monitoring of LMOs* (3.2) was also partially achieved. Sampling and analytical protocols have been produced under the project and staff have been trained to perform these protocols. However, these protocols have not been implemented (9 respondents). The network of control authorities exists in theory, but no control activities are currently being implemented (9 respondents).

60. Of the two outcomes related to **Public Participation**, one was partially achieved and one was not achieved. *Active public participation after increased understanding* (2.5) was partially achieved. A mechanism was established under the n-BCH which is no longer online. This mechanism was not used during the project. This was attributed to the fact that no applications for LMO introductions into Cambodia have been made (10 respondents) and the prevailing low levels of awareness about LMOs and biosafety (12 Respondents). There were high levels of public participation in events organised under the project such as student debates. However, no evidence was found that such participation has translated itself into further participation that has not been initiated through the project. *Public feedback related to LMOs* (2.5.1) has not been achieved. A system was established under the n-BCH which is no longer online. There have been no reported invitations for public feedback reflecting the fact that there have been no official applications to import LMOs products for field trials, release into environment and for food, feed and processing (10 respondents).

61. The single outcome related to **Infrastructure**, *Internationally accredited LMO detection laboratory* (3.4.1), was not achieved. The LMO laboratory has not been accredited (Section 3.4.1).

62. The single outcome related to **Information**, *scientific basis for resolving legal disputes on LMO labelling and non-compliance (4.2)*, was partially achieved. An information system was established under the project and incorporated into the n-BCH; the database to produce a National Register was established; a database was established in 2014 and was accessible to control authorities; and a decision-making system is in place and collaboration with other reference labs. However, none of these elements are currently operational. A level of commitment exists to the institutional arrangements as enshrined in the Biosafety Law and Sub-decree, and the draft law on liability and redress and draft regulations (prakas), among those interviewed from different institutions (MOE, MAFF, GDCE, CamControl). However, the institutional restructuring of MOE currently being undertaken has resulted in uncertainty in terms of future commitment (6 respondents).

63. both outcomes related to **Enforcement** were not achieved *more effective control of movement of LMOs across the Cambodian border (2.2)*, there is no evidence that an effective control system is in place (10 respondents); and for *more effective enforcement of the Biosafety Law, decrees and Sub-decrees, better border control and field tests/key instruments for LMO detection in place and operational (3.3/3.1.1)*, A monitoring and enforcement system exists but there is no evidence that it is currently being implemented (10 respondents).

64. The final status of project direct outcomes is summarised in the table below.

**Table 3.4: Achievement of project direct outcomes - summary**

(text in red indicates an outcome in the reconstructed TOC that was designated as an output in the ProDoc)

Outcomes	Relevant Indicators	Level of achievement
<b>Capacity</b>		
1.2. Identified capacity needs mainstreamed into National plans and budget	<i>Budget for identified capacity needs made available according to national plans.</i>	Not achieved
2.1. Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms	<i>Within the first year, the LMO detection labs are identified, responsibilities are assigned, and 5 staff trained to be trainers on LMO detection.</i>	Partially achieved
3.2. Enhanced capacity for in-country detection and monitoring of LMOs	<i>A network of control authorities including customs, labs and border control is established; Sampling and analytical methods for LMO control and detection established.</i>	Partially achieved
<b>Public Participation</b>		
2.5. Active public participation after increased understanding	<i>Mechanisms established for public participation by mid-project.</i>  <i>Public participate in consultative activities as outlined in public participation mechanisms following the establishment of these mechanisms.</i>	Partially achieved
2.5.1. Public feedback related to LMOs (number changed from 2.4.2 in the ProDoc for internal consistency).	<i>Number of invitations for public feedback</i>	Not achieved

Outcomes	Relevant Indicators	Level of achievement
<b>Infrastructure</b>		
3.4.1. Internationally accredited LMO detection laboratory	By end project the LMO detection lab is internationally accredited.	Not achieved
<b>Information</b>		
4.2. Scientific basis for resolving legal disputes on LMO labelling and non-compliance	<p>4.1. By end project an information management system for data on biosafety &amp; biotechnology linked to the Biosafety Clearing House (BCH), existing national databases and international information resources is in place and operational.</p> <p>By 2010 a National Register of LMO test results is established.</p> <p>LMO database set up and accessible to control authorities.</p> <p>4.2. By end project a decision-making system is in place and collaboration with other reference labs established.</p>	Partially achieved
<b>Enforcement</b>		
2.2. More effective control of movement of LMOs across the Cambodian border	2.2. By the end of the project, effective control system is in place and border checks are performed regularly; Staff at major entry points will be trained.	Not achieved
3.3. More effective enforcement of the Biosafety Law, decrees and Sub-decrees, better border control and field tests/3.1.1. Key instruments for LMO detection in place and operational	3.3. By end of the project, an efficient monitoring and enforcement system is in place.	Not achieved

65. This low level of translation of outputs into outcomes relates to inadequacies in project design and implementation, but also to failures of output to direct outcome assumptions (significant factors that are expected to contribute to the realisation of impacts that are largely beyond the project's sphere of influence) and drivers which are assessed in the sections below.

#### 3.4.2.1 Output to direct outcome assumptions

66. Of the eight outputs to direct outcomes assumptions, four were partly met, three were not met and one was unknown (not possible to assess). A major reason why some assumptions were only partly met was that there was often a lack of a shared perspective on the importance or nature of biosafety (e.g. regarding public participation, long term collaboration on modern biotechnology, and senior government officials as champions). There was also the issue of relevant activities being restricted to those funded by the project as observed when considering project drivers. Staff turnover was considered to be inevitable but there was concern that the capacity and knowledge was vested in individuals more than in institutions. Output to direct outcome assumptions that were not met reflected

the issue of a lack of LMO applications, limited intra and inter-sectoral collaboration, and uncertain financial commitment at the national level. Detailed narratives for each assumption are provided below.

67. Assumption 1, *local capacity and institutional knowledge is not lost through the departure of key personnel*, was partly met. Those who were trained and had sufficient technical background to benefit from the training are mostly still working in the same capacity, though in many cases they do not have the opportunity to practice the skills learned during the project (4 respondents). A great deal of institutional knowledge resides with the former NPC (6 respondents) who is still responsible for biosafety in MOE. His continued involvement is an asset but the dependence on a limited number of key individuals is a risk.

68. Assumption 2, *public will participate in consultative activities when a communication mechanism is established*, was partly met. The high level of participation in public awareness events during the project would indicate that the public would participate in relevant activities when undertaken (3 respondents). However, LMO/biosafety awareness levels remain low despite project activities (12 respondents).

69. Assumption 3, *LMO samples available to render the lab fully functional*, was not met. LMO samples were collected only during the project. No respondents could provide precise figures, but it was clear that the numbers of samples processed were low and insufficient to render the laboratory fully functional.

70. Assumption 4, *long term collaboration on modern biotechnology between the LMO lab, university researchers and the private sector sufficient to ensure the sustainability of the LMO lab*, was not met. There was collaboration with university researchers during the project and this has been maintained (though not in biosafety-related work) but there has been no substantive collaboration with the private sector either during or post-project (2 respondents).

71. Assumption 5, *scientific evidence is sufficient to settle legal disputes*, was not possible to ascertain. There have been no LMO import applications to date, but in principle the legal provisions require this scientific evidence and the project's technical training and infrastructure investments provide the technical support for the legislation.

72. Assumption 6, *National budget is healthy enough to cater for the biosafety needs identified*, was not met. See Section 3.4.2.

73. Assumption 7, *senior government officials champion the development of a more enabling policy environment for long-term sustainability*, was partly met. There is support for biosafety at the middle level, especially among technicians, but it is not considered to be a priority at the senior (e.g. ministerial) levels (6 respondents).

74. Assumption 8, *competing interests do not prevent full compliance with international obligations*, was partly met. Stakeholders were clear that MOE holds the national biosafety policy mandate, but some felt that this role was a barrier to the development of modern biotechnology in the country (3 respondents).

75. A summary of the extent to which the output to direct outcome assumptions stated in the ProDoc and those in the reconstructed theory of change have been met is described in the table below.

**Table 3.5: Extent to which output to direct outcome assumptions have been met - summary**

(text in red indicates an assumption added in the reconstructed TOC)

Assumptions	Status
1) Local capacity and institutional knowledge is not lost through the departure of key personnel	Partly met

Assumptions	Status
2) Public will participate in consultative activities when a communication mechanism is established	Partly met
3) LMO samples available to render the lab fully functional	Not met
4) Long term collaboration on modern biotechnology between the LMO lab, university researchers and the private sector sufficient to ensure the sustainability of the LMO lab	Not met
5) Scientific evidence is sufficient to settle legal disputes	Not possible to ascertain
6) National budget is healthy enough to cater for the biosafety needs identified	Not met
7) Senior government officials champion the development of a more enabling policy environment for long-term sustainability	Partly met
8) Competing interests do not prevent full compliance with international obligations	Partly met

#### 3.4.2.2 Output to direct outcome drivers

76. The eleven outputs to direct outcomes drivers were either partly met (eight) or not met (three). The major reason why some drivers were only partly met was that activities were restricted to those funded by the project. For example, trainees developed skills for LMO detection and monitoring but did not practice those skills once trained, and the n-BCH was updated during project implementation but has not been updated since project closure. Three drivers were not met for a variety of reasons: participatory methods for risk communication throughout the decision-making process was not a focus for the project which reflected the technical bias of the project design; reference lab receives international accreditation did not happen because of a lack of demand but also because the lab was not fit for purpose (Section 3.4.1); and the fact that there was not a consensus in designation of key labs reflects the fragmented biotechnology and biosafety institutional environment in Cambodia. Detailed narratives for each driver are provided below.

77. Driver 1, *those trained have acquired the necessary skills for LMO detection & monitoring*, was partly met. Knowledge has been obtained and, in some cases, skills as well, but training has not been followed up with practice, so it is doubtful that most trainees could easily translate their knowledge into skills (7 respondents). In some instances, individuals without the necessary background were chosen for technical training (2 respondents) and there was a turnover of individuals in some cases meaning some did not attend all parts of training courses that were meant to be attended in their entirety (2 respondents).

78. Driver 2, *key staff will be trained and become trainers*, was partly met. Key staff have been trained and some became trainers during the project but have not had the opportunity to lead training activities since project closure (4 respondents). If there are no opportunities for training it is likely that those trained as trainers will have reduced capacity over time.

79. Driver 3, *public understanding of biosafety will increase*, was partly met. There is wide agreement that the project helped to increase awareness of biosafety, especially among staff in the relevant government agencies as prior to the project “awareness levels were zero” (variations on this statement were made by 5 respondents). However, despite awareness related activities aimed at a more general public (notably TV broadcasts), there was a widespread feeling that biosafety awareness was still near zero in key subsections of the general public such as consumers (who were more concerned with issues relating to pesticides – 8 respondents) and farmers (more concerned with yield and profitability – 5 respondents).

80. Driver 4, collaboration and communication mechanisms among and between government agencies and other stakeholders and the public established to maintain active stakeholder participation, was partly met. Collaboration levels among and between government agencies have improved because of the project (8 responses) but institutional rivalries are still an issue, e.g. MOE is not always informed about relevant activities being implemented by other government agencies (4 respondents) and MOE do not always invite relevant stakeholders to their meetings (3 respondents). Collaboration levels with key stakeholders, notably the private sector, remain low (9 respondents).

81. Driver 5, appropriate participatory methods are utilised for risk communication throughout the decision-making process, was not met. This was not a focus for project activities.

82. Driver 6, *reference lab receives international accreditation*, was not met. LMO laboratory has not received international accreditation (Section 3.4.1).

83. Driver 7, *BCH is regularly updated*, was partly met. The n-BCH was updated during project implementation, but has not been updated since project closure and is no longer online.

84. Driver 8, *NSCB, SAT and ERT provide scientifically-sound information for decision-making*, was partly met. The structure to provide scientifically-sound information for decision-making is in place. However, it is difficult to judge its effectiveness given the fact that no applications for LMO introduction have been received.

85. Driver 9, a mechanism is in place for coordination among NSCB, SAT and ERT for effective implementation of the Biosafety Law and Sub-decree, was partly met. The mechanism is in place, but it is difficult to judge its effectiveness for the reason described above.

86. Driver 10, *indigenous institutions have been strengthened to provide leadership and technical support to consolidate project outcomes*, was partly met. There was a widespread feeling that the project had done a great deal to bring the issue of biosafety to the attention of many individuals working in diverse institutions, especially those working in a technical capacity (10 responses). However, a prevalent viewpoint was that despite these efforts leadership was lacking at the highest levels (8 respondents).

87. Driver 11, *consensus in designation of key labs*, was not met. Stakeholders were not clear on what basis the decision to designate the key LMO detection lab was made and there was concern that the current and previous premises used were not suitable (5 respondents).

88. A summary of the extent to which the output to direct outcome drivers stated in the ProDoc and those in the reconstructed theory of change have been met is described in the table below.

**Table 3.6: Extent to which output to direct outcome drivers have been met - summary**

(text in red indicates a driver added in the reconstructed TOC)

Drivers	Status
1) Those trained have acquired the necessary skills for LMO detection & monitoring	Partly met
2) Key staff will be trained and become trainers	Partly met
3) Public understanding of biosafety will increase	Partly met
4) Collaboration and communication mechanisms among and between government agencies and other stakeholders and the public established to maintain active stakeholder participation	Partly met

Drivers	Status
5) Appropriate participatory methods are utilised for risk communication throughout the decision-making process	Not met
6) Reference lab receives international accreditation	Not met
7) BCH is regularly updated	Partly met
8) NSCB, SAT and ERT provide scientifically-sound information for decision-making	Partly met
9) A mechanism is in place for coordination among NSCB, SAT and ERT for effective implementation of the Biosafety Law and Sub-decree	Partly met
10) Indigenous institutions have been strengthened to provide leadership and technical support to consolidate project outcomes	Partly met
11) Consensus in designation of key labs	Not met

### 3.4.3 Likelihood of Impact

89. Likelihood of impact was rated as Moderately Unlikely due to the fact that: all direct outcomes were either not achieved or only partially achieved, almost all outcomes to intermediate state assumption were not met, and most direct outcome to intermediate state drivers were not met. Of the nine assumptions and drivers, only Assumption 3, which relates to outputs produced by the project, was substantially met. This reflects the project's output-oriented, technical focus (production of SOPs, technical training, etc.) and the lack of sustained engagement of key stakeholders, including MOE, beyond the project coordination team. The fact that the other two drivers, relating to exit and communication strategies, were not in place, is indicative of a lack of strategic focus. The assumptions that did not hold reflect a lack of ownership of the project results and process beyond those responsible for the production of project outputs. This is exemplified by the fact that financial, human and infrastructural resources have not been committed by MOE and others, that the public and key stakeholders do not continue to actively participate in biosafety-related activities, and that funds have not been made available to maintain the n-BCH which is no longer online.

90. Despite the lack of systemic change the project did create opportunities for particular individuals or institutions ("champions") to catalyse change. There have been a number of identified follow-up initiatives by partner organizations or individuals to replicate lessons from project, the participation of new relevant institutional stakeholders, and there is potential for replication/up-scaling, though the latter has yet to be realised.

91. Unlike, outputs, outcomes, drivers and assumptions, intermediate states were not systematically assessed as it was evident that they were not achieved in view of the results attained at the earlier stages in the results chain.

#### 3.4.3.1 Direct outcome to intermediate state assumptions

92. Of the six direct outcome to intermediate state assumptions, one was partly met, and five were not met. The assumption that was partly met related to *approvals for transboundary movement, development, handling, transfer, use, storage, and release of LMOs are based on international good practice risk assessment and risk management principles and methodologies*. The procedures exist but it remains to be seen how effectively they will be implemented. The unmet assumptions are crucial to the success of the project as a contribution to Cambodia's ability to comply with its CBP obligations, relating as they do to quality information, public participation, open and transparent processes, regional

collaboration and financial, human and infrastructural resources. Detailed narratives for each assumption are provided below.

93. Assumption 1, *financial, human and infrastructural resources still in place and operational*, was not met (See output to direct outcome assumptions 1, 3 and 6 in Section 3.4.2.2 for details).

94. Assumption 2, *public and key stakeholders continue to actively participate*, was not met. Public and key stakeholder participation was driven by project activities and has been negligible since project closure (6 Respondents). The degree of participation in project activities indicated that there was the potential for the active participation of public and key stakeholders if a system was implemented.

95. Assumption 3, *Regional cooperation*, was not met. Countries in the region are not collaborating effectively apart from joint participation in workshops and training. Vietnam and Thailand pay a lot of attention to ABS and biotechnology but not to the CPB which is widely perceived to be of little benefit to them (2 responses).

96. Assumption 4, *open and transparent negotiation processes*, was not met. This depends a great deal on the budgets available for the respective ministries. The fact that the National Action Plan on Biosafety and Modern Biosecurity expired during the project affected this transparency.

97. Assumption 5, *approvals for transboundary movement, development, handling, transfer, use, storage, and release of LMOs are based on international good practice risk assessment and risk management principles and methodologies*, was partly met. Regulations are in place, but no official LMO applications have been made. However, five out of the six respondents who expressed an opinion believed that LMO corn seed was being sold in Cambodia through Thailand and Vietnam despite the regulations.

98. Assumption 6, *quality information continues to be available and flowing into BCH*, was not met. The information provided is insufficient for effective decision-making. Information flow since project closure has been negligible.

99. The extent to which the direct outcome to intermediate state assumptions stated in the reconstructed theory of change have been met is summarised in the table below.

**Table 3.7: Extent to which direct outcome to intermediate state assumptions have been met - summary**

(text in red indicates an assumption added in the reconstructed TOC)

Assumptions	Status
1) Financial, human and infrastructural resources still in place and operational	Not met
2) Public and key stakeholders continue to actively participate	Not met
3) Regional cooperation	Not met
4) Open and transparent negotiation processes	Not met
5) Approvals for transboundary movement, development, handling, transfer, use, storage, and release of LMOs are based on international good practice risk assessment and risk management principles and methodologies	Partly met
6) Quality information continues to be available and flowing into BCH	Not met

#### 3.4.3.2 Direct outcome to intermediate state drivers

100. One of the three direct outcome to intermediate state drivers was substantially met while two were not met. The fact that there were quality outputs with the potential for high utility, replicability or catalytic effects beyond project closure illustrates that the project achieved in terms of some key outputs. However, the absence of an exit or communication strategy is illustrative of the lack of a strategic focus. Detailed narratives for each driver are provided below.

101. Assumption 1, *exit strategy in place that establishes a base for financial/institutional sustainability*, was not met. No formal exit strategy/sustainability plan was produced. However, the legislation does exist to enable the biosafety work to continue, but no significant funds have been allocated to this process.

102. Assumption 2, *communication strategy in place that establishes a base for continued information dissemination*, was not met. Although commissioned under the project, the communication strategy was never finalised.

103. Assumption 3, *Quality of outputs with potential for high utility, replicability or catalytic effects beyond project closure*, was substantially met. A number of valuable outputs were produced that during the project including the Draft Law on Liability and Redress, Draft Regulations on growing of LMOs in Cambodia, training curricula on LMO detection, a draft national plan on monitoring and control of LMOs in Cambodia (MOE 2014), and the SOPs on protein and nucleic acid-based detection methods. Some of these are being used as teaching resources at universities (3 respondents).

104. The extent to which the direct outcome to intermediate state drivers stated in the reconstructed theory of change have been met is summarised in the table below.

**Table 3.8: Extent to which direct outcome to intermediate state drivers for have been met - summary**

(text in red indicates a driver added in the reconstructed TOC)

Drivers	Status
1) Exit strategy in place that establishes a base for financial/institutional sustainability	Not met
2) Communication strategy in place that establishes a base for continued information dissemination	Not met
3) Quality of outputs with potential for high utility, replicability or catalytic effects beyond project closure	Substantially met

### 3.4.3.3 Catalytic role

105. The project, to some extent, played a catalytic role through the creation of opportunities for individuals and/or institutions (“champions”) to catalyse change. Each criterion was rated to have been partly met as detailed in the narrative below.

106. a) *Number of identified follow-up initiatives by partner organizations or individuals to replicate lessons from project.* The TM and NPC successfully catalysed the involvement of the Austrian Environmental Agency (during the project); there has been a follow-up workshop organised by USDA (30-31 August 2016: Introductory Workshop on Agricultural Biotechnology for Regulator, Policy Experts, Academics and Industry in Cambodia) which was catalysed by the NPC. There are a number of initiatives that have been identified including under USAID (although funding would come with a very clear “pro-LMO” agenda), JICA and through ASEAN.

107. b) *Degree of participation of new relevant institutional stakeholders.* Through training and awareness raising, new relevant institutional stakeholders have been sensitised about biosafety (Customs, CamControl, Agriculture and Food Processing Lab - CamLAPF Cambodian Agricultural Research and Development Institute - GDA). However, the levels of capacity and degree of ownership is insufficient for effective and sustained change.

108. c) *Documented examples of replication or up-scaling.* No ongoing initiatives have been recorded although a project development process for a UNEP/GEF Grant on developing risk analysis in Cambodia and Laos is being undertaken through MOE in Cambodia.

## 3.5 Financial Management

109. Two criteria were rated to have been substantially met and one partly met. Details are provided in the narrative below.

110. a) *Completeness* – partly met. All necessary documents were sent to UNEP. MOE was able to pre-finance activities while awaiting disbursement of project funds. An audit was carried out for the period from 2 April 2012 to 31 December 2015 and weaknesses were identified in the internal control system and recommendations made. These were agreed upon by project management and implemented from 1 January 2016.

111. b) *Communication* – substantially met. Regular, routine and effective communication was carried out between financial and project management staff.

112. c) *Compliance* - substantially met. No cases of irregularities were reported. All procedures were carried out according to UN rules, for example, in terms of salary to staff, and payment instalments. The ANUBIS (A New UNEP Biosafety Information System) system for information management, was very

helpful as it ensures that work plans and budgets are revised, and it gives reminders regarding quarterly reporting.

113. However, project financial management status could not be assessed conclusively because a statement of project expenditure by activity, and the summary of co-finance information, were not made available to the evaluation.

**Table 3.9: Project financial management status - summary**

Criteria	Indicators	Status
<b>Completeness:</b> How complete is the financial information provided by the project?	Level of completeness and accuracy of reports	Partly met
<b>Communication:</b> How complete was the communication between financial and project management staff?	Perception of effectiveness of communication between financial and project management staff	Substantially met:
<b>Compliance:</b> To what extent did the project comply with the relevant UN financial management standards and procedures?	Number of cases of irregularities reported	Substantially met:

### 3.6 Efficiency

114. One of the five efficiency criteria (budget fidelity) was substantially met, two partly met (connectedness and adaptive management), and two (timeliness and budget fidelity) were not met leading to an overall rating of Moderately Satisfactory. Detailed narratives for each criteria are provided below.

115. a) *Connectedness* - partly met: The project built upon relevant previous activities funded mainly through UNEP/GEF since 2004 (for NBF development and implementation), and included pre-existing institutions – notably those represented on the NSCB. However, there is a need to dedicate more staff to the work and support beyond in-kind co-financing. There is the need to coordinate the Biosafety Secretariat beyond project activities and provide the resources to support it as defined in the law.

116. b) *Timeliness* – not met: The project produced most planned outputs but did not achieve its project planning / annual planning timelines. Establishing laboratory facilities was a protracted process and ultimately there was a failure to gain accreditation, institutional reform and the construction of a new MOE building resulted in long delays as did the lack of expertise in certain key areas such as trainers for LMO detection. Translation of reports, and internal bureaucracy caused delays. There was a delay in sending funds to the Cambodia between June and November 2016 when UNEP moved its financial system from IMIS (Integrated Management Information System) to the Umoja Enterprise Resource Planning System. This was, of course, beyond the control of the project. Because of this UN-wide issue an extension had to be made.

117. c) *Budget fidelity* – partly met: There were three budget rephasals resulting from requests for extension. A major change was the increase in the budget for training and the reduction in the budget for accreditation. Spending was generally within what was allocated. The project was able to run additional workshops on the budgeted funds as the costs were relatively low.

118. d) *Implementation delays* – not met (see narrative under timeliness for details).

119. e) *Adaptive management* - partly met. There is evidence for some adaptive management such as the increase in training in response to demand, but the reasons were not made explicit as part of a formalised M&E process.

120. Project efficiency criteria, indicators and status are summarised in the table below.

**Table 3.10: Project efficiency – summary**

Criteria	Indicators	Status
<b>Connectedness:</b> Did the project build adequately on existing institutions, lessons of other initiatives, data sources, partnerships with third parties and ongoing projects?	Level of inclusion of pre-existing initiatives and institutions	Partly met
<b>Timeliness:</b> To what extent did the timing of operational execution correspond with original planning timelines?	Level of compliance with project planning / annual plans	Not met
<b>Budget fidelity:</b> To what extent did the budget for operational execution correspond with original budget? Was the project implemented cost-effectively?	Level of compliance with project financial planning / annual plans	Partly met
<b>Implementation delays:</b> Where applicable, what have been the main reasons for delay/changes in implementation? Have these affected project execution, costs and effectiveness?	List of reasons, validated by project staff	Not met
<b>Adaptive management:</b> Was adaptive management applied adequately? Were any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its secured budget and time?	Measures taken to improve project implementation based on project monitoring and evaluation	Partly met

### 3.7 Monitoring and Reporting

121. Monitoring and Reporting was rated as Moderately Satisfactory. Two of the three monitoring and reporting criteria (monitoring implementation and project reporting) were partly met and the remaining criterion (monitoring design and budgeting) was not met. Detailed narratives for each criteria are provided below.

122. a) *Monitoring design and budgeting* – not met. There was no formal monitoring plan and data were not disaggregated by gender or groups with low representation. This was a challenge as these indicators came in retrospectively and the project was primarily technical in nature so people with a suitable technical background must be deployed. This is not always easy to balance with inclusivity criteria.

123. b) *Monitoring implementation* – partly met. The monitoring system comprised of the Project Results Framework (ProDoc Appendix 4), key deliverables and benchmarks (ProDoc Appendix 6) and the Costed M&E Work Plan (ProDoc Appendix 7). The cost allocation (\$5,000), however, was very low. A Mid-Term Review was scheduled but it did not take place. The 2014 PIR being used instead despite the fact that it paid very little attention to results beyond outputs. The mid-term review budget, at \$4,000 was unrealistic. Outputs, in most cases, were accompanied by 'SMARTish' indicators though time-specificity is missing in most instances. Most outcomes are accompanied by SMART indicators though many of them relate more to outputs than outcomes, e.g. 'staff at major entry points will be trained' does not tell us anything about the behavioural changes to which this training has contributed. In addition, some outcomes are accompanied by inappropriate indicators, e.g. the (non-SMART) indicator

'Mechanism for public participation' is not appropriate for the outcome 'Active public participation after increased understanding.' Means of verification were stated but in generic terms. In the ProDoc, it is stated that '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' but there is no evidence that this was done. Execution of activities was tracked through formal reporting (PIRs, Anubis, etc.) and monitoring was mainly for reporting purposes. Reporting was mainly at the activity and output level and did not fully facilitate timely tracking of results and progress towards projects objectives. Monitoring results were not fully used to improve project performance and to adapt to changing needs (result-based monitoring for adaptive management). The monitoring system appears to be mainly the responsibility of the PM and the TM and other stakeholders were not directly engaged in the M&E process as evidenced by the lack of attention placed on M&E at the Project Inception Meeting and the lack of a formal feedback mechanism to improve the support adaptive management beyond the formal project reporting process.

124. c) *Project Reporting* – partly met. The reports were accurate, but they were not always complete. For example, there was a failure to capture leveraged co-finance and not all supporting information was provided, for example workshop reports.

125. Monitoring and reporting criteria, indicators and status are summarised in the table below.

**Table 3.11: Monitoring and reporting – summary**

Criteria	Indicators	Status
a) <b>Monitoring design and budgeting:</b> Was the project supported by a sound monitoring plan designed to track progress against SMART indicators towards the achievement of the projects outputs and direct outcomes, including at a level disaggregated by gender or groups with low representation?	Level of completeness of monitoring plan	Not met
b) <b>Monitoring implementation:</b> Was the M&E system operational and did it facilitate timely tracking of results and progress towards projects objectives throughout the project implementation period? Were the results used to improve project performance and to adapt to changing needs?	Level of implementation of M&E system (execution of activities)  Changes in project implementation as result of supervision visits"	Partly met
c) <b>Project Reporting:</b> Were PIR reports, half-yearly Progress & Financial Reports complete and accurate?	Level of completeness and accuracy of reports	Partly met:

### 3.8 Sustainability

126. *Overall sustainability* - Sustainability was rated as Moderately Unlikely with two of the three sustainability criteria (socio-political and institutional sustainability) partly met and the remaining criterion (financial sustainability) not met. Detailed narratives for each criteria are provided below.

127. a) *Socio-political sustainability* – partly met. MOE has been historically supportive of biosafety, but the ministry is currently undergoing a period of change and it is not guaranteed that biosafety will continue to be a priority (4 respondents). Other stakeholders, including external funders (e.g. US Embassy and USDA) are interested in the development of biotechnology in Cambodia and have funded activities but their commitment to the CPB is not clear. Individual capacity development efforts initiated in this project have not been maintained after project closure and are highly unlikely to be sustained unless external funding is acquired. The project placed little emphasis on working with neighbouring countries but such collaboration has been prioritised under a prospective UNEP/GEF biosafety project

(*Harmonisation and Strengthening of Risk Assessment and Risk Management Capacity in Biosafety Decision Making in Cambodia and Lao PDR*).

128. b) *Financial Sustainability* – not met. No formal estimates of financial requirements for the continuation of project results have been produced. However, it is clear that, in the short term at least, continued external financial resources are required to support those activities that build upon project results. While the TE was being executed, it appeared that biosafety implementation was in limbo while the Environmental Code was being finalised and it was unclear what the financial outcomes would be. In principle, the policy provisions developed under the project (national law on liability and redress pursuant to LMOs and draft Prakas on Standard for Cultivation and Field Trial of LMOs in Cambodia) will not require further funding but amendments may be needed for their incorporation into the Environmental Code. Potential mechanisms for financial sustainability through LMO testing fees were suggested by respondents but no evidence was provided to indicate that these fees are being considered at the higher administrative levels.

129. c) *Institutional Sustainability* - partly met. A level of commitment exists to the institutional arrangements as enshrined in the Biosafety Law and Sub-decree, and the draft law on liability and redress and draft regulations among those interviewed from different institutions (MOE, MAFF, GDCE, CamControl). However, the institutional reform currently being undertaken has resulted in uncertainty in terms of future commitment. The biosafety legal and oversight roles of MOE were not questioned by any respondents but the lack of consensus over which institution should be responsible for laboratory testing and other biosafety operations threatens to undermine institutional sustainability.

130. Sustainability criteria, indicators and status are summarised in the table below.

**Table 3.12: Sustainability - summary**

Criteria	Indicators	Status
a) <b>Socio-political Sustainability:</b> To what extent are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts?	Key social and political factors positively or negatively impacting project results	Partly met
b) <b>Financial Sustainability:</b> To what extent are the continuation of project results and the eventual impact of the project dependent on (continued) financial support? What is the likelihood that adequate financial resources will be or will become available to continue implementation the programs, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardise sustained project results and onward progress towards impact?	Estimates of financial requirements for sustained results  Estimates of future budget of key stakeholders	Not met
c) <b>Institutional Sustainability:</b> How robust are the institutional arrangements required to sustain project results and to lead those to impact on human behaviour and environmental resources, goods or services?	Level of commitment, indicated by formal agreements, recommendations, declarations, of key stakeholders on institutional frameworks including the BCH, that sustain project results	Partly met

### 3.9 Factors and Processes affecting Project Performance

131. The overall rating was Moderately Satisfactory, with one of the six factors and processes affecting project performance (quality of project management and supervision) substantially met, two partly met (stakeholder participation and cooperation, and country ownership and driven-ness), and two (preparation and readiness, and responsiveness to human rights and gender equity) not met. Detailed narratives for each criteria are provided below.

132. a) *Preparation and Readiness* – not met. There were no substantive changes made between project approval, the securing of funds and project mobilisation to address weaknesses in the project design despite weaknesses in project design as outlined in this report (Section 3.7). Stakeholders were engaged during the project inception period (UNEP (2017a)). However, there was no formal capacity assessment (Section 3.4.1) and formal partnership agreements were not produced. Initial staffing and financial arrangements for project activities were budgeted as part of the project.

133. b) *Quality of Project Management and Supervision* - partly met. There was a great deal of positive feedback regarding project management effectiveness (7 respondents) with a broad consensus that project outputs could not have been achieved without the knowledge, experience and energy of the NPC. However, four key stakeholders met were only aware of the project in general terms. No stakeholders met highlighted a focus on outcomes. This lack of a results focus is specifically highlighted in Section 3.4.2 and throughout this report. The PSC only met three times and there is no evidence that it was actively involved in providing leadership towards planned outcomes, for example, by leveraging the necessary resources for the project, and working with partners across various sectors, including potential donors. This lack of active involvement was also the case at the higher levels of MOE. As detailed in in Section 3.7, project reports were accurate and substantially complete. Project supervision was perceived to be effective (3 respondents). As highlighted in Section 3.7, there was insufficient emphasis on results-focused adaptive management) throughout the project.

134. c) *Stakeholder participation and cooperation* – partly met. There was widespread agreement among those interviewed that the organisations that participated in project activities have better capacities to sustain project results as a result of the project. However, collaboration with the private sector was very low despite the participation of Chambers of Commerce in project activities. Collaboration with international stakeholders, notably the Austrian Environmental Agency, was critical to project effectiveness. No formal inter-institutional agreements resulted from the project.

135. d) *Responsiveness to human rights and gender equity* - An effort was made to get a gender balance of those participating in project activities (PO) but data were not gender disaggregated. Given the objective of the project and its technical orientation, it is very difficult to envision how human rights considerations could be effectively incorporated in project activities. However, these considerations must be borne in mind when designing interventions such as risk analysis, which was not a focus of this project.

136. e) *Country ownership and driven-ness* - partly met. Political will is reflected in the continued support for biosafety from MOE and other government agencies, the passing of legislation, provision of staff for international forums, the perception of ownership, and the securing of in-kind cofinancing. However, there is still a great dependence on key individuals, notably the former NPC. This indicates a lack of country ownership and driven-ness as project outputs and outcomes need to be beyond individuals.

137. f) *Communication and public awareness* – partly met. Many of the project's activities were communication-related or contained a significant communication component. The reach of communication activities was likely to have been quite large with several broadcasts on national television and hundreds of people trained. Five respondents stated that the project helped increase awareness of biosafety but no surveys were carried out on the results of the project's communication-

related activities. However, there was a widespread feeling that biosafety awareness was still near zero in key subsections of the general public such as consumers and farmers (Section 3.4.2.2). The use of communication channels such as national television and the n-BCH has not maintained after project closure.

138. Criteria, indicators and status of factors affecting project performance are summarised in the table below.

**Table 3.13: Factors and processes affecting project performance - summary**

Criteria	Indicators	Status
a) <b>Preparation and Readiness:</b> Were appropriate measures taken to address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation?	<ul style="list-style-type: none"> <li>Degree to which project design weaknesses and changes between project approval, the securing of funds and project mobilisation were addressed in project inception documents.</li> <li>Changes in project implementation as recommendations in project inception documents.</li> </ul>	Not met
b) <b>Quality of Project Management and Supervision:</b> How adequate were project supervision plans, inputs and processes?	<ul style="list-style-type: none"> <li>Level of completeness and accuracy of reports</li> <li>Perception of effectiveness</li> <li>Documented backstopping activities by UN Environment to project staff</li> </ul>	Partly met
c) <b>Stakeholder participation and cooperation:</b> To what extent and how effectively did project management communicate and consult with stakeholders throughout the project to maximise collaboration and coherence between stakeholders including the participation of all differentiated groups.	<ul style="list-style-type: none"> <li>Local stakeholders (governmental agencies, academia and research bodies, private industry, organisations of beneficiaries, etc.) perceive better capacities to sustain project results, through improved understanding and participation</li> <li>Formal agreements, included recommendations, declarations, of key stakeholders relating to project results</li> <li>Collaboration with international stakeholders in capacity building activities [additional indicator].</li> </ul>	Partly met
d) <b>Responsiveness to human rights and gender equity:</b> To what extent has the project applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People, including adhering to UN Environment's Policy and Strategy for Gender Equality and the Environment.	<ul style="list-style-type: none"> <li>Level of completeness of gender and human rights analysis</li> <li>Degree to which gender and human rights considerations have been incorporated into project implementation</li> </ul>	Not met
e) <b>Country ownership and driven-ness:</b> How and how well did the project stimulate country ownership of project outputs and outcomes?	<ul style="list-style-type: none"> <li>Endorsement of project by governmental agencies</li> <li>Provision of counterpart funding</li> <li>Extent of participation of national and local agencies in project activities</li> <li>Perception of ownership by national and local agencies</li> </ul>	Partly met
f) <b>Communication and public awareness:</b> How and how well did the project communicate learning experiences, and influence attitudes and behaviour among wider communities and civil society at large?	<ul style="list-style-type: none"> <li>Learning and communication shared between project partners and interested groups</li> <li>Effectiveness of use of existing communication channels and networks</li> <li>Changed attitude and behaviour</li> <li>Sustainability of communication channels</li> </ul>	Partly met

## 4 CONCLUSIONS, LESSONS LEARNED AND RECOMMENDATIONS

## 4.1 Conclusions

### 139. **Conclusion 1: Project performance was moderately satisfactory at the activity and output level.**

The project was especially strong in its execution of training activities, production of documentation and, to a lesser extent in awareness-raising activities. This reflected the technical focus of the project, the role of the NPC and the TM in helping to recruit appropriately qualified and experienced national and international consultants and the availability of funding through the project. These were variables that were substantially within the project's control and their achievement reflects the fact that drivers related to project management at the individual level were largely met. The non-production of a strategic paper on national capacity for the management of LMOs entering Cambodia was substantially within the project's sphere of control. This omission would appear to indicate a project management perception that the groundwork for preparing a functional biosafety system in Cambodia had already been done prior to the project and all that was required was technical inputs. The project results demonstrate that this was not the case. The project also had control over the adequacy of the building used as an LMO laboratory, but sub-optimal premises were chosen both before and after the MOE located to its new building. The lack of testing undertaken was attributed to the absence of LMO applications, but many Cambodian products are tested to be certified as LMO-free. The possibility of providing such a service was not actively pursued by MOE. Partly completed outputs relating to the n-BCH indicate that project activities were not adequately mainstreamed.

### 140. **Conclusion 2: Project outputs were not sufficient for the achievement of planned outcomes.**

No outcomes were fully achieved. This reflected the project's activity focus and its incomplete theory of change as summarised in the Results Framework and Key Deliverables and Benchmarks, i.e. theory failure. For example, the listed training outputs alone would be insufficient to result in *Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms* (Outcome 2.1); and *Customs and border control staff trained to test presence of LMOs and more effective control of movement of LMOs across the Cambodian border* (Outcome 2.2). This reflects the project's almost exclusively technical focus as outlined above. The failure to substantially meet key drivers and assumptions such as Reference lab receives international accreditation and Consensus in designation of key labs (drivers); and National budget is healthy enough to cater for the biosafety needs identified, and Senior government officials champion the development of a more enabling policy environment for long-term sustainability (assumptions) resulted in failure to achieve planned outcomes such as Identified capacity needs mainstreamed into National plans and budgets (Outcome 1.2), and More effective control of movement of LMOs across the Cambodian border (Outcome 2.2). In addition to theory failure, there was implementation failure as detailed above.

### 141. **Conclusion 3: The project was aided by the support from and to individuals but there were weaknesses at the institutional and inter-institutional levels.**

Project drivers for all outputs that related to the individual commitment of project staff, consultants and collaborators were substantially met while those relating to commitment at the institutional and inter-institutional levels. Barriers at the inter-institutional levels are illustrated by the fact that there was widespread disagreement with the location of the LMO laboratory in the MOE buildings and the suggestion of several alternatives, and there was frustration from officers of different institutions about their lack of involvement in relevant meetings. Both were indicative of a silo mentality. The MOE appeared to show more tangible commitment to biosafety prior to the 2013 elections. This is illustrated by the fact that two NSCB meetings took place in 2012 and only one thereafter. The fact that the National Action Plan on Biosafety and Modern Biotechnology, which expired in 2014, was not updated during project implementation would appear to indicate that biosafety is a relatively low priority for MOE. Budget has not been made available to maintain project outputs such as the n-BCH which is no longer on line because server fees have not been paid. Long term commitment seems to be in limbo until the Environmental Code.

142. **Conclusion 4: Monitoring and evaluation were not sufficiently considered in project design and implementation.** There were no substantial changes to the project Results Framework during its inception phase which either indicates that changes were not necessary or that reappraisal was not systematically undertaken. No formal project M&E plan was produced, and this may have contributed to the project's activity and output orientation. A mid-term review would have facilitated reflection on what was done but also what was being achieved in terms of outputs towards impacts both for project management and key stakeholders. The findings of a mid-term review and, as importantly, the review process, could assist in the adaptive management process and a stronger-results focus.

143. **Conclusion 5: Sustainability was not sufficiently considered in project design and implementation.** There was a widespread impression that biosafety in Cambodia is largely dependent on external donor funding, which demonstrates a lack of country-ownership. The fact that MOE biosafety activities lapsed once project funding ceased illustrates this point. No project exit strategy or sustainability plan was produced, and it seemed that the main focus for continuity is to secure external funding. This is despite the fact that there is the potential for cost-recovery for biosafety activities. Such possibilities were raised during the project by the NPC and other individuals but were not pursued at the higher levels.

#### 4.1.1 Key Strategic Questions

144. The evaluation findings have been used to address the four strategic questions listed in the table below which are of interest to UN Environment and to which the project is believed to be able to make a substantive contribution. A five-point scale was used from: very low; low; medium; high; and very high.

**Table 4.1: The extent to which the project addressed key strategic questions**

Key Strategic Question	Extent to which the project addressed the question
1. To what extent was this project able to assist Cambodia to establish and consolidate a fully functional and responsive LMO detection and monitoring system in its national development plan that responds to their obligations under the Cartagena Protocol on Biosafety?	<b>Low:</b> The project strongly emphasised training activities to build the individual capacity of technicians working to implement LMO testing and the associated investment in equipment and protocols. However, this investment has not been translated into action on the ground in terms of actual testing and a functional monitoring system that is mainstreamed into the activities of the agencies mandated to undertake biosafety measures. Policy documents produced under the project have yet to be endorsed by government, the institutional arrangements agreed upon under the Law on Biosafety and Sub-decree are not fully operational, the laboratory procedures for LMO testing are not fully operational and the data management and public awareness work initiated under the project has not been maintained following the project's closure.
2. To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for effective enforcement of the Biosafety Law, Decrees and Sub-decrees on biosafety?	<b>Medium:</b> The project's contribution to institutional and technical capacity and awareness for effective enforcement of the Biosafety Law, decrees and sub-decrees on biosafety was not formally assessed. However, it was clear from TE interviews that the project was the major contributor to increased technical awareness and capacity for those working in a technical capacity in key institutions. However, there was no indication that this increased awareness and capacity at the individual level has been translated into awareness and capacity at the higher levels within those organisations responsible for biosafety in Cambodia.

Key Strategic Question	Extent to which the project addressed the question
3. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries and Authorities?	<b>Medium:</b> The project's technical outputs, such as SOPs for sampling and LMO detection, National Control Plan on Monitoring and Control of LMOs in Cambodia (draft), and the Law on Liability and Redress pursuant to Living Modified Organisms Application (draft), have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries and Authorities but it is unclear to what extent they have been utilised for this purpose.
4. To what extent are the outcome indicators verifiable, and record progress towards the achievement of the development objectives, as well as the obligations under the Cartagena Protocol?	<b>High:</b> Despite reservations about project design as detailed in Section 3.2. on the reconstructed TOC, the outcome indicators (several of which were actually output indicators), nonetheless, if verified would be powerful metrics for recording progress towards the achievement of the development objectives, as well as the obligations under the Cartagena Protocol. However, there was insufficient emphasis on outcome monitoring during this project so the degree to which these indicators were met cannot be authoritatively asserted.

#### 4.1.2 Project Performance

145. Ratings for project performance, in terms of evaluation criteria, are summarised in the table below.

**Table 4.2: The extent to which the project met evaluation criteria**

CRITERION	SUMMARY ASSESSMENT	RATING
<b>A. STRATEGIC RELEVANCE</b>	The Project Goal is in alignment with UNEP's MTS 2010-2013. The project builds upon previous projects dating back to 2004 for the development of a National Biosafety Framework and its implementation. The project has a very strong focus on strengthening technology and capacity-building (at the individual level at least) to implement the objectives of the Convention on Biological Diversity in line with UNEP/GEF/Donor Strategic Priorities and the Bali Strategic Plan. The project aligns with Cambodia's biodiversity policy, but Regional and Sub-regional environmental priorities are not mentioned, and linkages with other interventions are not made clear.	<b>S</b>
<b>B. QUALITY OF PROJECT DESIGN</b>	The ProDoc is difficult to follow in places as the sections are not self-contained. This means that several sections must be consulted to acquire the necessary information. The logical thread that connects the baseline with the intervention strategy (alternative) is not always clear. The technical sections are logically laid out but information relating to the project's enabling environment – policy and institutional, socio-political, economic and environmental are inadequate so the intervention is not clearly laid out in terms of its context.	<b>MS</b>
<b>C. NATURE OF EXTERNAL CONTEXT</b>	The project did not face an unusually challenging operational environment that is likely to negatively affect project in terms of: ongoing/high likelihood of conflict; ongoing/high likelihood of natural disaster, or; ongoing/high likelihood of change in national government. However, there was a change in Minister of Environment following the elections in 2013 and a reorganisation of the Ministry of Environment which did contribute to delays in project implementation.	<b>S</b>

CRITERION	SUMMARY ASSESSMENT	RATING
<b>D. EFFECTIVENESS</b>		<b>MU</b>
<b>I. ACHIEVEMENT OF OUTPUTS</b>	As per the reformulated theory of change, the project planned to deliver one preliminary output and thirteen other outputs in four strategies (Training, Public Participation, Infrastructure, Information). Eight outputs were completed, five partially completed and one not completed. The main successes were in the implementation of training activities, the development of methods and protocols and awareness-raising. Activities relating to information management were only partially completed because no data have been uploaded and the system is no longer on line since project closure. Upgrading laboratory facilities was only partially completed because of a lack of LMO samples to analyse and the inadequacy of the facility provided.	<b>MS</b>
<b>II ACHIEVEMENT OF OUTCOMES</b>	As per the reformulated TOC, the project planned to deliver nine direct outcomes in five categories (Capacity, Public Participation, Infrastructure, Information, Enforcement). No outcomes were fully achieved, four partially achieved and five not achieved. The partially achieved outcomes related to capacity building and public participation while outcomes not achieved included the mainstreaming of biosafety into National plans and budgets and more effective control of movement of LMOs across the Cambodian border. This low level of translation of outputs into outcomes relates to inadequacies in project design and implementation but also to failures of assumptions and drivers.	<b>MU</b>
<b>III. LIKELIHOOD OF IMPACT</b>	<p>Impact was rated to be moderately unlikely given the status of outputs, outcomes, drivers and assumptions. Of the drivers for all outputs, those relating to commitment at the level of individuals participating in the project were substantially met, while those relating to commitment at institutional and inter-institutional levels were only partly met. Of the eleven outputs to direct outcomes drivers, eight were partly met and three were not met. The major reason why some drivers were only partly met was that activities were restricted to those funded by the project. The remainder were not met because of the technical bias in project design, lack of demand for laboratory tests and Cambodia's fragmented biotechnology and biosafety institutional environment. One of the three direct outcome to intermediate state drivers was substantially met while two were not met. The fact that there were quality outputs with the potential for high utility illustrates that the project achieved in terms of some key outputs. However, the absence of an exit or communication strategy is illustrative of the project's limited strategic focus.</p> <p>Of the eight outputs to direct outcomes assumptions, four were partly met, three were not met and one was not possible to assess. A major reason why some assumptions were only partly met was that there was often a lack of a shared perspective on the importance or nature of biosafety (e.g. regarding public participation, long term collaboration on modern biotechnology, and senior government officials as champions). There was also the issue of relevant activities being restricted to those funded by the project, and there was concern that the capacity and knowledge was vested in individuals more than in institutions. Output to direct outcome assumptions that were not met reflected the issue of a lack of LMO applications, limited intra and intersectoral collaboration, and uncertain financial commitment at the national level. Of the six</p>	<b>MU</b>

CRITERION	SUMMARY ASSESSMENT	RATING
	<p>direct outcome to intermediate state assumptions, one was partly met, and five were not met. The assumption that was partly met related to LMO approvals are based on international good practice risk assessment and risk management principles and methodologies. The procedures exist but it remains to be seen how effectively they will be implemented. The unmet assumptions are crucial to the success of the project as a contribution to Cambodia's ability to comply with its CBP obligations, relating as they do to quality information, public participation, open and transparent processes, regional collaboration and financial, human and infrastructural resources.</p>	
<b>E. FINANCIAL MANAGEMENT</b>	<p>Regular and effective communication was carried out between financial and project management staff, all necessary documents were sent to UNEP, MOE prefinanced some project activities and no cases of irregularities were reported. An audit identified weaknesses in the internal control system and the recommendations were agreed upon and implemented by project management.</p>	<p><b>(EO Rating)</b> <b>MU</b> Data requested to facilitate a detailed assessment of the financial management criterion was not made available to the evaluation</p>
<b>F. EFFICIENCY</b>	<p>The project built upon relevant previous activities funded mainly through UNEP/GEF since 2004. However, there is a need to dedicate more staff to biosafety work and support beyond in-kind co-financing. There is the need to coordinate the Biosafety Secretariat beyond project activities and provide the resources to support it as defined in the law. The project produced most planned outputs but did not achieve its project planning / annual planning timelines. There were three budget re-phasals resulting from requests for extension. A major change was the increase in the budget for training and the reduction in the budget for accreditation. Spending was generally within what was allocated. The project was able to run additional workshops on the budgeted funds as the costs were relatively low. There is evidence for some adaptive management such as the increase in training in response to demand, but the reasons were not made explicit as part of a formalised M&amp;E process.</p>	<b>MU</b>
<b>G. MONITORING AND REPORTING</b>	<p>There was no formal monitoring plan and data were not disaggregated by gender or groups with low representation. This was a challenge as these indicators came in retrospectively and the project was primarily technical in nature so people with a suitable technical background must be deployed. This is not always easy to balance with inclusivity criteria. Reporting was mainly at activity and output level and did not fully facilitate timely tracking of results and progress towards projects objectives. Results were not fully used to improve project performance and to adapt to changing needs. There was a failure to capture leveraged co-finance and not all supporting information was provided.</p>	<b>MS</b>
<b>H. SUSTAINABILITY</b>	<p>MOE has been supportive of biosafety, but it is currently undergoing a period of change and it is not guaranteed that biosafety will continue to be a priority. Other stakeholders, including external funders are</p>	<b>MU</b>

CRITERION	SUMMARY ASSESSMENT	RATING
	interested in the development of biotechnology in Cambodia and have funded activities but their commitment to the CPB is not clear. The project placed little emphasis placed on working with neighbouring countries. No formal estimates of financial requirements for the continuation of project results have been produced. Further outside financial support will be needed in the immediate term. Potential mechanisms for financial sustainability through LMO testing fees exist but no evidence was provided to indicate that these fees are being considered.	
<b>FACTORS AFFECTING PERFORMANCE:</b>		<b>MS</b>
<b>PREPARATION AND READINESS</b>	There were no substantive changes made between project approval, the securing of funds and project mobilisation despite weaknesses in project design as outlined in this document.	<b>MU</b>
<b>PROJECT IMPLEMENTATION AND MANAGEMENT</b>	Project reports were accurate and substantially complete. Project supervision was perceived to be effective though there was further scope for adaptive management.	<b>MS</b>
<b>STAKEHOLDER PARTICIPATION AND PUBLIC AWARENESS</b>	The organisations that participated in project activities have better capacities to sustain project results as a result of the project. However, collaboration with the private sector was very low despite the participation of Chambers of Commerce in project activities. Collaboration with international stake-holders, notably the Austrian Environmental Agency, was critical to project effectiveness. No formal inter-institutional agreements resulted from the project.	<b>MS</b>
<b>OVERALL PROJECT RATING</b>	<b>The project was moderately successful at the activity and output level, but this was not translated into outcomes that were likely to contribute to the project's objective.</b>	<b>MU</b>

## 4.2 Lessons Learned

146. **Lesson 1: It is critical to build on the knowledge and experience base of biosafety “champions” in countries with existing biosafety capacity.** It is clear that the biosafety baseline in Cambodia at the beginning of the project was far from zero and the project has further reinforced this baseline. The project has helped to build awareness and capacity among individuals, mainly at the technical levels. There is also a potentially enabling policy and institutional environment. This base can be built upon, but it is critical that the current champions, such as the National Project Coordinator and technical staff at universities and research institutes, continue to be fully involved and that further champions are built at the higher managerial levels so that the work at the technical level can be better translated into decision-making.

147. **Lesson 2: Project planning, implementation, and monitoring and evaluation must focus on outcomes towards impacts as well as activities and outputs.** The Cambodia Biosafety Project was primarily technical in its focus. The activities of any technical project, even if they are efficiently executed, may not translate into the planned outcomes unless there is a suitable enabling environment. An implicit assumption in this project was that this enabling environment already existed in Cambodia. A results-based, participatory planning approach with a clear theory of change would help to identify impact pathways that include but also go beyond technical activities and outputs. This results-based evaluative thinking process cannot be restricted to the initial planning stages and must be maintained as part of an ongoing adaptive management system that operationalises the action learning cycle of planning, implementation, monitoring, reflection, learning and re-planning.

148. **Lesson 3: Consistent engagement from the Executing Agency throughout the project cycle is critical for project effectiveness.** The support of the Cambodia Biosafety Project Executing Agency (MOE) needs to go beyond project approval, participation in occasional meetings, and the provision of in-kind support. The agency must allocate full time staff to biosafety to ensure continuity and to maximise institutional learning. There must also be regular and frequent steering committee meetings throughout the project, and information dissemination channels such as the n-BCH must be maintained after project closure. This engagement is a key component of the project mainstreaming process which is an essential component of all aspects of project sustainability.

149. **Lesson 4: Synergies between key institutions needs to be maximised at all levels of the hierarchy to stimulate long term ownership.** The Cambodia Biosafety Project did manage to involve individuals from a wide range of institutions in project activities, notably those involving a training component. This reflects very well on project management. However, activities were not translated into a strengthened biosafety focus on the part of the concerned agencies. Customs staff, for example, are not checking for LMO imports despite the training received by front-end staff in detection methods. Complementary activities stressing the importance of biosafety and the training provided were not provided for staff at management levels. Synergies require the full participation of staff at all relevant levels in decision-making in a multi-sectoral arena such as biosafety.

## 4.3 Recommendations

1. **Recommendation 1: A future project is needed to build on the achievements of this project and to address some of its shortcomings.** The project succeeded in building awareness and capacity at technical levels within key agencies such as MOE, MAFF, universities and customs and this needs to be built upon at the institutional and inter-institutional levels. Laws and regulations exist which now need to be operationalised by MOE. A new project implemented by UN Environment and executed by MOE, to

build upon existing experience and results, can assist in this process. It is essential that such a project addresses both technical and institutional issues.

2. **Recommendation 2: Future projects need to optimise the comparative advantage of, and synergies among, the relevant institutions.** MOE has the mandate for biosafety at the policy level, but mandates also reside within MAFF, customs, CamControl and other agencies. To maximise effectiveness, future projects must make optimal use of existing capacity. For example, it would make sense to locate the biosafety laboratory within an institution that has the greatest potential for recruitment, utilisation, maintenance and career progression for molecular biologists. This is unlikely to be MOE who lacks the comparative advantage in molecular biology but has a critical role to play in governance. More likely candidate institutions include MAFF (and its agencies such as the Cambodian Agricultural Research and Development Institute and Agriculture and Food Processing Lab - CamLAPF) and certain universities such as the Royal University of Agriculture. Any future project must also put a strong emphasis on engagement of the private sector, who is a key biosafety player.

3. **Recommendation 3: Future projects need to include a formal mid-term review.** As articulated in Conclusion 4, a mid-term formative review is essential for a future project of this kind. This does not necessarily have to be led by external consultants. A formal, systematic, results-oriented internal review can be implemented as part of a transparent monitoring and evaluation framework that is based on action learning for adaptive management (see Recommendation 5). Although the process can be internal, it is important that sufficient resources are allocated by UN Environment for this evaluation including the necessary stakeholder consultations.

4. **Recommendation 4: Formalised results-based monitoring systems must be operational throughout future projects.** Formal reporting mechanisms are a necessary but not sufficient part of a fully functional, results-based planning, monitoring, evaluation and learning system that is a key component of adaptive management. The project management team need to embrace activities and outputs as a means of achieving outputs and ultimately impacts and utilise formal monitoring processes as a means of measuring progress and utilise this evidence as a planning tool as part of an adaptive management approach. Such a system must be embraced by the TM, the PM and those sitting on the PSC so that monitoring is understood to be everybody's responsibility and not just those serving in a formal project management capacity. Formal and costed training in the development and utilisation of results-based management practices should be conducted by through UN Environment during the development and implementation of a follow-up project to maximise capacity and buy-in.

5. **Recommendation 5: Future projects need to include a formal exit strategy/sustainability plan and build in cost-recovery measures.** The biosafety process in Cambodia needs to be sustainable at the socio-political, institutional and financial levels in the long term and plans need to be put in place in future projects for the movement toward this sustainability. Financial sustainability can be supported through cost-recovery for LMO testing, a process which is currently undertaken by foreign laboratories based in Vietnam and Thailand. The move to cost-recovery is not simple so the process must be executed early in a follow-up project. The other dimensions of sustainability also must be considered from day 1. The process of sustainability planning needs to be enshrined in a formal exit strategy/sustainability plan produced using a participatory and transparent process to ensure the necessary ownership. MOE needs to lead this process in close consultation with other agencies including representatives of the private sector. This process needs to take into account the activities of neighbouring countries (e.g. that of private laboratories in Vietnam and Thailand) to ensure that any cost-recovery mechanism is not undermined by competition.

## 5 ANNEXES

### Annex 1: Evaluation Terms of Reference

#### SECTION 1: PROJECT BACKGROUND AND OVERVIEW

##### Project rationale

Cambodia became a Party to the Convention on Biological Diversity (CBD) and the Cartagena Protocol on Biosafety (CPB) in 2002, and the Protocol entered into force in Cambodia in 2003. A law on biosafety was passed by the National Assembly in 2007 to regulate risks from Living Modified Organisms (LMOs) on the conservation and sustainable uses of Cambodia's biological resources. Cambodia possesses more than 2,000 rice varieties that need to be protected from gene flow of Genetically Modified rice in the region. Cambodia is however not planning to develop any LMOs in the near future as it is more likely to be a user rather than a producer of LMOs.

Under a UNEP/GEF funded project, Cambodia produced a national Biosafety Law and a Sub-decree on the mechanism for implementing this law. The law consists of 45 articles dealing with the trans-boundary movement of LMOs, risk assessment and mechanisms for the release of LMOs into the environment. Cambodia also set up a policy on biosafety and modern biotechnology, a regulatory framework on biosafety, a system for administrative handling of LMOs applications, a system for enforcement of LMOs application, and public awareness, education and participation.

Cambodia still needs a greater capacity for LMOs detection and identification to fully support decision making for their release and risk management; issues related to LMOs, including modern biotechnology, are still not well understood by most stakeholders including academia and research institutes. A national action plan for capacity building in modern biotechnology and biosafety is therefore required in order to carry out the proposed research and development agenda, and for the transfer of innovations into the market place, while keeping ministries/institutions and the general public aware of these developments. A better capacity of LMOs detection in Cambodia would respond to the safe and sound management of biological diversity, the sustainable use of biological resources, and environmentally sound management of biotechnology in the country.

This GEF funded project is expected to provide institutional and human technical capacity to Cambodia so as to be able to fully detect LMOs destined to the country. The capacity would focus on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination, and risk assessment. The project is also a good opportunity to provide a connection with other non-GEF funded projects such as the Phyto-sanitary and Standard development for foods and feeds in Cambodia which is funded by the Asia Development Bank, and an agriculture food chain project funded by the United States Agency for International Development (USAID). These projects could eventually make synergistic impacts to the conservation of species, environment and human health.

Implementing this project could also positively make impacts to Rio principle 15 and 16 implementation, implementation of article 19 of the CBD, and also various articles of the CPB, with regard to risk assessment, risk management, LMOs detection and identification, handling request of LMOs application and safe use modern biotechnology in agriculture. This may result in preserving domestic and regional species of biodiversity, which are global significance. The project is also expected to contribute to poverty reduction and sustainable development setting up regulatory regime and enforcing of domestic law and sub-decree on biosafety.

##### Project objectives and components

The overarching goal of this project is to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB. It is consistent with the "Program Document for GEF Support to Biosafety in GEF 4" approved in April 2008.

. The project objective is to build human and infrastructure capacity for LMO detection, with focus on the development of capacities for the detection of LMOs and monitoring of their environmental effects, along with capacity for safe handling of LMOs, information dissemination and research capacity for risk assessment of LMOs. Emphasis on these areas will ensure sustainable development, and preserve biodiversity and poverty reduction. Emphasis on these areas will ensure sustainable development and preserve biodiversity and poverty reduction. To achieve these objective, the project out expected results under four main components (the fifth is a project management component) as shown in table 2 below:

**Table 2: project Components and Expected Results<sup>6</sup>**

project Component	Outputs	Expected Results/Outcomes
Component 1: Identification and	Accurate and comprehensive baseline information on national capacities in	Accurate and comprehensive baseline information on national capacities in

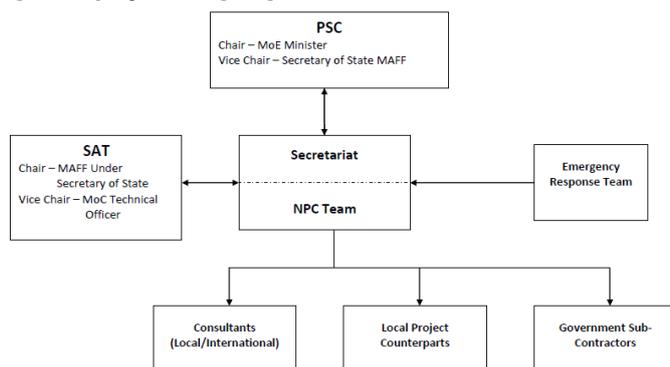
<sup>6</sup> A detailed Results Framework is available in Appendix 4 and Appendix 7 of the National project Document (2010)

project Component	Outputs	Expected Results/Outcomes
analysis of LMO detection and monitoring needs	Infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country. Identified capacity needs mainstreamed into National plans and budgets	Infrastructure, biosafety and biotechnology manpower needs for LMO detection and monitoring in the country Identified capacity needs mainstreamed into National plans and budgets
Component 2: Training and Public Understanding	Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms. More effective control of movement of LMOs/LMOs across Cambodian border. Enhanced ability to comply with obligations of CPB. Staff trained in public communication.	Institutional capacity for LMO detection, including operation and maintenance of laboratory equipment in accordance with international norms. More effective control of movement of LMOs/LMOs across Cambodian border. Enhanced ability to comply with obligations of CPB. Staff trained in public communication. Active public participation after increased understanding
Component 3: Improvement of Infrastructure	Identified laboratory upgraded according to international standard required for LMO detection. Enhanced capacity for in-country detection and monitoring of LMOs More effective enforcement of the Biosafety Law, decrees and sub-decrees, better border control and field tests Improved capacity to comply with obligations of CPB	Identified laboratory upgraded according to international standard required for LMO detection. Enhanced capacity for in-country detection and monitoring of LMOs More effective enforcement of the Biosafety Law, decrees and sub-decrees, better border control and field tests Improved capacity to comply with obligations of CPB.
Component 4: Establish an Information System	National Information System for Management of Data on Biosafety & Biotechnology linked with BCH, existing national databases and international info resources Scientific basis for resolving legal disputes on LMO labelling and noncompliance	National Information System for Management of Data on Biosafety & Biotechnology linked with BCH, existing national databases and international info resources Within 36 months at least 2 officials at every point of entry will be trained in enforcement of trans boundary movement procedure

### Executing Arrangements

The project was implemented by UN Environment (Implementing Agency). The UN Environment unit responsible for project implementation was the Division of Environmental Policy Implementation (Law Division). At the national level, the Ministry of Environment of Cambodia was the National Executing Agency (NEA), responsible for project execution through a Project Steering Committee (PSC), and a National Project Coordination team. The National Executing Agency worked on behalf of Cambodia's Government for the overall execution of the project. It was also responsible for the appointment of the National Project Coordinator (NPC) and provision of institutional support to the project team. A National Project Coordinator (NPC) was responsible for the overall co-ordination, management and supervision of all aspects of the National project. The NPC reported to the Implementing Agency, and liaised closely with the chair and members of the PSC in order to ensure that progress is made according to the work plan for the project. The NPC was responsible for all substantive, managerial and financial reports from the project and their timely submission to the Implementing Agency, ensuring that these met UNEP and GEF requirements. The NPC also supervised the National Project Coordinating Team as well as managed all other consultants appointed for the execution of the project. A Project Steering Committee (PSC) was appointed to oversee the project progress through receipt of periodic progress reports and make recommendations to UNEP on the need to revise any aspects of the Results Framework or the M&E plan. The PSC was required to leverage the necessary resources to the project, working with all partners across various sectors, including potential donors. The organizational chart for the project is shown in Figure 1 below.

**Figure 1: project’s organigram**



PSC: project Steering Committee

SAT: Scientific Advisory Team

MAFF: Ministry of Agriculture, Forestry and Fisheries

MoC: Ministry of Commerce

MoE: Ministry Environment

NPC: National project Coordination [Team]

### Project Cost and Financing

The project falls under the medium-size project (MSP) category, with an overall project of US\$1,656,528 made up of a GEF allocation of \$656,528, and a co-financing support of \$1,000,000 from various partners, both in cash and in-kind, as well as in-kind support from the government (such as building of a new laboratory, government officials and staff, official communications and collaboration with both public, private and non-governmental organizations, and various other necessary utilities).

The funding is focused on providing additional equipment, training tools and on the job training to technical staff with mandates on monitoring, detection and enforcement activities related to transboundary movement of LMOs.

**Table 3. Estimated project budget by component (USD)**

Source	Amount (USD)
GEF financing	656,528
Co-financing	1,000,000
Total	1,656,528

## SECTION 2. OBJECTIVE AND SCOPE OF THE EVALUATION

### Key Evaluation principles

Evaluation findings and judgements should be based on sound evidence and analysis, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

The “Why?” Question. As this is a terminal evaluation and similar interventions are envisaged for the future, particular attention should be given to learning from the experience. Therefore, the “Why?” question should be at the front of the consultants’ minds all through the evaluation exercise and is supported by the use of a theory of change approach. This means that the consultants need to go beyond the assessment of “what” the project performance was, and make a serious effort to provide a deeper understanding of “why” the performance was as it was. This should provide the basis for the lessons that can be drawn from the project.

Baselines and counterfactuals. In attempting to attribute any outcomes and impacts to the project intervention, the evaluator should consider the difference between what has happened with, and what would have happened without, the project. This implies that there should be consideration of the baseline conditions, trends and counterfactuals in relation to the intended project outcomes and impacts. It also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions, trends or counterfactuals 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.

Communicating evaluation results. A key aim of the evaluation is to encourage reflection and learning by UN Environment staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons. Clear and concise writing is required on all evaluation deliverables. Draft and final versions of the main evaluation report will be shared with

key stakeholders by the Evaluation Office. There may, however, be several intended audiences, each with different interests and needs regarding the report. The Evaluation Manager will plan with the consultant which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some or all of the following: a webinar, conference calls with relevant stakeholders, the preparation of an evaluation brief or interactive presentation.

### **Objective of the Evaluation**

In line with the UN Environment Evaluation Policy<sup>7</sup> and the UN Environment Programme Manual<sup>8</sup>, the Terminal Evaluation (TE) is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment and the project's main partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation.

### **Key Strategic Questions**

In addition to the evaluation criteria outlined from para. 8 below, the evaluation will address the strategic questions listed below. These are questions of interest to UN Environment and to which the project is believed to be able to make a substantive contribution:

1. To what extent was this project able to assist Cambodia to establish and consolidate a fully functional and responsive LMO detection and monitoring system in its national development plan that responds to their obligations under the Cartagena Protocol on Biosafety?
2. To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for effective enforcement of the Biosafety Law, decrees and sub-decrees on biosafety?
3. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries and Authorities?
4. To what extent are the outcome indicators verifiable, and record progresses towards the achievement of the development objectives, as well as the obligations under the Cartagena Protocol?

### **Evaluation Criteria**

All evaluation criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the criteria and a link to a table for recording the ratings is provided in Annex 1). A weightings table will be provided in excel format (link provided in Annex 1) to support the determination of an overall project rating. The set of evaluation criteria are grouped in nine categories: (A) Strategic Relevance; (B) Quality of project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the achievement of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance. The evaluation consultant can propose other evaluation criteria as deemed appropriate.

### **Strategic Relevance**

The evaluation will assess, in line with the OECD/DAC definition of relevance, 'the extent to which the activity is suited to the priorities and policies of the target group, recipient and donor'. The evaluation will include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

### **Alignment to the UN Environment Medium Term Strategy<sup>9</sup> (MTS) and Programme of Work (POW)**

The evaluation should assess the project's alignment with the MTS and POW under which the project was approved and include reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW.

<sup>7</sup> <http://www.UNEnvironment.org/eou/StandardsPolicyandPractices/UNENVIRONMENTEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

<sup>8</sup> <http://www.UNEnvironment.org/QAS/Documents/UNENVIRONMENTProgrammeManualMay2013.pdf>. *This manual is under revision.*

<sup>9</sup> UN Environment's Medium Term Strategy (MTS) is a document that guides UN Environment's programme planning over a four-year period. It identifies UN Environment's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes.

### **Alignment to UN Environment /GEF/Donor Strategic Priorities**

Donor, including GEF, strategic priorities will vary across interventions. UN Environment strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building<sup>10</sup> (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries. GEF priorities are specified in published programming priorities and focal area strategies.

### **Relevance to Regional, Sub-regional and National Environmental Priorities**

The evaluation will assess the extent to which the intervention is suited, or responding to, the stated environmental concerns and needs of the country, sub-region or region where it is being implemented. Examples may include: national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements, etc.

### **Complementarity with Existing Interventions**

An assessment will be made of how well the project, either at design stage or during the project mobilization, took account of ongoing and planned initiatives (under the same sub-programme, other UN Environment sub-programmes, or being implemented by other agencies) that address similar needs of the same target groups. The evaluation will consider if the project team, in collaboration with Regional Office and Sub-Programme Coordinator, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include UNDAFs or One UN programming. Linkages with other interventions should be described and instances where UN Environment's comparative advantage has been particularly well applied should be highlighted.

Factors affecting this criterion may include: stakeholders' participation and cooperation; responsiveness to human rights and gender equity and country ownership and driven-ness.

### **Quality of project Design**

The quality of project design is assessed using an agreed template during the evaluation inception phase, ratings are attributed to identified criteria and an overall project Design Quality rating is established. This overall project Design Quality rating is entered in the final evaluation ratings table as item B. In the Main Evaluation Report a summary of the project's strengths and weaknesses at design stage is included.

Factors affecting this criterion may include (at the design stage): stakeholders participation and cooperation and responsiveness to human rights and gender equity, including the extent to which relevant actions are adequately budgeted for.

### **C. Nature of External Context**

At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable and unexpected external operating context, the overall rating for Effectiveness may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

### **D. Effectiveness**

The evaluation will assess effectiveness across three dimensions: achievement of outputs, achievement of direct outcomes and likelihood of impact.

#### **Achievement of Outputs**

The evaluation will assess the project's success in producing the programmed outputs (products and services delivered by the project itself) and achieving milestones as per the project design document (ProDoc). Any formal modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, a table should be provided showing the original formulation and the amended version for transparency. The achievement of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their usefulness and the timeliness of their delivery. The evaluation

<sup>10</sup> <http://www.UN Environment.org/GC/GC23/documents/GC23-6-add-1.pdf>

will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards.

Factors affecting this criterion may include: preparation and readiness and quality of project management and supervision<sup>11</sup>.

### **Achievement of Direct Outcomes**

The achievement of direct outcomes is assessed as performance against the direct outcomes as defined in the reconstructed<sup>12</sup> Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation should report evidence of attribution between UN Environment's intervention and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UN Environment's contribution should be included.

Factors affecting this criterion may include: quality of project management and supervision; stakeholders' participation and cooperation; responsiveness to human rights and gender equity and communication and public awareness.

### **Likelihood of Impact**

Based on the articulation of longer term effects in the reconstructed TOC (i.e. from direct outcomes, via intermediate states, to impact), the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the EOU website (<http://www.unep.org/evaluation/>) and is supported by an excel-based flow chart called, Likelihood of Impact Assessment (see Annex 1). Essentially the approach follows a 'likelihood tree' from direct outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

The evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects. Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental, Social and Economic Safeguards.<sup>13</sup>

The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication<sup>14</sup> as part of its Theory of Change and as factors that are likely to contribute to longer term impact.

Ultimately UN Environment and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-term or broad-based changes. However, the evaluation will assess the likelihood of the project to make a substantive contribution to the high-level changes represented by UN Environment's Expected Accomplishments, the Sustainable Development Goals<sup>15</sup> and/or the high-level results prioritised by the funding partner.

Factors affecting this criterion may include: quality of project management and supervision, including adaptive project management; stakeholders participation and cooperation; responsiveness to human rights and gender equity; country ownership and driven-ness and communication and public awareness.

## **E. Financial Management**

Financial management will be assessed under three broad themes: completeness of financial information, communication between financial and project management staff and compliance with relevant UN financial management standards and procedures. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output level and will be compared with the approved budget. The evaluation will assess the level of communication between the Task Manager and the Fund Management

<sup>11</sup> In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.

<sup>12</sup> UN Environment staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during an evaluation will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a TOC will need to be constructed in the inception stage of the evaluation.

<sup>13</sup> Further information on Environmental, Social and Economic Safeguards (ESES) can be found at <http://www.UN Environment.org/about/eses/>

<sup>14</sup> *Scaling up* refers to approaches being adopted on a much larger scale, but in a very similar context. Scaling up is often the longer term objective of pilot initiatives. *Replication* refers to approaches being repeated or lessons being explicitly applied in new/different contexts e.g. other geographic areas, different target group etc. Effective replication typically requires some form of revision or adaptation to the new context. It is possible to replicate at either the same or a different scale.

<sup>15</sup> A list of relevant SDGs is available on the EO website [www.UN Environment.org/evaluation](http://www.UN Environment.org/evaluation)

Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach. The evaluation will verify the application of proper financial management standards and adherence to UN Environment's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted.

Factors affecting this criterion may include: preparation and readiness and quality of project management and supervision.

#### **F. Efficiency**

In keeping with the OECD/DAC definition of efficiency, the evaluation will assess the cost-effectiveness and timeliness of project execution. Focussing on the translation of inputs into outputs, cost-effectiveness is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. Timeliness refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The evaluation will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The evaluation will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. The evaluation will also consider the extent to which the management of the project minimised UN Environment's environmental footprint.

Factors affecting this criterion may include: preparation and readiness (e.g. timeliness); quality of project management and supervision and stakeholders' participation and cooperation.

#### **G. Monitoring and Reporting**

The evaluation will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

##### **Monitoring Design and Budgeting**

Each project should be supported by a sound monitoring plan that is designed to track progress against SMART<sup>16</sup> indicators towards the achievement of the projects outputs and direct outcomes, including at a level disaggregated by gender or groups with low representation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

##### **Monitoring Implementation**

The evaluation will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards projects objectives throughout the project implementation period. It will also consider how information generated by the monitoring system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The evaluation should confirm that funds allocated for monitoring were used to support this activity.

##### **Project Reporting**

UN Environment has a centralised project Information Management System (PIMS) in which project managers upload six-monthly status reports against agreed project milestones. This information will be provided to the Evaluation Consultant(s) by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (specifically the project Implementation Reviews and Tracking Tool). The evaluation will assess the extent to which both UN Environment and donor reporting commitments have been fulfilled.

Factors affecting this criterion may include: quality of project management and supervision and responsiveness to human rights and gender equity (e.g. disaggregated indicators and data).

<sup>16</sup> SMART refers to indicators that are specific, measurable, assignable, realistic and time-specific.

## **H. Sustainability**

Sustainability is understood as the probability of direct outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes. Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of direct outcomes may also be included.

### **Socio-political Sustainability**

The evaluation will assess the extent to which social or political factors support the continuation and further development of project direct outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the evaluation will consider whether individual capacity development efforts are likely to be sustained.

### **Financial Sustainability**

Some direct outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to undertake actions to enforce the policy. Other direct outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new resource management approach. The evaluation will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the direct outcomes of a project have been extended into a future project phase. The question still remains as to whether the future project outcomes will be financially sustainable.

### **Institutional Sustainability**

The evaluation will assess the extent to which the sustainability of project outcomes is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure.

Factors affecting this criterion may include: Stakeholders participation and cooperation; responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined); communication and public awareness and country ownership and driven-ness.

### **Factors and Processes Affecting Project Performance**

(These factors are rated in the ratings table, but are discussed as cross-cutting themes as appropriate under the other evaluation criteria, above).

### **Preparation and Readiness**

This criterion focuses on the inception or mobilisation stage of the project. The evaluation will assess whether appropriate measures were taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular the evaluation will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. (project preparation is covered in the template for the assessment of project Design Quality).

### **Quality of project Management and Supervision**

In some cases, 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UN Environment.

The evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including project Steering Committee, Scientific Advisory Team, etc.); communication and collaboration with UN Environment colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive project management should be highlighted.

### **Stakeholder Participation and Cooperation**

Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs and target users of project outputs and any other collaborating agents external to UN Environment. The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups, should be considered.

### **Responsiveness to Human Rights and Gender Equity**

The evaluation will ascertain to what extent the project has applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the evaluation will assess to what extent the intervention adheres to UN Environment's Policy and Strategy for Gender Equality and the Environment.

The report should present the extent to which the intervention, following an adequate gender analysis at design stage, has implemented the identified actions and/or applied adaptive management to ensure that Gender Equity and Human Rights are adequately taken into account. In particular, the evaluation will consider to what extent project design (section B), the implementation that underpins effectiveness (section D), and monitoring (section G) have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

### **Country Ownership and Driven-ness**

The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. The evaluation will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices. This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. This ownership should adequately represent the needs and interests of all gender and marginalised groups.

### **Communication and Public Awareness**

The evaluation will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The evaluation should consider whether existing communication channels and networks were used effectively, including meeting the differentiated needs of gender and marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the evaluation will comment on the sustainability of the communication channel under socio-political, institutional or financial sustainability, as appropriate.

## **SECTION 3. EVALUATION APPROACH, METHODS AND DELIVERABLES**

The Terminal Evaluation will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings.

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

#### **A desk review of:**

- Relevant background documentation, inter alia UNEP and GEF-IV policies, strategies and programmes pertaining to biosafety at the time of the project's approval;
- project design documents (including project design approvals/endorsement, GEF Secretariat project Review sheet, approved project document (ProDoc), Annual Work Plans and Budgets or equivalent, revisions to the project (project Document Supplement), the logical/results framework and its budget;
- project reports such as six-monthly progress reports including the project Implementation Reviews and Tracking Tool etc., quarterly financial expenditure reports, progress reports from collaborating partners, relevant meeting minutes, relevant correspondence, etc.

- project outputs, as applicable, based on the results framework;
- Any other documentation deemed relevant for the accurate assessment of the project's implementation.

**Interviews** (individual or in group) with:

- UN Environment Task Manager (TM) – Alex Owusu-Biney;
- project management team based in the project countries;
- UN Environment Fund Management Officer (FMO) - Paul Vrontamitis;
- Sub-Programme Coordinator – Cristina Zucca ;
- project partners – relevant government ministries, national and local non-governmental organizations, private sector, universities and research institutes;
- Other relevant resource persons.

**Surveys** - as deemed appropriate, and based on the stakeholders analysis

**Field visits** to include meetings with relevant project participants.

**Other data collection tools** as will be found appropriate to supplement information from the other sources.

**Evaluation Deliverables and Review Procedures**

The consultant will prepare and submit the following deliverables:

Inception Report: (see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.

Draft and Final Evaluation Report: (see links in Annex 1) containing an executive summary that can act as a stand-alone document; detailed analysis of the evaluation findings organised by evaluation criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.

Evaluation Brief: a 2-page summary of key evaluation results for wider dissemination through the EOU website.

**Detailed Review Procedure**

Review procedure for the evaluation report. The evaluation team will submit a draft report to the Evaluation Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Evaluation Manager will share the cleared draft report with the project Manager, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward revised draft report (corrected by the evaluation team where necessary) to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Evaluation Manager for consolidation. The Evaluation Manager will provide all comments to the evaluation team for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

Based on a careful review of the evidence collated by the evaluation consultants and the internal consistency of the report, the Evaluation Manager will provide an assessment of the ratings in the final evaluation report. Where there are differences of opinion between the evaluator and the Evaluation Manager on project ratings, both viewpoints will be clearly presented in the final report. The Evaluation Office ratings will be considered the final ratings for the project.

The Evaluation Manager will prepare a quality assessment of the first and final drafts of the main evaluation report, which acts as a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in template listed in Annex 1.

At the end of the evaluation process, the Evaluation Office will prepare a Recommendations Implementation Plan in the format of a table, to be completed and updated at regular intervals by the Task Manager. The Evaluation Office will track compliance against this plan on a six monthly basis.

**The Consultant**

For this evaluation, one consultant will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager (Pauline Marima), in consultation with the UN Environment Task Manager (Alex Owusu-Biney), Fund

Management Officer (Paul Vrontamitis<sup>17</sup>) and the Sub-programme Coordinator of the Environmental Governance Sub-programme (Cristina Zucca). The consultant will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation. It is, however, the consultant's individual responsibility to arrange for their travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize online surveys, and any other logistical matters related to the assignment. The UN Environment Task Manager and project teams will, where possible, provide logistical support (formal introductions, meetings etc.) allowing the consultant to conduct the evaluation as efficiently and independently as possible.

The consultant will be hired over the period October 2017 to February 2018 during which time the evaluation deliverables listed in Section 10 'Evaluation Deliverables' above should be submitted.

S/he should have: an advanced university degree in sciences, evaluation experience preferably using a Theory of Change approach, at least 15 years' experience in environmental management or a related field, with a preference for specific expertise in the area of biosafety and biodiversity. Knowledge of English language along with excellent writing skills in English is required. Experience in managing partnerships, knowledge management and communication is desirable for all evaluation consultants.

The consultant will be responsible, in close consultation with the Evaluation Office of UN Environment, for overall management of these evaluations and timely delivery of their outputs, described above in Section 10 Evaluation Deliverables, above. The consultant will ensure that all evaluation criteria and questions are adequately covered. Detailed guidelines for the Evaluation Consultant can be found on the Evaluation Office of UN Environment website: (<http://web.unep.org/evaluation/working-us/working-us>).

**Specific Responsibilities:**

The Consultant will be responsible, in close consultation with the Evaluation Office of UN Environment, for overall management of the evaluation and timely delivery of its outputs, described in Section 10 Evaluation Deliverables, above. The consultant will ensure that all evaluation criteria and questions are adequately covered. S/he will be responsible for the evaluation design, data collection and analysis, and report-writing. More specifically:

Inception phase of the evaluation, including:

- preliminary desk review and introductory interviews with project staff;
- draft the reconstructed Theory of Change of the project;
- prepare the evaluation framework;
- develop the desk review, interview protocols, and data collection and analysis tools;
- plan the evaluation schedule;
- prepare the Inception Report, incorporating comments received from the Evaluation Office.

Data collection and analysis phase of the evaluation, including:

- conduct further desk review and in-depth interviews with project implementing and executing agencies, project partners and project stakeholders;
- conduct an evaluation mission to Turkey and India to visit the project locations, interview project partners and stakeholders, including a good representation of local communities. Ensure independence of the evaluation and confidentiality of evaluation interviews.
- regularly report back to the Evaluation Office on progress and inform of any possible problems or issues encountered and;
- keep the project/Task Manager informed of the evaluation progress and engage the project/Task Manager in discussions on emerging findings throughout the evaluation process.

Reporting phase, including:

- draft the Main Evaluation Report, ensuring that the evaluation report is complete, coherent and consistent with the Evaluation Office guidelines both in substance and style;
- liaise with the Evaluation Office on comments received and finalize the Main Evaluation Report, ensuring that comments are taken into account
- prepare a Response to Comments annex for the main report, listing those comments not accepted by the Evaluation Consultant and indicating the reason for the rejection; and
- prepare a 2-page summary of the key evaluation findings and lessons;

<sup>17</sup> Ruth Irungu supports Paul Vrontamitis in the fund management of the projects

Managing relations, including:

- maintain a positive relationship with evaluation stakeholders, ensuring that the evaluation process is as participatory as possible but at the same time maintains its independence;
- communicate in a timely manner with the Evaluation Office on any issues requiring its attention and intervention.

#### Schedule of the evaluation

The table below presents the tentative schedule for the evaluation.

**Table 4. Tentative schedule for the evaluation**

Milestone	Tentative schedule
Kick-off meeting (via Skype)	October 2017
Inception Report	Early October 2017
Data collection and analysis, desk-based interviews and surveys	October-November 2017
Field Mission approx. 5 days in Cambodia (based on meeting arrangements and available budget)	November 2017
Draft report to Evaluation Manager (and Peer Reviewer)	November 2017
Draft Report shared with UN Environment Task Manager and project Team	December 2017
Draft Report shared with wider group of stakeholders	January 2018
Final Report	January-February 2018

#### Contractual Arrangements

Evaluation Consultants are selected and recruited by the Evaluation Office of UN Environment under an individual Special Service Agreement (SSA) on a “fees only” basis (see below). By signing the service contract with UN Environment/UNON, the consultant certifies that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project’s executing or implementing units. All consultants are required to sign the Code of Conduct Agreement Form.

Fees will be paid on an instalment basis, paid on acceptance by the Evaluation Office of expected key deliverables. The schedule of payment is as follows:

**Table 5. Schedule of Payment for the Consultant:**

Deliverable	Percentage Payment
Approved Inception Report	30%
Approved Draft Main Evaluation Report	40%
Approved Final Main Evaluation Report	30%

Fees only contracts: Air tickets will be purchased by UN Environment and 75% of the DSA for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Evaluation Office and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

The consultant may be provided with access to UN Environment’s Programme Information Management System (PIMS) and if such access is granted, the consultant agrees not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report.

In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UN Environment Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultants have improved the deliverables to meet UN Environment’s quality standards.

If the consultant fails to submit a satisfactory final product to UN Environment in a timely manner, i.e. before the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants’ fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

## Annex 2: References used to compile the evaluation report

- Evaluation Office of UNEP (2015). Formative Evaluation of the UNEP Medium-term Strategy 2014-2017: A review of UNEP programming processes and documents.
- FAO (2011). FAO National Medium Term Priority Framework 2011-2015 in Cambodia. Food and Agriculture Organisation of the United Nations.
- GEF Evaluation Office (2009). The ROTI handbook: Towards enhancing the impacts of environmental projects.
- Global Environment Facility (2000). Initial Strategy for Assisting Countries to Prepare for the Entry into force of the Cartagena Protocol on Biosafety. No. GEF/C.16/4/Rev.1.
- Global Environment Facility (2006). Evaluation of GEF Support for Biosafety: Full Report.
- MOE (2013a). Standard Operation Procedure for the Detection of Living Modified Organisms – Protein Based Methods.
- MOE (2013b). Standard Operation Procedure for the Detection of Living Modified Organisms – Nucleic Acid Based Methods.
- MOE (2013c). UNEP GEF PIR Fiscal Year 13
- MOE (2014a). National Control Plan on Monitoring and Control of LMOs in Cambodia (Draft document).
- MOE (2014b). UNEP GEF PIR Fiscal Year 14
- MOE (2015a). UNEP GEF PIR Fiscal Year 15
- MOE (2016a). UNEP GEF PIR Fiscal Year 16
- MOE (2010). Situation Analysis for the Development of the Capacity to Detect and Monitor Transboundary Movement of LMOs in Cambodia. Phnom Penh, Cambodia: Ministry of Environment.
- MOE (2004). National Biosafety Framework for Cambodia. Phnom Penh, Cambodia: Ministry of Environment.
- MOE/NSCB (2013). Law on Liability and Redress pursuant to Living Modified Organisms Application (first draft).
- Narendja, F. & Heissenberger, A. (2013). First Mission Report (19/02/2013 to 01/03/2013).
- Narendja, F. (2013). Second Mission Report (13/10/2013 to 26/10/2013).
- Narendja, F. (2014a). Third Mission Report (24/03/2014 to 04/04/2014).
- Narendja, F. (2014b). Fourth Mission Report (10/11/2014 to 21/11/2014).
- RGC (2007). Thematic Assessments and Action Plan for the Three Conventions: CBD, UNFCCC and UNCCD to Contribute to Poverty Alleviation. Phnom Penh, Cambodia: Ministry of Environment.
- RGC (2010). National Action Plan on Biosafety and Modern Biotechnology (2010-2014). Phnom Penh, Cambodia: Ministry of Environment.
- RGC (2012). The Inception Consultation Workshop on Capacity Building on Detection and Monitoring LMOs. Sun Way Hotel.

RGC, 2014. The Report of National Information Management System on Biosafety and Biotechnology. Phnom Penh, Cambodia: Ministry of Environment.

RGC (2013a). Identifying the Elements for Public Awareness Raising: Living Modified Organisms (LMOs) Detection and Monitoring in Cambodia. Phnom Penh, Cambodia.

RSG (2013b). Proceedings of the Training Workshop on LMOs Detection Based on Protein Analysis. February 2013, Battambang Province.

RSG (2013c). Summary Report of the 1st Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. 20-23 May 2013, Kampot Province.

RSG (2013d). Summary Report of the 3rd Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. October 21-24 2013, Kratie Province

RSG (2013e). Agenda of the 4th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. October 21-24 2013, Kratie Province (in Khmer).

RSG (2014c). Summary Report of the 6th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. September 3-5 2014, Koh Kong Province.

RSG (2015b). Summary Report of the 8th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. June 16-17 2015, Preah Sihanouk Province.

RSG (2015c). Summary Report of the 9th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. December 23-25 2015, Siem Reap Province.

RSG (2016a). Summary Report of the 10th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. March 23-25 2016, Battambang Province.

RSG (2016b). Summary Report of the 11th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. March 28-30 2016, Sihanoukville Province.

SCBD (2000). Cartagena Protocol on Biosafety to the Convention on Biological Diversity: text and annexes [online]. Montreal: Secretariat of the Convention on Biological Diversity. No. 9292250116. Available from: <https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf>.

SCBD (2010). Strategic Plan for the Cartagena Protocol on Biosafety for the Period 2011-2020 (BS-V/16, Annex I) [online]. Secretariat of the Convention on Biological Diversity. Available from: [http://bch.cbd.int/protocol/issues/cpb\\_stplan\\_txt.shtml](http://bch.cbd.int/protocol/issues/cpb_stplan_txt.shtml) [Accessed 3 Nov 2017].

SCBD (2011). Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety. [online]. Montréal: Secretariat of the Convention on Biological Diversity. Available from: <http://collections.banq.qc.ca/ark:/52327/2161306> [Accessed 3 Nov 2017].

SCBD (2013). Framework and Action Plan for Capacity-Building for the Effective Implementation of the Cartagena Protocol on Biosafety. Montreal: Secretariat of the Convention on Biological Diversity.

UNEG (2016). Norms and Standards for Evaluation. New York: United Nations Evaluation Group.

UNEP (2004). Bali Strategic Plan for Technology Support and Capacity-building. Nairobi, Kenya: United Nations Environment Programme.

UNEP (2005). Implementation of the National Biosafety Framework of Cambodia. United Nations Environment Programme. UNEP-GEF Project Document.

UNEP (2008). United Nations Environment Programme Medium-term Strategy 2010–2013. United Nations Environment Programme.

UNEP (2009a). United Nations Environment Programme Evaluation Policy.

UNEP (2009b). A Guide to the UNEP 2010-11 Draft Programme of Work. United Nations Environment Programme.

UNEP (2011). Building Capacity for the Detection and Monitoring of LMOs in Cambodia. United Nations Environment Programme. UNEP-GEF Project Document.

UNEP (2015a). UNEP Environmental, Social and Economic Sustainability Framework. Nairobi, Kenya: United Nations Environment Programme.

UNEP (2015b). United Nations Environment Programme Medium-term Strategy 2014–2017. Nairobi, Kenya: United Nations Environment Programme.

UNEP (2017a). Inception Report for the Terminal Evaluation of the Project “Implementation of the National Biosafety Framework for Ghana”. United Nations Environment Programme.

UNEP (2017b). United Nations Environment Programme Medium-term Strategy 2018–2021. Nairobi, Kenya: United Nations Environment Programme.

UNEP-GEF Biosafety Unit (2006). A Comparative Analysis of Experiences and Lessons from the UNEP-GEF Biosafety Projects. United Nations Environment Programme.

UNEP-GEF Biosafety Unit (2008a). Guidance towards Implementation of National Biosafety Frameworks: Lessons Learned from the UNEP Demonstration Projects.

UNEP-GEF Biosafety Unit (2008b). The Global UNEP-GEF BCH Capacity Building Project Learning from Experience. United Nations Environment Programme.

### Annex 3: Evaluation Program and Persons Interviewed

Activity	Date(s)
Signature of contract	12 Oct
Kickoff meeting with Pauline Marima, UN Environment, Evaluation Officer	2 Nov
Submission of Inception Report	27 Nov
Consultant arrives in Phnom Penh	6 Jan
Informal work/consultation with Dr Pisey Oum (Secretary of NSCB, Vice-Chair of SAT and former project Coordinator National project Coordinator - NPC)	7 Jan
Inception meeting and interview with NPC	8 Jan
Interview with Mr Ke Vongwatta (Chair of Emergency Response Team and former project Consultant - Public Communication Expert) and Mr. Mun Duong Ratanak (IT Specialist and Chief of BCH office)	
Interview with Dr. Chuon Monitroth, Head of Agriculture and Food Processing Lab (CamLAPF, Ministry of Agriculture) and support staff: <ul style="list-style-type: none"> <li>• Mr. Sun Sovath, (Technical Officer)</li> <li>• Mr. Hun Borin, (Technical Officer)</li> <li>• Mr. Soth Vichheka, (Technical Officer)</li> </ul>	9 Jan
Interview with Dr. Huon Thavrak, Associate Professor/Dean of Graduate Studies, Ex-Local Lab Expert, Royal University of Agriculture; and Mr. Thong Kong, Associate Professor/Dean of Faculty of Agro-Industry/ President of the Cambodia Association of Food Science and Technology, Royal University of Agriculture	
Interview with Dr. Ouk Makara, Director Cambodian Agricultural Research and Development Institute (Cambodian Agricultural Research and Development Institute)	
Interview with Mr. Suy Sothea, TVK Coordinator and Producer, Good Morning Cambodia	Jan 10
Interview with Dr. Khun Leanghak, Executive Director, General Department of Agriculture, Society for Community Development in Cambodia (SOFDEC)	
Mr. Roath Sith, Deputy-Director General, ex- Legal Expert, Ministry of Environment	
Visit to LMO lab and Interview with Mr. Oum Borath, Deputy Director of Environmental Lab in charge of Biotechnology lab	
Interview with Mr. Nuon Chanrith, Deputy Director General, General Department of Customs and Excise of Cambodia, Ministry of Economy and Finance and support staff: <ul style="list-style-type: none"> <li>• Ms. Sony Jock</li> <li>• Mr. Sovann Sireywadh (Deputy Chief of Customs Technique of Department Planning Technique and International Affairs)</li> </ul>	Jan 11
Mr. Kray Sunheang, Deputy DG, Camcontrol, MOC and his team	
Mr. Long Rlthirak, Deputy GEF Focal Point, Ministry of Environment	Jan 12
Consolidation of preliminary mission findings	Jan 13-14
Round-up meeting and debriefing with NPC	15 Jan-
Consultant returns to UK	16 Jan
Email interview with Prof Wang Chanyong, Nanjing Institute of Environmental Sciences, Ministry of Environmental Protection of The P.R. of China	30 Jan
Skype interview with Dr. Frank Narendja, Environment Agency Austria.	5 Feb
Skype interview with Mr. Alex Owuso-Biney, UN Environment Task Manager	16 Feb
Data analysis and drafting of TE Report	Feb-Mar
Submission of draft TE Report	26 Apr
Submission of second draft TE Report	22 May
Acceptance of final TE Report	6 Aug

### Annex 4: Matrix used to assess Evaluation Criteria

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
<b>A. Strategic relevance:</b> Extent to which the activity is suited to the priorities and policies of the target group, recipient and donor		
<i>i. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)</i>		Described in the assessment of project design quality (PDQ)
<i>ii. Alignment to UN Environment /GEF/Donor Strategic Priorities</i>		
<i>iii. Relevance to Regional, Sub-regional and National Environmental Priorities</i>		
<i>iv. Complementarity with Existing Interventions</i>		
<b>B. Quality of project Design</b>		
<b>C. Nature of External Context</b>		
<b>D. Effectiveness:</b> Achievement of outputs, achievement of direct outcomes and likelihood of impact		
<i>i. Achievement of outputs</i>		
<u>Outputs:</u> How successful was the project in producing the programmed outputs, both in quantity and quality, as well as their usefulness and timeliness?	Output level indicators of Results Framework (including outcome indicators that have been reformulated as output indicators in the development of the TOC)	project progress reports/PIR Tangible products (publications, studies, manuals, TORs, etc.) Interviews with program staff, partner organisations, project beneficiaries
<i>ii. Attainment of Direct Outcomes</i>		
<u>Training:</u> To what extent and how effectively did the project training-related outputs contribute to increased capacity for and enforcement of LMO detection and monitoring?	Outcome level indicators: Indicators classified under Training: 1.2 - budget for identified capacity needs made available according to national plans. 2.1 - Within the first year, the LMO detection laboratories are identified, responsibilities are assigned, and 5 staff trained to be trainers on LMO detection. 3.2 - A network of control authorities including customs, laboratories and border control is established; Sampling and analytical methods for LMO control and detection established. Indicators classified under Enforcement: 2.2 - By the end of the project, effective control system is in place and	project progress reports/PIR Tangible products (publications, studies, manuals, TORs, etc.) Interviews with program staff, partner organisations, project beneficiaries

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
	<p>border checks are performed regularly; Staff at major entry points will be trained.</p> <p>3.3 - By end of the project, an efficient monitoring and enforcement system is in place.</p>	
<p><b>Public Participation:</b> To what extent and how effectively did the public participation-related outputs contributed to active public participation in implementation of the CPB?</p>	<p>Outcome level indicators:</p> <p>Indicators classified under Public Participation:</p> <p>2.5 – Mechanisms established for public participation <b>by mid-project.</b></p> <p><b>Public participate in consultative activities as outlined in public participation mechanisms following the establishment of these mechanisms.</b></p>	<p>project progress reports/PIR</p> <p>Tangible products (publications, studies, manuals, TORs, etc.)</p> <p>Interviews with program staff, partner organisations, project beneficiaries</p>
<p><b>Infrastructure:</b> To what extent and how effectively did the infrastructure-related outputs contributed to the successful international accreditation of an LMO detection laboratory?</p>	<p>Outcome level indicators:</p> <p>Indicators classified under Infrastructure:</p> <p><b>By end project the LMO detection laboratory is internationally accredited.</b></p>	<p>project progress reports/PIR</p> <p>Tangible products (publications, studies, manuals, TORs, etc.)</p> <p>Lab visit</p> <p>Interviews with program staff, partner organisations, project beneficiaries</p>
<p><b>Information:</b> To what extent and how effectively did the information-related outputs contributed to the establishment of a scientific basis for resolving legal disputes on LMO labelling and non-compliance?</p>	<p>Outcome level indicators:</p> <p>Indicators classified under Information:</p> <p>4.1 - <b>By end project</b> an Information management system for management <b>for data on biosafety &amp; biotechnology linked to the Biosafety Clearing House (BCH), existing national databases and international information resources</b> is in place and operational; By 2010 a National Register of <b>LMO test results</b> is established; <b>LMO</b> database set up and accessible to control authorities.</p> <p>4.2 - <b>By end project</b> a decision-making system is in place and collaboration with other reference laboratories established.</p>	<p>project progress reports/PIR</p> <p>Tangible products (publications, studies, manuals, TORs, etc.)</p> <p>Interviews with program staff, partner organisations, project beneficiaries</p>
<p><b>Enforcement:</b> To what extent and how effectively did enforcement-related outputs contributed to the establishment of more effective enforcement of the Biosafety Law, decrees and sub-decrees, and better border control and field tests.</p>	<p>Outcome level indicators:</p> <p>Indicators classified under Enforcement:</p> <p>2.2 - By the end of the project, effective control system is in place and border checks are performed regularly; Staff at major entry points will be trained.</p> <p>3.3 - By end of the project, an efficient monitoring and enforcement system</p>	

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
	is in place.	
<i>iii. Likelihood of impact</i>		
<u>Assumptions:</u> To what extent did the project assumptions stated in the results framework and those in the reconstructed TOC hold?	Level of compliance with assumptions	project progress reports/PIR (project Implementation Review) Interviews with project staff, key stakeholders Analysis of Review of Outcomes to Impacts (ROtI) vs. Project results
<u>Drivers:</u> To what extent did the project drivers stated in the results framework and those in the reconstructed TOC hold?	Level of compliance with drivers	project progress reports/PIR Interviews with project staff, key stakeholders Analysis of ROtI vs. Project results
<u>Catalytic role:</u> To what extent did the project create opportunities for particular individuals or institutions (“champions”) to catalyse change without which the project would not have achieved all of its results?	Number of identified follow up initiatives by partner organizations or individuals to replicate lessons from project Degree of participation of new relevant institutional stakeholders	Interview with project staff and key stakeholders Leveraged financing
<u>Replication or scaling up:</u> Are lessons and experiences from the project being replicated or scaled up? What are the factors that may influence replication and scaling up of project experiences and lessons?	Documented examples of replication or up-scaling	Interviews with project staff, key stakeholders Reports and publications by other institutions
<b>E. Financial management</b>		
<u>Completeness:</u> How complete is the financial information provided by the project?	Level of completeness and accuracy of reports	project financial reports Interviews with project staff
<u>Communication:</u> How complete was the communication between financial and project management staff?	Perception of effectiveness of communication between financial and project management staff	project financial reports Interviews with project staff
<u>Compliance:</u> To what extent did the project comply with the relevant UN financial management standards and procedures?	Number of cases of irregularities reported	project financial reports Interviews with project staff
<b>F. Efficiency:</b> Cost-effectiveness and timeliness of project execution		

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
<u>Connectedness:</u> Did the project build adequately on existing institutions, lessons of other initiatives, data sources, partnerships with third parties and ongoing projects?	Level of inclusion of pre-existing initiatives and institutions	project document Interviews with key stakeholders (pre-existing initiatives and institutions) Evaluation of project design
<u>Timeliness:</u> To what extent did the timing of operational execution correspond with original planning timelines?	Level of compliance with project planning / annual plans	ProDoc project annual plans project progress reports/PIR Interviews with project staff
<u>Budget fidelity:</u> To what extent did the budget for operational execution correspond with original budget? Was the project implemented cost-effectively?	Level of compliance with project financial planning / annual plans	ProDoc project annual plans project financial reports Interviews with project staff
<u>Implementation delays:</u> Where applicable, what have been the main reasons for delay/changes in implementation? Have these affected project execution, costs and effectiveness?	List of reasons, validated by project staff	ProDoc project annual plans project progress reports/PIR Interviews with project staff
<u>Adaptive management:</u> Was adaptive management applied adequately? Were any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its secured budget and time?	Measures taken to improve project implementation based on project monitoring and evaluation	project progress reports/PIR project financial reports Interview with project staff and UN Environment Task Manager
<b>G. Monitoring and Reporting</b>		
<i>i. Monitoring design and budgeting:</i>		
Was the project supported by a sound monitoring plan designed to track progress against SMART indicators towards the achievement of the projects outputs and direct outcomes, including at a level disaggregated by gender or groups with low representation?	Level of completeness of monitoring plan	project M&E plan

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
<i>ii. Monitoring implementation</i>		
Was the M&E system operational and did it facilitate timely tracking of results and progress towards projects objectives throughout the project implementation period? Were the results used to improve project performance and to adapt to changing needs?	Level of implementation of M&E system (execution of activities) Changes in project implementation as result of supervision visits	project M&E plan project progress reports/PIR Interview with project staff and UN Environment Task Manager
<i>ii. Project Reporting</i>		
Were PIR reports, half-yearly Progress & Financial Reports complete and accurate?	Level of completeness and accuracy of reports	project M&E plan project progress reports/PIR Interview with project staff and UN Environment Task Manager
<b>H. Sustainability:</b> Achievement of outputs, achievement of direct outcomes and likelihood of impact		
<i>i. Socio-political Sustainability</i>		
To what extent are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts?	Key social and political factors positively or negatively impacting project results	Interviews with project staff, key stakeholders project progress reports/PIR Contextual literature
<i>ii. Financial Sustainability</i>		
To what extent are the continuation of project results and the eventual impact of the project dependent on (continued) financial support? What is the likelihood that adequate financial resources will be or will become available to continue implementation the programs, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardise sustained project results and onward progress towards impact?	Estimates of financial requirements for sustained results Estimates of future budget of key stakeholders	Documented estimations of future budget commitments Interviews with project staff and key stakeholders
<i>iii. Institutional Sustainability</i>		
How robust are the institutional arrangements required to sustain project	Level of commitment, indicated by formal agreements, recommendations, declarations, of key stakeholders on institutional frameworks including the	Analysis of existing institutional framework

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
results and to lead those to impact on human behaviour and environmental resources, goods or services?	BCH, that sustain project results	Documentation (agreements, declarations, meeting minutes) on institutional framework  Interviews with project staff and key stakeholders
<b>I. Factors and Processes Affecting project Performance</b>		
<i>i. Preparation and Readiness</i>		
Were appropriate measures taken to address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation?	Degree to which project design weaknesses and changes between project approval, the securing of funds and project mobilisation were addressed in project inception documents.  Changes in project implementation as recommendations in project inception documents.	ProDoc project inception documents project progress reports/PIR Interview with project staff and UN Environment Task Manager
<i>ii. Quality of project Management and Supervision</i>		
How adequate were project supervision plans, inputs and processes?	Level of completeness and accuracy of reports Perception of effectiveness Documented backstopping activities by UN Environment to project staff	ProDoc project progress reports/PIR Interview with project staff and UN Environment task manager
<i>iii. Stakeholder participation and cooperation</i>		
To what extent and how effectively did project management communicate and consult with stakeholders throughout the project to maximise collaboration and coherence between stakeholders including the participation of all differentiated groups.	Local stakeholders (governmental agencies, academia and research bodies, private industry, organisations of beneficiaries, etc.) perceive better capacities to sustain project results, through improved understanding and participation  Formal agreements, included recommendations, declarations, of key stakeholders relating to project results	project progress reports/PIR Interviews with key stakeholders Documentation of project activity implementation Documentation on activities of key stakeholders
<i>iv. Responsiveness to human rights and gender equity</i>		
To what extent has the project applied the UN Common Understanding on the human rights based approach (HRBA) and the UN Declaration on the Rights of Indigenous People, including adhering to UN Environment's Policy and Strategy for Gender Equality and the Environment.	Level of completeness of gender and human rights analysis Degree to which gender and human rights considerations have been incorporated into project implementation	Interviews with project staff project progress reports/PIR Stakeholder interviews

EVALUATION CRITERIA	EVALUATION INDICATORS	MEANS OF VERIFICATION
<i>v. Country ownership and driven-ness</i>		
How and how well did the project stimulate country ownership of project outputs and outcomes?	Endorsement of project by governmental agencies Provision of counterpart funding Extent of participation of national and local agencies in project activities Perception of ownership by national and local agencies	Interviews with national partners, and project staff project progress reports/PIR Documented endorsements and co-financing

## Annex 5: Completed assessment of the project Design Quality (PDQ)

1. This template is intended for use during the inception phase of an evaluation or review. It supports an assessment of the initial design of a project<sup>1</sup>. The purpose of this template is to stimulate thinking, based on a review of project design documentation, that will strengthen: a) the development of useful and insightful evaluation questions and b) the development of a robust causal pathway, assumptions and drivers in the reconstructed Theory of Change. Where substantive and significant weaknesses are apparent at the project design stage, these may either be potential areas for further questioning, may have stimulated adaptive management or may have limited the overall effectiveness of the intervention.

2. Key sources of information for completing this assessment include the approved project document (ProDoc), the project Review Committee (PRC) review sheet, the project logical framework or Theory of Change (TOC) at design stage and, where appropriate, a revised project design following a Mid-Term Evaluation/Review. (For GEF projects the GEFSEC reviews sheet and UNEP response sheet should also be reviewed).

3. Unless otherwise marked, 'Section Rating'<sup>2</sup> refers to the question: In the project design documents, how satisfactorily is the criteria addressed? Satisfactoriness refers to both the completeness and quality of the content. The section ratings should be aggregated, using the weightings described below, to determine an overall rating for the Quality of project Design. During the course of the evaluation the overall project design quality rating should be entered in the final evaluation ratings table under Item B. Quality of project Design.

A.	Nature of the External Context <sup>3</sup>	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 2 (Favourable)
1	Does the project face an unusually challenging operational environment that is likely to negatively affect project performance?	i) Ongoing/high likelihood of conflict? No		
		ii) Ongoing/high likelihood of natural disaster? No		
		iii) Ongoing/high likelihood of change in national government? No		

B.	Project Preparation	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 3 (Moderately Unsatisfactory)

B.	Project Preparation	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 3 (Moderately Unsatisfactory)	
2	Does the project document entail a clear and adequate problem analysis?	No	The problem analysis is only partial. Adequate emphasis is placed on the lack of human capacity and laboratory infrastructure for the detection and monitoring of LMOs. However, very little emphasis is placed on the need for improved access to information despite the fact that the establishment of an information system is a project component. Similarly, a lack of public understanding receives little attention in the problem analysis despite the fact that training and public understanding is a project component. Conversely, the lack of coordination among NSCB, SAT and ERT was identified as ‘the main barrier’ yet steps to address this barrier do not feature in the results framework.		
3	Does the project document entail a clear and adequate situation analysis?	Yes	The ProDoc clearly details the development of Cambodia’s biosafety policy and the status of LMO detection and monitoring in the country. However, little focus is placed on the explicit LMO risks and opportunities other than the need to protect Cambodia's 2,000 rice varieties from gene flow from GM rice in the region.		
4	Does the project document include a clear and adequate stakeholder analysis?	No	Major stakeholders and their roles in LMO detection and monitoring are described, but it is not clear how stakeholder needs and interests were derived during project design. Few details are provided on the role of non-government stakeholders in the project.		
5	<i>If yes to Q4: Does the project document provide a description of stakeholder consultation during project design process? (If yes, were any key groups overlooked: government, private sector, civil society and those who will potentially be negatively affected)</i>	N/A	N/A		
6	Does the project document identify concerns with respect to human rights, including in relation to differentiated gender needs and sustainable development?	i) Sustainable development in terms of integrated approach to human/natural systems	Yes	The ProDoc clearly identifies the importance of integrating biosafety capacity with overall national technical needs and across sectors to ensure effective conservation of biodiversity and sustainable use of biological resources, taking also into account risks to human health. Human rights considerations are not mentioned.	
		ii) Gender	No	Gender issues are not mentioned in the ProDoc	
		iii) Indigenous peoples	No	Issues relating to indigenous people are not mentioned in the ProDoc	

C.	Strategic Relevance	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 5 (Satisfactory)
7	Is the project document clear in terms of its alignment and relevance to:	i) UNEP MTS and PoW	Yes	The project goal is to assist Parties to the Cartagena Protocol on Biosafety (CPB) in building capacity to implement the CPB which is in alignment with UNEP's MTS 2010-2013, relating to two of seven cross-cutting themes and objectives: ecosystem management; and environmental governance. These two themes are subprogrammes in the 2010-2011 PoW.
		iii) UNEP/GEF/Donor strategic priorities (incl Bali Strategic Plan and South South Cooperation)	Yes	The project has a very strong focus on strengthening technology and capacity-building to implement the objectives of the Convention on Biological Diversity in line with UNEP/GEF/Donor strategic priorities and the Bali Strategic Plan. South-South collaboration is not heavily emphasised, but it is touched upon in Section 1.6 (Baseline analysis and gaps) in terms of establishing emergency response mechanisms including networking with neighbouring countries to identify and mitigate the spread of LMO products.
		ii) Regional, sub-regional and national environmental priorities?	No	The principal focus is on national environmental priorities as part of Cambodia's biodiversity policy as outlined in the national biodiversity strategy and action plan. Regional and sub-regional environmental priorities are not mentioned.
		iv) Complementarity with other interventions	No	The ProDoc states that the project provides opportunities for linkages with an Asian Development Bank project for Phyto-sanitary and Standard development for foods, a USAID funded agriculture food chain project feeds in Cambodia and GEF-funded projects but the alignment and relevance is implied rather than explicitly stated.

D.	Intended Results and Causality	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 3 (Moderately Unsatisfactory)
8	Is there a clearly presented Theory of Change?	No	A TOC was not mandated at the time of project design. However, it is possible to reconstruct a ToC from the ProDoc, albeit with some challenges and additions.	
9	Are the causal pathways from project outputs (goods and services) through outcomes (changes in stakeholder behaviour) towards impacts (long term, collective change of state) clearly and convincingly described in either the logframe or the TOC?	No	The causal pathways are incomplete with project outputs necessary but not sufficient for intended outcomes toward impact. For example, training activities alone are not sufficient for long term capacity building, public communication alone is insufficient for public participation, and all project activities alone and in combination are not sufficient for more effective enforcement of Biosafety Law, decrees and sub-decrees, better border control and field tests. A project component concerned with the enabling policy and institutional environment is missing.	

D.	Intended Results and Causality	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 3 (Moderately Unsatisfactory)
10	Are impact drivers and assumptions clearly described for each key causal pathway?	No	Important assumptions relating to training, public participation, lab infrastructure and information, and institutional and socio-political issues are clearly described. There is no assumption relating to mainstreaming. Therefore, the following assumption was added to the reformulated TOC: 'Senior government officials champion the development of a more enabling policy environment for long-term sustainability.' Impact drivers were not explicitly identified although some of the project assumptions were classified as impact drivers in the TOC. Impact drivers relating to the institutional environment were mostly absent from the results framework and the project narrative and 7 such drivers have been added in the reformulated TOC.	
11	Are the roles of key actors and stakeholders clearly described for each key causal pathway?	No	Key stakeholder roles in biosafety in Cambodia are described in the ProDoc in several sections: 1.4 Institutional, sectoral and policy context; 1.5 Stakeholder mapping and analysis; Section 4. Institutional Framework and implementation arrangements; Section 5. Stakeholder participation but project roles are not comprehensively described and there is almost no description of roles in relation to key causal pathways.	
12	Are the outcomes realistic with respect to the timeframe and scale of the intervention?	No	The outcomes as stated in the results framework, in most cases, concern the effective implementation of a national biosafety framework which is unlikely to emerge from the project's outputs which are mainly technical in nature. For most of the stated project outcomes to come to fruition it will take changes of an institutional and socio-political nature which are typically slow processes.	

E.	Logical Framework and Monitoring		YES/ NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 3 (Moderately Unsatisfactory)
13	Does the logical framework:	i) Capture the key elements of the Theory of Change/ intervention logic for the project?	Yes	Most of the elements of the TOC are captured in the intervention logic. However, these elements had to be substantially rearranged to bring out a clear if/then logic. As previously mentioned, outputs relating to the enabling policy and institutional environment is missing.	
		ii) Have 'SMART' indicators for outputs?	Yes	Outputs in most cases are accompanied by 'SMARTish' indicators though in most cases time-specificity is missing	
		ii) Have 'SMART' indicators for outcomes?	Yes	Most outcomes are accompanied by SMART indicators though many of them relate more to outputs than outcomes, e.g. 'staff at major entry points will be trained' does not tell us anything about the behavioural changes to which this training has contributed. In addition, some outcomes are accompanied by inappropriate indicators, e.g. the (non-SMART) indicator 'Mechanism for public participation' is not appropriate for the outcome 'Active public participation after increased understanding.'	

<b>E.</b>	<b>Logical Framework and Monitoring</b>	<b>YES/ NO</b>	<b>Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</b>	<b>Section Rating: 3 (Moderately Unsatisfactory)</b>
14	Is there baseline information in relation to key performance indicators?	No	Most baseline information of relevance to KPIs is mostly provided in App. 7 (Costed M&E plan) but precise numerical information is absent and instead terms such as 'very limited...' and 'lack of...' are used. It was planned to address this lack of precision through Component 1: Identification and analysis of LMO detection and monitoring needs.	
15	Has the desired level of achievement (targets) been specified for indicators of outputs and outcomes?	No	As in the case of the baseline information, App. 7 presents some relevant end of project targets some of which have been clearly specified, e.g. Outcome 1.2 - 'Identified capacity needs mainstreamed into National plans and budgets', 'Strategic plan on national management of LMOs is included into the national development plans'. However, many other targets are imprecise and fail to adequately represent the results they are tracking, e.g. the target for Outcome 2.2 - 'By 2013, More effective control of movement of LMOs across Cambodian border.', is 'National capacity is enhanced for effective border control of LMOs.'	
16	Are the milestones in the monitoring plan appropriate and sufficient to track progress and foster management towards outputs and outcomes?	No	App. 7 presents some useful elements (baseline, mid-term and final targets), but with the shortcomings mentioned above. Overall, the monitoring plan is insufficient for the systematically tracking of project progress.	
17	Have responsibilities for monitoring activities been made clear?	Yes	Task manager and Steering Committee are mostly identified as key actors for Monitoring in Section 6 of the ProDoc (Monitoring and Evaluation Plan). There is, however, only one mention of the project Manager (also known as the National project Coordinator) and project Management Team (the composition of this team is not specified) in this Section, which appears to be an oversight. The monitoring-related responsibilities of the National project Coordinator are more clearly laid out in App. 11 (Terms of Reference)	
18	Has a budget been allocated for monitoring project progress?	No	The budget column in App 7 was not completed. GEF funding allocated for explicit monitoring activities is for the annual audit (which is obligatory) and capturing lessons learnt which is a welcome non-obligatory activity.	
19	Is the workplan clear, adequate and realistic? (e.g. Adequate time between capacity building and take up etc)	No	The work plan is clearly laid out but there are some inconsistencies with the project narrative, e.g. six project components in the work plan and five elsewhere. There is a lot of overlap in time between activities planned under Component 1 (Identification and Needs Analysis) and activities that are dependent upon the results of this component.	

<b>F.</b>	<b>Governance and Supervision Arrangements</b>	<b>YES/NO</b>	<b>Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</b>	<b>Section Rating: 5</b>

20	Is the project governance and supervision model comprehensive, clear and appropriate? ( <i>Steering Committee, partner consultations etc.</i> )	Yes	The project governance and supervision model is mostly clear. However, it is not explicitly stated that the project Steering Committee (PSC) will be synonymous with the National Steering Committee on Biosafety (NSCB). App 1 (Budget) and App. 5 (Workplan and timetable) refer to the NSCB/PSC.
21	Are roles and responsibilities within UNEP clearly defined?	Yes	The roles of the UNEP Task Manager and the Evaluation and Oversight Unit (EOU) of UNEP are clearly defined.

<b>G.</b>	<b>Partnerships</b>	<b>YES/NO</b>	<b>Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</b>	<b>Section Rating: 4 (Moderately Satisfactory)</b>
22	Have the capacities of partners been adequately assessed?	Yes	There is a lot of information on stakeholder capacity in biosafety though it is mostly generalised.	
23	Are the roles and responsibilities of external partners properly specified and appropriate to their capacities?	Yes	The Stakeholder participation section (Section 5) is short but the description of the kind of involvement of each actor is clear. The effectiveness of the scientific and technological communities and NGOs in executing training and awareness raising activities respectively will depend upon assumptions relating to the effects of training on knowledge and skill levels.	

<b>H.</b>	<b>Learning, Communication and Outreach</b>	<b>YES/NO</b>	<b>Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</b>	<b>Section Rating: 4 (Moderately Satisfactory)</b>
24	Does the project have a clear and adequate knowledge management approach?	Yes	Knowledge management is a key part of the project with one component (Establish an Information System) being explicitly related to KM and all others being of relevance to KM. The project's lack of focus on knowledge enablers such as socio-political and institutional support is a weakness in the KM approach.	
25	Has the project identified appropriate methods for communication with key stakeholders during the project life? ( <i>If yes, do the plans build on an analysis of existing communication channels and networks used by key stakeholders?</i> )	Yes	The communication activities are clearly laid out but there is not much emphasis on the methods to be adopted. There was no analysis of existing communication channels and networks used by key stakeholders at the design stage. This analysis may or may not have been undertaken under Component 1 (Identification of LMO detection and monitoring needs).	

H.	Learning, Communication and Outreach	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 4 (Moderately Satisfactory)
26	Are plans in place for dissemination of results and lesson sharing at the end of the project? If yes, do they build on an analysis of existing communication channels and networks ?	No	The ProDoc states some of the dissemination channels to be used during the project but does not explicitly state that these same channels will be used at the end of the project.	

I.	Financial Planning / Budgeting	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 5
27	Are there any obvious deficiencies in the budgets / financial planning at design stage? ( <i>coherence of the budget, do figures add up etc.</i> )	No		
28	Is the resource mobilization strategy reasonable/realistic? ( <i>If it is over-ambitious it may undermine the delivery of the project outcomes or if under-ambitious may lead to repeated no cost extensions</i> )	No	The resource mobilisation strategy appears to be realistic	

J	Efficiency	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: 4 (Moderately Satisfactory)
29	Has the project been appropriately designed in relation to the duration and/or levels of secured funding?	Yes	In most instances, the project design is adequate for the duration and/or levels of secured funding. However, as mentioned above (in Section E) there are a lot of activities that are dependent on activities planned under Component 1 (Identification and Needs Analysis), but many of which are scheduled to begin before the Component 1 activities have been completed.	
30	Does the project design make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project	Yes	Section 2 of the ProDoc (Background and Situation Analysis - Baseline of the Action) clearly outlines pre-existing institutions, agreements and partnership upon which the project will build. The potential for synergies and complementarities with other initiatives such as such as Phyto-sanitary and Standard development for foods and feeds in Cambodia, which is funded by Asian Development Bank is highlighted in Section 1.7 (Linkages with other GEF and non-GEF interventions) but the	

	efficiency?		nature of such synergies has not been made explicit.
31	Does the project document refer to any value for money strategies (i.e. increasing economy, efficiency and/or cost-effectiveness)?	Yes	The project refers to the value for money strategy of developing long term collaboration on modern biotechnology between the LMO lab, university researchers and the private sector sufficient to ensure the sustainability of the LMO lab.
32	Has the project been extended beyond its original end date? (If yes, explore the reasons for delays and no-cost extensions during the evaluation)	Yes	The original project completion date was February 2014 giving it a three-year duration. The actual completion date was July 2016, 17 months beyond the original deadline.

<b>K.</b>	<b>Risk identification and Social Safeguards</b>	<b>YES/NO</b>	<b>Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</b>	<b>Section Rating: 4 (Moderately Satisfactory)</b>
33	Are risks appropriately identified in both the ToC/logic framework and the risk table? (If no, include key assumptions in reconstructed TOC)	Yes	Section 3.5 of the ProDoc (Risk analysis and risk management) clearly identified relevant risks and some proposed mitigation measures. These risks are referred to in the 'Risks and Assumptions' column of the Results framework (App. 4).	
34	Are potentially negative environmental, economic and social impacts of the project identified and is the mitigation strategy adequate? (consider unintended impacts)	Yes	Potentially negative effects of the project itself are not considered. However, the project is essentially addressing the mitigation of possible negative effects of Biotechnologies on environment and human health, so it is considered that the project in itself is addressing larger potential negative impacts. Socio-economic considerations relating to the introduction of LMOs are not discussed in the ProDoc	
35	Does the project have adequate mechanisms to reduce its negative environmental foot-print? (including in relation to project management)	Yes	The ProDoc does not explicitly outline measures to reduce its environmental footprint. However, the project formulation implicitly addresses this issue in several ways. The project will be fully integrated into the National Biodiversity Strategy and Action Plan (NBSAP) which will help to ensure sustainable use and sound environmental management of biological resources. It particularly addresses environmental sustainability through environmental risk assessments and risk management strategies, as well as monitoring and enforcement mechanisms. The planned collaboration with other laboratories in Cambodia will help to reduce unnecessary overlap and duplication integration, thus reducing the project's environmental footprint.	

L.	Sustainability / Replication and Catalytic Effects	YES/ NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating: 3 <b>(Moderately Unsatisfactory)</b>
36	Was there a credible sustainability strategy at design stage?	No	Section 3.8 (Sustainability) correctly focuses on government co-finance and cooperation with universities and the private sector. However, it does not identify key dimensions of sustainability including the political, institutional and socio-economic. Environmental sustainability is implicit as it is the major focus of the project.	
37	Does the project design include an appropriate exit strategy?	No	The ProDoc does not outline an exit strategy. As above, activities focus on how to maintain technical dimensions of biosafety after project closure, but little attention is paid to other dimensions.	
38	Does the project design present strategies to promote/support scaling up, replication and/or catalytic action?	Yes	The ProDoc does not explicitly outline strategies to promote scaling up, replication and/or catalytic action. However, the overall rationale of the project is to create a National Framework for Biosafety which should play a supporting and catalytic role in the management of LMOs in the country. A strong focus on information management should help to promote scaling up, replication and/or catalytic action. Once again, the lack of explicit attention paid to political, institutional and socio-economic issues may reduce the potential for scaling up, replication and/or catalytic action.	
39	Did the design address any/all of the following: socio-political, financial, institutional and environmental sustainability issues?	Yes	The project explicitly addresses financial issues but restricts this to co-finance and potential donor finance. Environmental sustainability is built into the overall project rationale. Institutional sustainability is flagged as an issue in Section 1.3 (Threats, root cause and barrier analysis), socio-political issues are alluded to in the results framework assumption that competing interests do not prevent full compliance with international obligations.	

M.	Identified Project Design Weaknesses/Gaps	YES/NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating: 5 <b>(Satisfactory)</b>
40	Were there any major issues not flagged by PRC/GEFSEC Review	N/A	Despite the development of the NBF, the ProDoc makes it clear that there are gaps in terms of coordination among NSCB, SAT and ERT and capacity at the institutional as well as individual levels. Yet project activities do not focus on these aspects, which was not an issue flagged by the GEFSEC Review.	
41	What were the main issues raised by PRC/GEFSEC Review that were not addressed?	N/A	The issues flagged by the GEFSEC Review were all addressed	

## Annex 6: List of Project Outputs

Date	Output	Activity
22-Jun-12	RGC (2012). The Inception Consultation Workshop on Capacity Building on Detection and Monitoring LMOs. Sun Way Hotel.	Project Inception workshop
25-Jul-12	Meeting PowerPoint presentation (in Khmer)	1st NSCB Meeting
23-Oct-12	Meeting PowerPoint presentation (in Khmer)	2nd NSCB Meeting
26-27 Feb-13	RSG (2013b). Proceedings of the Training Workshop on LMOs Detection Based on Protein Analysis. February 2013, Battambang Province.	1st Training workshop on LMO detection using protein-based analysis
30-Apr-13	RGC (2013a). Identifying the Elements for Public Awareness Raising: Living Modified Organisms (LMOs) Detection and Monitoring in Cambodia. Phnom Penh, Cambodia.	Production of document on identifying the key elements for public awareness raising: LMO detection and monitoring
20-23 May-13	RSG (2013c). Summary Report of the 1st Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. 20-23 May 2013, Kampot Province.	1st Training workshop on detection and monitoring of LMOs
Oct-13	No output submitted to TE Consultant	2nd Lab trainings for lab staff: Training workshop on detection of LMOs using PCR
21-24 Oct-13	RSG (2013d). Summary Report of the 3rd Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. October 21-24 2013, Kratie Province	3rd Training workshop on detection and monitoring of LMOs
	MOE/NSCB (2013). Law on Liability and Redress pursuant to Living Modified Organisms Application (first draft).	1st Draft Law on Liability and Redress pursuant to Living Modified Organisms Application
18-20 Dec-13	RSG (2013e). Agenda of the 4th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. October 21-24 2013, Kratie Province (in Khmer).	4th Training workshop on detection and monitoring of LMOs
11-14 Mar-14	No output submitted to TE Consultant	5th Training workshop on detection and monitoring of LMOs
26-30 Mar-14	Narendja, F. (2014a). Third Mission Report (24/03/2014 to 04/04/2014).	3rd Lab trainings for lab staff: detection of LMOs using PCR
28-Mar-14	Roundtable discussion on the management of LMOs in the context of agricultural crops	Production of awareness material
27-Apr - 02-May	Short video documentary on strengthening collaboration with relevant agencies for controlling LMO and transboundary movement	Production of awareness material
22-23 Jul-14	No output submitted to TE Consultant	Biosafety Clearing House (BCH) Workshop on the Framework of the Cartagena Protocol on Biosafety in Cambodia
03-05 Sep-14	RSG (2014). Summary Report of the 6th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. September 3-5 2014, Koh Kong Province.	6th Training workshop on detection and monitoring of LMOs
Nov-14	MOE (2014a). National Control Plan on Monitoring and Control of LMOs in Cambodia	Production of a National LMO control plan for

<b>Date</b>	<b>Output</b>	<b>Activity</b>
	(Draft document).	Cambodia
Nov-14	Narendja, F. (2014a). Third Mission Report (24/03/2014 to 04/04/2014).	4th Lab trainings for lab staff: detection of LMOs using PCR
25-27 Nov-14	No output submitted to TE Consultant	7th Training workshop on detection and monitoring of LMOs
18-Dec-14	Agenda: 3rd NSCB Meeting Meeting Report: 3rd NSCB Meeting Minister's Opening Speech: 3rd NSCB Meeting	3rd NSCB meeting
24-26 Feb-15	RSG (2015). Summary Report of the 8th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. June 16-17 2015, Preah Sihanouk Province.	8th Training workshop on detection and monitoring of LMOs
9-11 Jun-15	No output submitted to TE Consultant	Workshop of the Network of Laboratories for the Detection and Identification of Living Modified Organisms
30-Jun-15	RSG (2015b). Summary Report of the 8th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. June 16-17 2015, Preah Sihanouk Province.	8th training workshops for custom officers, CamControl officers, Agricultural inspectors, environmental officers
23-25 Dec-15	RSG (2015c). Summary Report of the 9th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. December 23-25 2015, Siem Reap Province.	9th Training workshop on detection and monitoring of LMOs
23-25 Mar-16	RSG (2016a). Summary Report of the 10th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. March 23-25 2016, Battambang Province.	10th Training workshop on detection and monitoring of LMOs
28-30 Mar-16	RSG (2016b). Summary Report of the 11th Training Workshop on Detection and Monitoring of Living Modified Organisms (LMOs) in Cambodia. March 28-30 2016, Sihanoukville Province.	11th Training workshop on detection and monitoring of LMOs

## Annex 7: Summary of co-finance information and a statement of project expenditure by activity

**Table A7.1: Co-financing Table**

Co financing (Type/Source)	UNEP own Financing (US\$1,000)		Government (US\$1,000)		Other* (US\$1,000)		Total (US\$1,000)		Total Disbursed (US\$1,000)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
- Grants									
- Loans									
- Credits									
- Equity in- vestments									
- In-kind sup- port									
- Other (*)									
-									
-									
<b>Totals</b>									

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

**Table A7.2: Project spending by activity**

Data was not provided to the evaluation

## Annex 8: Summary of Evaluation Findings and Lessons Learned-

The UN Environment/Global Environment Facility (GEF) Project: *Building Capacity for the Detection and Monitoring of LMOs in Cambodia*, executed by the Ministry of Environment (MOE), received an overall rating of Marginally Unsuccessful. Moderate success at the activity/output level was not translated into outcomes that were likely to contribute to the project's objective *to build human and infrastructure capacity for LMO detection*.

The project was Satisfactory in terms of its *Global and National Strategic Relevance*. Its goal *to assist Parties to the Cartagena Protocol on Biosafety (CPB)* is in alignment with UN Environment's Medium-Term Strategy 2010-2013, builds upon work for the development and implementation of a National Biosafety Framework, has a very strong focus on strengthening technology and capacity-building to implement the objectives of the CBD in line with UN Environment/GEF/Donor Strategic Priorities. But linkages with other interventions and regional and sub-regional priorities are unclear.

The *Quality of Project Design* was Marginally Satisfactory. The Project Document is sometimes difficult to follow with an unclear logic connecting the baseline with the intervention strategy. Technical sections are logical but information on the project's enabling environment is inadequate.

The *Nature of the External Context* was Satisfactory. The project did not face an unusually challenging operational environment. However, there was a change in the Minister of Environment after the 2013 elections and a reorganisation of MOE which contributed to implementation delays.

*Achievement of Outputs* was Marginally Satisfactory. The project planned to deliver one preliminary output and thirteen other outputs in four strategies (Training, Public Participation, Infrastructure, Information). Eight outputs were completed, five partially completed and one not completed. The main successes were in the implementation of training activities, development of protocols, and awareness-raising. Information management activities were only partially completed because no data have been uploaded and the system is no longer on line. Upgrading lab facilities was only partially completed because of a lack of LMO samples to analyse and the inadequacy of the facility.

*Impact* was Moderately Unlikely given the status of outputs, outcomes, drivers (factors expected to contribute to the realisation of impacts that are within the project's influence) and assumptions (factors expected to contribute to the realisation of impacts that are largely beyond the project's influence). Drivers relating to commitment at the level of individuals participating in the project were substantially met, while those relating to commitment at institutional and inter-institutional levels were only partly met. The major reason why some drivers were only partly met was that activities were restricted to those funded by the project. A major reason why some assumptions were only partly met was that a lack of a shared perspective on the importance/nature of biosafety, the issue of relevant activities being restricted to those funded by the project, and concern that biosafety capacity and knowledge was vested in individuals more than in institutions.

*Financial Management* was Satisfactory. There was regular, effective communication between financial and project management staff, all necessary documents were sent to UNEP, and no cases of financial irregularity were reported. An audit identified weaknesses in the internal control system and the recommendations were agreed upon and implemented by project management.

*Project Efficiency* was Marginally Unsatisfactory. The project built upon relevant previous activities. However, there is the need to coordinate the Biosafety Secretariat beyond project activities and provide the resources to support it as defined in the law. The project produced most planned outputs but did not meet its timelines. Spending was generally within what was allocated with relatively low costs for certain activities such as workshops. There is evidence for some adaptive management such as the increase in training in response to demand, but the reasons were not made explicit as part of a formalised M&E process.

*Monitoring and Reporting* was Marginally Satisfactory. There was no formal M&E plan and data were not disaggregated by gender or groups with low representation. Reporting was mainly at activity and output level and did not fully facilitate timely tracking of results and progress towards projects objectives. Results were not fully used to improve project performance and to adapt to changing needs. There was a failure to capture leveraged co-finance and all supporting information was not provided.

*Sustainability* was Marginally Unlikely. MOE has been supportive of biosafety, but it is undergoing reorganisation and it is not guaranteed that biosafety will continue to be a priority. Other stakeholders, including external funders have funded biotechnology activities in Cambodia but their commitment to the CPB is unclear. No formal estimates of financial requirements for the continuation of project results have been produced. Further outside financial support will be needed in the immediate term. Potential mechanisms for financial sustainability through LMO testing fees exist but there was no evidence that the implementation of such mechanisms is being considered.

*Overall Factors Affecting Performance* was Marginally Unsatisfactory. There were no substantive changes made between project approval, the securing of funds and project mobilisation despite weaknesses in project design. Project reports were accurate and substantially complete but there was little active supervision by the Project Steering Committee and MOE at the higher management level. Project supervision was perceived to be effective though there was further scope for adaptive management. The organisations that participated in project activities now have better capacities to sustain project results because of the project. However, collaboration with the private sector was very low. Collaboration with international stakeholders was critical to project effectiveness. Despite significant communication-related activity there was a widespread feeling that biosafety awareness was still near zero among key subsections of the general public such as consumers and farmers.

The overall conclusions drawn from this evaluation were as follows:

1. Project performance was moderately satisfactory at the activity and output level.
2. Project outputs were not sufficient for the achievement of planned outcomes.
3. The project was aided by the support from and to individuals but there were weaknesses at the institutional and inter-institutional levels.
4. Monitoring and evaluation were not sufficiently considered in project design and implementation.
5. Sustainability was not sufficiently considered in project design and implementation.

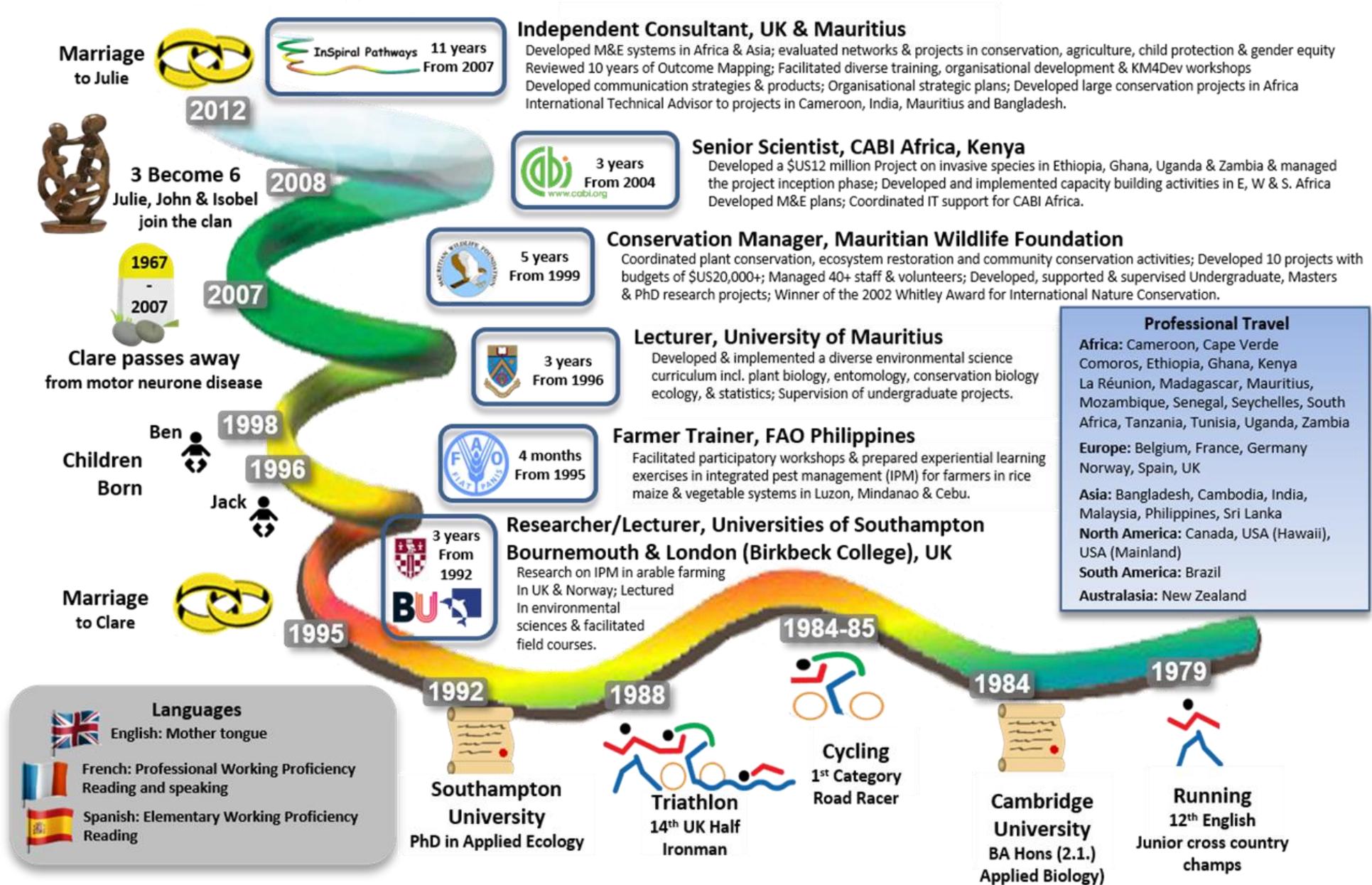
The overall lessons drawn from this evaluation were as follows:

1. It is critical to build on the knowledge and experience base of biosafety “champions” in countries with existing biosafety capacity.
2. Project planning, implementation, and monitoring and evaluation must focus on outcomes towards impacts as well as activities and outputs.
3. Consistent engagement from the Executing Agency throughout the project cycle is critical for project effectiveness.
4. Synergies between key institutions needs to be maximised at all levels of the hierarchy to stimulate long term ownership.

The overall recommendations drawn from this evaluation were as follows:

1. A future project is needed to build on the achievements of this project and to address some of its shortcomings.
2. Future projects need to optimise the comparative advantage of, and synergies among, the relevant institutions.
3. Future projects need to include a formal mid-term review.
4. Formalised results-based monitoring systems must be operational throughout future projects.
5. Future projects need to include a formal exit strategy/sustainability plan and build in cost-recovery measures.

## Annex 9 John Mauremootoo: Single page resumé



## Annex 10: Quality Assessment of the Evaluation Report

### Terminal Evaluation of the UN Environment/Global Environment Facility Project: Building Capacity for the Detection and Monitoring of LMOs in Cambodia

All UN Environment evaluations are subject to a quality assessment by the Evaluation Office. This is an assessment of the quality of the evaluation product (i.e. evaluation report) and is dependent on more than just the consultant's efforts and skills. Nevertheless, the quality assessment is used as a tool for providing structured feedback to the evaluation consultants, especially at draft report stage. This guidance is provided to support consistency in assessment across different Evaluation Managers and to make the assessment process as transparent as possible.

	UN Environment Evaluation Office Comments	Final Report Rating
<b>Substantive Report Quality Criteria</b>		
<p><b>Quality of the Executive Summary:</b> The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.</p>	The executive summary is well written and covers the main findings of the evaluation including the key lessons and recommendations	5
<p><b>I. Introduction</b> A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.) Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?</p>	Precise, well written and captures the main introductory points as recommended by the TOR	5
<p><b>II. Evaluation Methods</b> This section should include a description of how the <i>TOC at Evaluation</i><sup>18</sup> was designed (who was involved etc.) and applied to the context of the project? A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.). The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described. It should also address evaluation limitations such as: low or imbal-</p>	This section is complete, concise, and the approach and methods used have been described in sufficient detail.	6

<sup>18</sup> During the Inception Phase of the evaluation process a *TOC at Design* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions). During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.

	UN Environment Evaluation Office Comments	Final Report Rating
<p>anced response rates across different groups; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome.</p> <p>Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views.</p>		
<p><b>III. The Project</b></p> <p>This section should include:</p> <ul style="list-style-type: none"> <li>• <i>Context</i>: Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses).</li> <li>• <i>Objectives and components</i>: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised)</li> <li>• <i>Stakeholders</i>: Description of groups of targeted stakeholders organised according to relevant common characteristics</li> <li>• <i>Project implementation structure and partners</i>: A description of the implementation structure with diagram and a list of key project partners</li> <li>• <i>Changes in design during implementation</i>: Any key events that affected the project's scope or parameters should be described in brief in chronological order</li> <li>• <i>Project financing</i>: Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing</li> </ul>	<p>This section is also complete and covers all the required sub-topics in a concise and clear manner.</p>	6
<p><b>IV. Theory of Change</b></p> <p>A summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc log-frame/TOC and b) as formulated in the TOC at Evaluation. <i>The two results hierarchies should be presented as a two column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.</i> The TOC at Evaluation should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.</p>	<p>The TOC diagram is coherent and is a result of a consultative process. The narrative is clear and provides a suitable explanation of the causal pathways depicted in the diagrammatic representation. Drivers and Assumptions, as well as stakeholders/change agents in the pathways are described.</p>	6
<p><b>V. Key Findings</b></p> <p><b>A. Strategic relevance:</b></p> <p>This section should include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:</p> <ol style="list-style-type: none"> <li>1. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)</li> <li>2. Alignment to UN Environment/GEF/Donor Strategic Priorities</li> <li>3. Relevance to Regional, Sub-regional and National Environmental Priorities</li> <li>4. Complementarity with Existing Interventions</li> </ol>	<p>Section is well done and covers the main aspects of relevance prescribed in the TOR</p>	5

	UN Environment Evaluation Office Comments	Final Report Rating
<p><b>B. Quality of Project Design</b> To what extent are the strength and weaknesses of the project design effectively <u>summarized</u>?</p>	The strengths and weaknesses of the design are highlighted. The PDQ assessment that was completed at the inception phase has been referred to support the assessment.	5
<p><b>C. Nature of the External Context</b> For projects where this is appropriate, key external features of the project's implementing context that may have been reasonably expected to limit the project's performance (e.g. conflict, natural disaster, political upheaval) should be described.</p>	The TE sufficiently describes the external context in as far as it affects project implementation	6
<p><b>D. Effectiveness</b> <b>(i) Outputs and Direct Outcomes:</b> How well does the report present a well-reasoned, complete and evidence-based assessment of the achievement of a) outputs, and b) direct outcomes? How convincing is the discussion of attribution and contribution, as well as the limitations to attributing effects to the intervention.</p>	Outputs are described in detail, both quantitatively and qualitatively, and with sufficient evidence provided to support the assessment of their delivery. The chapter also presents a quantitative and qualitative analysis of the achievement of Outcomes achieved in the light of the reconstructed Theory of Change (TOC), and also supported by evidence	6
<p><b>(ii) Likelihood of Impact:</b> How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact? How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed?</p>	The assessment for this criterion is covered satisfactorily and addresses the factors that have affected the progression of outcomes to impact in a detailed manner	6
<p><b>E. Financial Management</b> This section should contain an integrated analysis of all dimensions evaluated under financial management. And include a completed 'financial management' table. Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> <li>• <i>completeness</i> of financial information, including the actual project costs (total and per activity) and actual co-financing used</li> <li>• <i>communication</i> between financial and project management staff and</li> <li>• <i>compliance</i> with relevant UN financial management standards and procedures.</li> </ul>	<p>The section has not been covered as per guidance, but this is due to lack of data provision by the Task manager / Project Team.</p> <p><i>(if this section is rated poorly as a result of limited financial information from the project, this is not a reflection on the consultant per se, but will affect the quality of the evaluation report)</i></p>	2
<p><b>F. Efficiency</b> To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including:</p> <ul style="list-style-type: none"> <li>• Implications of delays and no cost extensions</li> <li>• Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe</li> <li>• Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives,</li> </ul>	Section has been covered as per guidelines. Summary of findings have been presented adequately and some examples provided to support the assessment	5

	UN Environment Evaluation Office Comments	Final Report Rating
<ul style="list-style-type: none"> <li>programmes and projects etc.</li> <li>The extent to which the management of the project minimised UN Environment's environmental footprint.</li> </ul>		
<b>G. Monitoring and Reporting</b> How well does the report assess: <ul style="list-style-type: none"> <li>Monitoring design and budgeting (including SMART indicators, resources for MTE/R etc.)</li> <li>Monitoring implementation (including use of monitoring data for adaptive management)</li> <li>Project reporting (e.g. PIMS and donor report)</li> </ul>	Summary of findings have been presented adequately. The required content is present and is supported with some examples to substantiate the findings. Some improvements noted in the final report version	5
<b>H. Sustainability</b> How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes including: <ul style="list-style-type: none"> <li>Socio-political Sustainability</li> <li>Financial Sustainability</li> <li>Institutional Sustainability (<i>including issues of partnerships</i>)</li> </ul>	One gets a good idea of the status of all the dimensions of sustainability from a concise yet informative assessment	5
<b>I. Factors Affecting Performance</b> These factors are <u>not</u> discussed in stand-alone sections but are <b>integrated in criteria A-H as appropriate</b> . To what extent, and how well, does the evaluation report cover the following cross-cutting themes: <ul style="list-style-type: none"> <li>Preparation and readiness</li> <li>Quality of project management and supervision<sup>19</sup></li> <li>Stakeholder participation and co-operation</li> <li>Responsiveness to human rights and gender equity</li> <li>Country ownership and driven-ness</li> <li>Communication and public awareness</li> </ul>	The required sub-criteria are all covered in a sufficient level of detail that is consistent with the findings presented in other sections of the report.	5
<b>VI. Conclusions and Recommendations</b>  <b>i. Quality of the conclusions:</b> The key strategic questions should be clearly and succinctly addressed within the conclusions section? It is expected that the conclusions will highlight the main strengths and weaknesses of the project, and connect them in a compelling story line. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.	The conclusions section is well developed and presents the most critical findings of the evaluation – both strengths and weaknesses are discussed. Responses to the key strategic questions are concisely developed.	6
<b>ii) Quality and utility of the lessons:</b> Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.	The lessons are relevant and based on findings. The context is summarized. Some amendments were needed to phrase the lessons in a way that they can have wider application and that are more instructive. Improvement in the formulation of lessons learned	5

<sup>19</sup> In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.

	UN Environment Evaluation Office Comments	Final Report Rating
	statements is noted in the final report version	
<p><b>iii) Quality and utility of the recommendations:</b> To what extent are the recommendations proposals for specific actions to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results. They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when. Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.</p>	<p>Draft report: The recommendations are relevant. The consultant was requested to specify who should implement the recommendation to make them more actionable. Improvement in the formulation of recommendations is noted in the final report version</p>	5.5
<b>VII. Report Structure and Presentation Quality</b>		
<p><b>i) Structure and completeness of the report:</b> To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?</p>	<p>Draft report: To some degree the report does follow the structure, but some sections needed to be improved for completeness (e.g. where tables have been used to present summarized findings without including a detailed assessment in narrative). Improvements noted in the final report structure. The requirements of the TOR have been adequately observed</p>	6
<p><b>ii) Quality of writing and formatting:</b> Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?</p>	<p>Draft report: The report is written in clear English language that is easy to comprehend. Formatting is also okay. Minor amendments were required. Improvements noted in the final report format. The requirements of the TOR have been adequately observed</p>	6
<b>OVERALL REPORT QUALITY RATING</b>		<b>S</b>

A 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. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.