

APPENDIX 4: PROCUREMENT PLAN TEMPLATE

UNEP/GEF Project Procurement Plan

Project title: Strengthening and expansion of capacities in biosafety that lead to a full implementation of the Cartagena Protocol on Biosafety in Guatemala

Number:

UNEP Budget Line		List of Goods and Services required	Budget	Year	Brief description of anticipated procurement process
1101	ProjectManager	Administrative responsibilities	21,600	1 to 4	Administrative coordinator to be hired through TDRs publication and review of the CV of proposals by OTECBIO.
		Total cost of the project manager	21,600	1 to 4	
1200	Consultants	Component 1: Technical Leader facilitator + production of outputs (to de done by the NPC)	24,050	0.5 to 1.5	NPC TORs include full description of his the outputs that will be delivered
		Component 2: Technical Leader Facilitator. + production of outputs(to de done by the NPC)	24,050	1.50-2.50	
		Component 3: Technical Leader Facilitator + production of outputs(to de done by the NPC)	25,250	1.0-2.0	
		Component 4: Technical Leader Facilitator(to de done by the NPC)	5,000	2.0-3.0	
		Component 5: Technical Leader Facilitator. + production of outputs	44,050	2.50-4.00	
		Two international experts in GMO detection and lab implementation to be in charge of activities related of component one	30,000	1.00-3.00	TDRs publication and Review CV of proposals
		One national expert in biosafety and biodiversity for activities to be developed in component 1 regarding training program, monitoring system, and custom system implementation	27,451	0.5-2.00	TDRs publication and Review CV of proposals
		One international expert in informatics systems for designing e implementing the digital system as part of component two	20,000	2.00-3.00	TDRs publication and Review CV of proposals
		One national expert in biosafety and biodiversity for drafting technical and administrative guidelines regarding GMO special request s (fish, insects, forest)	17,452	1.5-2.5	TDRs publication and Review CV of proposals
		One national expert in biosafety and biodiversity for implementing the training program according to component three	15,452	1.0-3.00	TDRs publication and Review CV of proposals
		One national expert in communication to draft the national educational strategy in biosafety and	15,000	2.00-3.00	TDRs publication and

		biotechnology			Review CV of proposals
		One international expert in NKLP to orient the discussion and future implementation of the Protocol as indicated in component 4	10,000	1.00-2.00	TDRs publication and Review CV of proposals
		One national expert in legislation to draft and follow up of the ratification of the NKLP	12,000	1.00-2.00	TDRs publication and Review CV of proposals
		One national expert in biosafety and economy to be responsible of the tasks regarding socio-economic considerations	13,452	2.00-3.00	TDRs publication and Review CV of proposals
		One international consultant expert in genetic resources and biosafety to develop activities in component 5, special focus on definition of center of origin and diversity of cultivated corn	17,000	2.00-3.00	TDRs publication and Review CV of proposals
		One national expert in biotechnology and genetic resources to support the study of the genetic diversity of cultivated corn	32,000	1.00-3.00	TDRs publication and Review CV of proposals
		One national expert in biotechnology and genetic resources to support the study of genetic diversity of wild corn and support the drafting of the proposed in situ conservation area	27,452	1.5-3.5	TDRs publication and Review CV of proposals
		Total Consultants	359,659		
4101	Office supplies and consumables	Various items for admin operation of the project.	12,000	1	Selection of goods providers by marker rates of the equipment and request of purchase order to the administrator
4102	Laboratory supplies and consumables	Reagents for lab operations.	210,000		
4201	Equipment for project office	Purchase one xerox machine, three computers, two printers, one scanner, one projector, and a professional camera for use of all components	25,000	1	
4202	Lab equipment	PCR machines, molecular biology and immunology equipment estimated at USD 75,525 for each of two partners Real-time Thermal cyclers (RT-PCR) Research pipets Spectrophotometers Microcentrifuges Homogenizators	175,000	1	Selection of goods providers by marker rates of the equipment and request of purchase order to the administrator
5100		Total Equipment	422,000		
5375		MOU with a Third Party for the management of GEF funds of the	102,933	1 to 4	Review, approval and sign of the MOU by the two

		project. Third party will issue contracts, advertise vacancies , process payments and contribute with the generation of expenditure repots and audits.			parties involved in it
GRAND TOTAL			906,192		

Appendix 5: TORs for project personnel

National Project Coordinator

This is a full time position.

The NPC will be based at CONAP offices, under the supervision of OTECBIO Director.

Profile:

Person should have a degree in areas such as: agronomy, biology, biotechnology, forestry, or related areas; with advance knowledge of biosafety related matters and the Cartagena Protocol in Biosafety.

At least 4 years technical experience in biosafety and 4 years experience in project management.

The responsibilities of the NPC will be of technical and administrative nature. The following table describes the main duties and the outputs expected.

Main Duty	Output	Timing
Administrative duties (15 % of the time)		
Prepare a specific work plan and time table that includes the methodology to achieve the expected results (outcomes) and products (outputs) of the current Project, under the supervision of OTECBIO. This work plan must be based on the project work plan and time table and will be revised annually. This work plan will indicate technical aspects to consider when undertaking the activities, selecting candidates for positions, amongst others.	Detailed work plan and time table	Activities will be realized during the 4 years of project management and in accordance with the provisions of the project work plan.
Maintain close communication and coordination directly with OTECBIO project coordination as well as all subcontracted consultants. Provide technical advice and supervision to consultants and project's activities.	Work plan executed according to timeframes and requested details	Idem
Establish, coordinate and maintain effective communication with different sectors, stakeholders and National Competent authorities (Governmental entities, non- governmental entities, academic sectors, private sector, and civil society) to facilitate the achievement of project objectives and outcomes and create synergy among sectors.	Work plan executed according to timeframes and requested details	Idem
Exploring and promoting synergies with other relevant existing biosafety initiatives	MoU's, Letters of Intend, Strategic Alliances / Partnerships	Idem
Drafting TOR's and interviewing local /regional consultants according to the project procurement plan.	Consultancy contracts, services and acquisitions.	Idem
Coordination for the execution of all work plan activities to ensure timely and smart implementation of the project components according to the project M&E.	Activities efficiently executed according to the project M&E plan	Idem
To coordinate and lead high level meetings with politicians and decision-makers to seek their support to the project and to promote project outputs.	Meetings held and minutes developed.	Idem
Organizing Steering Committee (SC) meetings and acting as SC's secretary	SC's meetings, <i>aide-mémoire</i> .	Idem

Main Duty	Output	Timing
Present technical and financial progress reports at different stages of the Project (according to UNEP and GEF formats), based on the products specified and on the expected dates. All reports are subject to revision and are not considered final until any comments and observations are incorporated and reports approved by OTECBIO. Reports include, but not are limited to these outputs. All financial and administrative processes, plans and reports must be coordinated with OTECBIO in line with the Project document and the respective agreements signed with UNEP	Procurement plan; Inception Workshop Report; Quarterly expenditure report accompanied by explanatory notes; Quarterly cash advance request and details of anticipated disbursements; Half yearly progress report; Yearly audited report for expenditures; Yearly inventory of non- expendable equipment; Yearly co-financing report; Yearly project implementation review (PIR) report; Quarterly minutes of steering committee meetings; Final report; Final inventory of non- expendable equipment; Equipment transfer letters; Final expenditure statement; Mid-term review or Mid-term evaluation; Final audited report for expenditures of project; Independent terminal evaluation.	Idem
Technical tasks (85 % of the time)		
Provide technical advice and supervision to consultants and project's activities. The NPC will revise all technical products produced by consultants to ensure alignment with project objectives and quality standards.	Finalized and approved technical products	Idem
The NPC will be key as a technical facilitator of the process and to promote the acceptance of project technical outputs by NCAs and other partners.	Finalized and approved technical products	
Technical expertise of the NPC will be mandatory to promote synergies of this project with other initiatives as well as to successfully identify key information or materials that have been generated by other initiatives and that could be beneficial for this project.	MoUs, Letters of Intent, Strategic Alliances / Partnerships	Idem
Technical leader facilitator of the project components. He/she will be in charge of specific technical products based in his/her professional experience.	Technical lead of project activities for all components and finalized and approved technical products (1.1.1, 1.2.1, 2.1.1, and partial products of 2.1.2, 3.1.1, 3.1.3, 3.2.1, 3.2.2, 5.1.1, 5.1.2, and 5.2.1)	Idem

Annex N: Acronyms

Biosafety Clearing House	BCH
Bacillus thuringiensis	Bt
Convention on Biological Diversity	CBD
National Council for Protected Areas	CONAP
National Council for Science and Technology	CONCYT
Cartagena Protocol on Biosafety	CPB
The Tropical Agricultural Research and Higher Education Center	CATIE
Deoxyribonucleic acid	DNA
Executing Agency	EA
Evaluation Officer	EO
Evaluation and Oversight Unit	EOU
San Carlos University Faculty of Agronomy	FAUSAC
Genetically Modified	GM
Genetically Modified Organism	GMO
Implementing Agency	IA
Institute for Agricultural Science and Technology	ICTA
Implementation	IMP
Living Modified Organism	LMO
Ministry of Agriculture	MAGA
Ministry of Environment	MARN
Multilateral Environmental Agreements	MEAs
Ministry of Economy	MINECO
Medium Sized Project	MSP
Memorandum of Understanding	MoU
Ministry of Health	MSPAS
Mid Term Evaluation	MTE
Mid Term Review	MTR
Nagoya- Kuala Lumpur Protocol	NKLP
National Biosafety Framework	NBF
National Biodiversity Strategy and Action Plan	NBSAP
National Competent Authority	NCA
National Coordination Commission on Biosafety	NCC
National Custom System	NCS
National project coordinator	NPC
Technical Office for Biodiversity	OTECBIO
Project Assistant	PA
Polymerase Chain Reaction	PCR
National Secretariat of Science and Technology	SENACYT

National Protected Areas System	SIGAP
Steering Committee	SC
Standard Operation Procedure	SOP
Terminal Evaluation	TE
Mariano Galvez University	UMG
United Nations Environment Programme	UNEP
United nations Development Assistance Framework	UNDAF
UNEP's Regional Office for Latin America and the Caribbean	UNEP-ROLAC
Del Valle University of Guatemala	UVG

Checklist for Environmental and Social issues

Please note that as part of the GEFs evolving Fiduciary Standards that Implementing Agencies have to meet is the need to address 'Environmental and Social Safeguards'.

To address this requirement UNEP-GEF have developed this checklist with the following guidance:

1. Initially filled in during concept development to help guide in the identification of possible risks and activities that will need to be included in the project design.
2. A completed checklist should accompany the PIF
3. Check list reviewed during PPG phase and updated as required
4. Final check list submitted with Project Package clearly showing what activities are being undertaken to address issues identified

Project Title:	Strengthening and expansion of capacities in biosafety that lead to a full implementation of the Cartagena Protocol on Biosafety in Guatemala		
GEF project ID and UNEP ID/IMIS Number	UNEP ADDIS: 1394	Version of checklist	CEO-endorsement
Project status (preparation, implementation, MTE/MTR, TE)	CEO-endorsement request	Date of this version:	14-Dec-2015
Checklist prepared by (Name, Title, and Institution)	Marianela Araya, Task Manager UNEP BD Unit		

In completing the checklist both short- and long-term impact shall be considered.

Section A: Project location

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	Yes/No/N.A.	Comment/explanation
- Is the project area in or close to -		
- densely populated area	N/A	Project mainly in capacity building issues.
- cultural heritage site	N/A	
- protected area	N/A	
- wetland	N/A	
- mangrove	N/A	
- estuarine	N/A	
- buffer zone of protected area	N/A	
- special area for protection of biodiversity	N/A	
- Will project require temporary or permanent support facilities?	No	
<i>If the project is anticipated to impact any of the above areas an Environmental Survey will be needed to determine if the project is in conflict with the protection of the area or if it will cause significant disturbance to the area.</i>		

Section B: Environmental impacts

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	Yes/No/N.A.	Comment/explanation
- Are ecosystems related to project fragile or degraded?	N/A	Project activities are mainly capacity building
- Will project cause any loss of precious ecology, ecological, and economic functions due to construction of infrastructure?	N/A	
- Will project cause impairment of ecological opportunities?	N/A	
- Will project cause increase in peak and flood flows? (including from temporary or permanent waste waters)	N/A	
- Will project cause air, soil or water pollution?	N/A	
- Will project cause soil erosion and siltation?	N/A	
- Will project cause increased waste production?	N/A	
- Will project cause Hazardous Waste production?	N/A	
- Will project cause threat to local ecosystems due to invasive species?	N/A	To the contrary, the project will contribute to the preservation of native genetic resources and biodiversity through functional biosafety systems.
- Will project cause Greenhouse Gas Emissions?	N/A	
- Other environmental issues, e.g. noise and traffic	N/A	
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section C: Social impacts

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	Yes/No/N.A.	Comment/explanation
- Does the project respect internationally proclaimed human rights including dignity, cultural property and uniqueness and rights of indigenous people?	Yes	The projects has a full component that is meant to safeguard maize as a key genetic resource for local populations and indigenous people.
- Are property rights on resources such as land tenure recognized by the existing laws in affected countries?	N/A	
- Will the project cause social problems and conflicts related to land tenure and access to resources?	N/A	
- Does the project incorporate measures to allow affected stakeholders' information and consultation?	Yes	The project has been developed in a participatory manner taking advantage of former consultation structures and groups that were created during the former project. In addition, the current proposal includes the development of studies and analysis of implications for certain processes, which will be based on local consultations.
- Will the project affect the state of the targeted country's (-ies') institutional context?	Yes	The project will enhance and strengthen institutional capacities at the community and national level.
- Will the project cause change to beneficial uses of land or resources? (incl. loss of downstream beneficial uses (water supply or fisheries)?	No	The project will promote under component 5 the creation of an in situ conservation site. Proposal will be designed in consultation with local authorities and will be mindful of land use permits, in particular since the EA is the local authority for protected areas.
- Will the project cause technology or land use modification that may change present social and economic activities?	No	The project does not promote the use of any particular technology; it only creates regulatory capacity for the country to take informed decisions. Therefore no, the project itself will not cause modifications to social or economic activities. It will however raise awareness and create technical

	Yes/No/N.A.	Comment/explanation
		capacity that over time could contribute to the execution of particular activities. Through the maize reserve the project will only designate that area as GM free zone and therefore since GM maize is not yet approved in Guatemala, it will not change any present economic activities.
- Will the project cause dislocation or involuntary resettlement of people?	No	
- Will the project cause uncontrolled in-migration (short- and long-term) with opening of roads to areas and possible overloading of social infrastructure?	No	
- Will the project cause increased local or regional unemployment?	No	
- Does the project include measures to avoid forced or child labour?	N/A	
- Does the project include measures to ensure a safe and healthy working environment for workers employed as part of the project?	N/A	
- Will the project cause impairment of recreational opportunities?	No	
- Will the project cause impairment of indigenous people's livelihoods or belief systems?	No	
- Will the project cause disproportionate impact to women or other disadvantaged or vulnerable groups?	No	
- Will the project involve and or be complicit in the alteration, damage or removal of any critical cultural heritage?	No	
- Does the project include measures to avoid corruption?	Yes	UNEP fiduciary standards will be followed as a requirement of UNEP as a GEF IA.
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section D: Other considerations

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	Yes/No/N.A.	Comment/explanation
- Does national regulation in affected country (-ies) require EIA and/or ESIA for this type of activity?	N/A	
- Is there national capacity to ensure a sound implementation of EIA and/or SIA requirements present in affected country (-ies)?	N/A	
- Is the project addressing issues, which are already addressed by other alternative approaches and projects?	No	The scope of the project is different from the one other initiative. However, the project will look for synergies and avoid duplication.

Annex I: Key Deliverables and Benchmarks

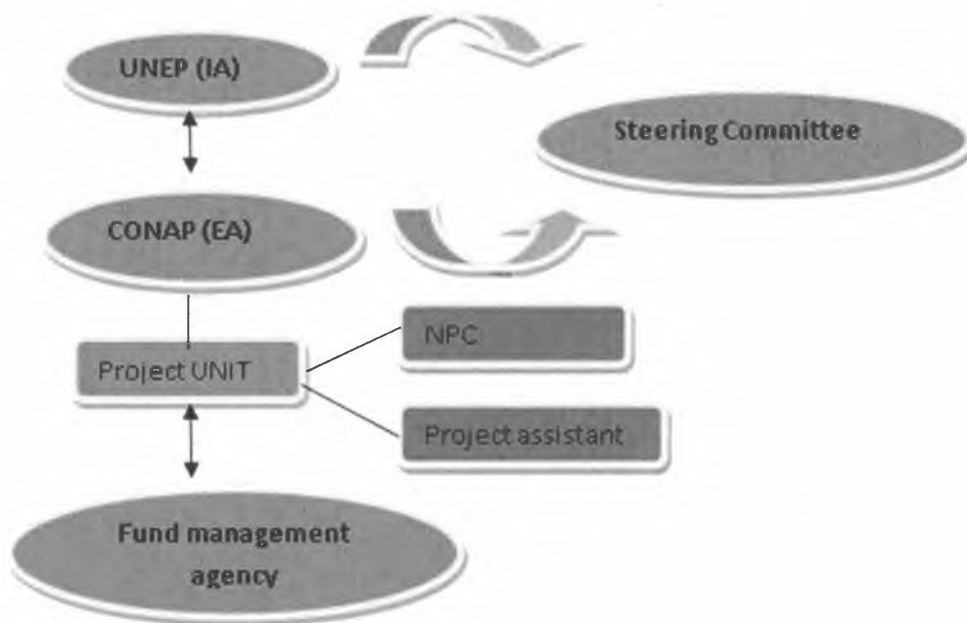
Benchmarks	Deliverables
Component 1: Strengthening of institutional capacity for GMO surveillance, and monitoring and GMO detection	
-Diagnosis of the installed laboratory capacity	-Identification and evaluation of two national labs
-Two national laboratories selected and strengthened	-Equipment purchased -Commitment letters from the National institutions in charge of the selected laboratories
-Laboratory personnel trained	-Laboratory personnel trained in GMO detection (manuals, protocols, hands-on training)
- Inter-Laboratory cooperation MoUs developed	-Cooperation agreements signed
- Operative guidelines and clear roles and responsibilities for a monitoring and surveillance system	-NCA roles and responsibilities defined as groundwork for a National Biosafety Monitoring System -Technical guidelines on surveillance and monitoring procedures developed
Component 2: Strengthening of administrative and technical biosafety system of the National Competent Authorities (NCAs), in line with article 2.1 of the CPB	
-Sectorial regulations tested and submitted for approval.	-Sectorial regulations approved
-Digital system for managing GMO applications in place	-Design of the digital system -Digital system operational
-Hands on training for the NCA's personnel (2 mock exercises on how to process dossiers using the new digital system)	-Mock exercise of the administrative system
Component 3: Strengthening the science-policy link through public awareness and education tools	
-Informative materials for decision-makers sensitization developed.	-PPTs, booklets, brochure and biosafety business cases prepared
- Politicians and decision makers sensitized on the country's biosafety capacities.	-High-level meetings with politicians
-Draft of a national educational strategy in biosafety and biotechnology.	-Coordination mechanism for the development of the strategy established and agreed with Ministry of Education - National Educational Strategy in Biosafety and Biotechnology drafted
-Teaching materials generated for primary and secondary school students and teachers.	-Booklets and education guidelines developed.
Component 4: Developing capacities on liability and redress (Article 27) and socioeconomics considerations (Article 26).	
-Analysis of the juridical and technical implications of ratification of the supplementary protocol.	-Information on successful experiences on liability and redress from other countries - Discussion of the Nagoya-Kuala Lumpur Protocol with linked sectors
-Proposal on how to include and manage L&R issues in the current biosafety administrative system.	-Revision of the administrative system to include L&R issues - Draft document for ratification
-Study of the existing national and regional laws and regulations approaches related onto the use of socioeconomic consideration in decision making.	- Information on successful experiences on SE considerations from Guatemala and other countries -Analysis of the implications of implementation of article 26

Component 5: Conservation of native biodiversity in support of biosafety related activities.

-Maize baseline data is strengthened	- Morphological and genetic characterization of wild maize and related landraces
-Normative defining GMO free zones (Maize)	-Agreement with other institutions to improve <i>in situ</i> conservation of maize wild relatives - Identification of areas of high genetic diversity to define areas where GM maize cannot be cultivated -Workshops to develop a model of <i>in situ</i> conservation of wild maize
-Maize genetic reserve is established	-Agreements with local authorities and other local institutions related with wild maize conservation -Establishment of the genetic reserve

Annex H: Decision-making flowchart and organizational chart

The project entities will interact as follows (see section 9 in the MSP Prodoc for more details)



Annex G: Costed M&E plan

M&E activity	Responsible Parties	Approx. Budget from GEF (US\$)	Budget co-finance	Time Frame
Inception Workshop	<ul style="list-style-type: none"> • Project Management Unit (PMU) • UNEP 	10,000	8,000	Within 2 months of project start-up
Inception Report (translation cost)	<ul style="list-style-type: none"> • PMU 	1,000	500	1 month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) including baseline data collection	<ul style="list-style-type: none"> • Project Coordinator • PMU/ Project team • Consultants 	8,000	15,000	<ul style="list-style-type: none"> • Outcome indicators: Start, mid and end of project • Progress/performance indicators: Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July (through progress reports) • Baseline data collection: within the 1st year
Project Steering Committee (SC) meetings	<ul style="list-style-type: none"> • Project Coordinator • PMU • UNEP 	24,000	3,000	Twice a year Minimum
Reports of SC meetings	<ul style="list-style-type: none"> • Project • Coordinator with inputs from partners 	2,000	3,000	
PIR (translation cost)	<ul style="list-style-type: none"> • Project Coordinator • PMU • UNEP 	3,000	2,000	Annually
Monitoring visits to field sites and areas where project is active	<ul style="list-style-type: none"> • Project Coordinator • PMU • UNEP 	7,000	5,000	
Mid Term Review	<ul style="list-style-type: none"> • UNEP TM/ UNEP • Evaluation Office • PMU 	10,000	8,000	At mid-point of project
Terminal Evaluation	<ul style="list-style-type: none"> • UNEP TM/ UNEP • Evaluation Office • PMU 	25,000	10,000	At project end
Financial audits	<ul style="list-style-type: none"> • CONAP/CATIE 	10,000	2,000	Every year
Total M&E Plan Budget		100,000	54,500	

ANNEX E: CONSULTANTS TO BE HIRED & DRAFT TERMS OF REFERENCE

<i>Position Titles</i>	<i>\$/ person week*</i>	<i>Estimated person weeks**</i>	<i>Tasks to be performed</i>
Consultant Component 1: Technical Leader facilitator + production of outputs (to be done by the NPC)	24,050 per consultancy	Type of contract lump sum	NPC TORs include full description of his the outputs that will be delivered
Component 2: Technical Leader Facilitator. + production of outputs(to be done by the NPC)	24,050		idem
Component 3: Technical Leader Facilitator + production of outputs(to be done by the NPC)	25,250		idem
Component 4: Technical Leader Facilitator(to be done by the NPC)	5,000		idem
Component 5: Technical Leader Facilitator. + production of outputs	44,050		dem
Two international experts in GMO detection and lab implementation to be in charge of activities related of component one	30,000		to be in charge of activities related of component one
One national expert in biosafety and biodiversity	27,451		for activities to be developed in component 1 regarding training program, monitoring system, and custom system implementation
One international expert in informatics systems	20,000		for designing e implementing the digital system as part of component two
One national expert in biosafety and biodiversity	17,452		for drafting technical and administrative guidelines regarding GMO special requests (fish, insects, forest)
One national expert in biosafety and biodiversity	15,452		for implementing the training program according to component three
One national expert in communication	15,000		to draft the national educational strategy in biosafety and biotechnology
One international expert in NKLP	10,000		to orient the discussion and future implementation of the Protocol as indicated in component 4
One national expert in legislation	12,000		to draft and follow up of the ratification of the NKLP
One national expert in biosafety and economy	13,452		to be responsible of the tasks regarding socio-economic considerations
One international consultant expert in genetic resources and biosafety	17,000		to develop activities in component 5, special focus on definition of center of origin

			and diversity of cultivated corn
One national expert in biotechnology and genetic resources	32,000		to support the study of the genetic diversity of cultivated corn
One national expert in biotechnology and genetic resources	27,452		to support the study of genetic diversity of wild corn and support the drafting of the proposed in situ conservation area

Annex A: Results / Logical Framework

Project objective	To complete the process of implementation of the Cartagena Protocol through an innovative approach that promotes a strong link between biosafety and biodiversity
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Component 1: Strengthening of institutional capacity for GMO surveillance, monitoring and detection.

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 1.1: National laboratories strengthened to provide GMO detection support and related post approval monitoring activities.	# of Nat labs certified for GMO detection	- 0 labs that are certified for GMO	2 (labs equipped)	Selected laboratories have started the process of certification; with all the necessary documentation submitted to the certification accredit bodies.	<ul style="list-style-type: none"> Financial reports, terminal Terminal report, Documents uploaded in the Anubis system (UNEP's tool). MTE and TE reports 	<p>Authorities responsible for the operation of laboratories recognize the importance and support the process through assignment of staff, as well as facilities and equipment</p> <p>The certification process is completed within the project timeframe.</p>
	# of workshops for technicians # of detection test undertaken	Lack of training, there are few technicians who have experience in GMO detection -0 detection tests	Training programme developed -2 detection tests undertaken	5 labs with personnel trained in GMO detection 4-detection tests undertaken	<ul style="list-style-type: none"> List of trained personnel Training certification diplomas Terminal report, Documents uploaded in the Anubis system (UNEP's tool). MTE and TE reports 	<p>Selected laboratories support the training process of technical staff.</p>

Outputs for Outcome 1.1:

- 1.1.1 Diagnosis of the installed capacity and of trained human resources in detection of GMOs
- 1.1.2, 2 laboratories equipped.
- 1.1.3 Harmonized Toolkits/Guidelines/Protocols/Standard Operating Procedures (SOPs) on GMO detection developed and/or adapted to suit Guatemala's reality.
- 1.1.4 Training programme on GMO detection established (e.g. workshops and manuals).

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		

Outcome 1.2: Agreements for collaborative networking established between national and international labs	# of signed agreements	0 signed agreements	1 collaboration agreement signed	2 collaboration agreement signed	<ul style="list-style-type: none"> • MoU drafts. • Communication between labs and the project. • Signed collaboration agreements. 	There is interest from selected institutions related to detection of GMOs in undertaking this task and establishing cooperation agreements
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Outputs for Outcome 1.2:

1.2.1 Inter-Laboratory cooperation MoUs developed and signed (to facilitate interaction and promote a cost-benefit approach between national and regional laboratories).

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 1.3: Country able to implement biosafety monitoring and surveillance measures	# of monitoring plans for GMOs approved	Baseline: 0	1 GMO monitoring plan approved		<ul style="list-style-type: none"> • Stakeholder technical profiles and list of responsibilities and roles • Communication and/or inter-institutional coordination maps or documents • Individual stakeholder official role and communication channel documents • High-level meetings minutes 	<p>Authorities agree to incorporate new functions related to GMO's M&S in their responsibilities and work plans; designating staff for these functions and securing resources for operation.</p>
	# of M&S procedures rolled(i.e use of strip test, field supervision missions, etc)	Baseline: 1	3 monitoring procedures rolled out.	4 monitoring procedures rolled out		
	# of biosafety measures implemented in the National Custom System. (mock or real by custom officers).	0 Biosafety measures applied in the custom system	Biosafety measures used /tested at 2 custom checkpoints.	Biosafety measures used /tested at 2 custom checkpoints.	<ul style="list-style-type: none"> • Official Policy and implementation plan describing technical profiles, role, scope, operation, tasks and structure of National Custom System • Resolution or decree establishing biosafety measures for the National Custom System. 	<p>The National Custom System (or its equivalent) is recognized as an integral part of the national biosafety system.</p> <p>There is continuity in the personnel institutional delegates.</p>

Outputs for Outcome 1.3:

1.3.1 Operative guidelines and clear roles and responsibilities for a monitoring and surveillance system developed (using as a base the early developments done during the implementation projects)

1.3.2 Strategy for field detection (screening procedure) developed.

1.3.3 Administrative and technical guides designed for each institution involved in the National Custom System.

1.3.4 Workshops (4) for custom officers on monitoring and surveillance.

Component 2: Strengthening of administrative and technical biosafety system of the National Competent Authorities (NCAs), in line with article 2.1 of the CPB						
Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 2.1: Country with administrative and operative capacities to process GMO applications	at least 2 GMO applications (mock or real) have been processed	1 GMO applications have been processed.	Digital system under development (designed completed, servers purchased, IT configuration in progress).	2 applications (mock or real) processed through the new digital system	NCA internal guidelines or approval documents. Digital system Project M&E reports.	Stakeholders agree to develop joint and coordinated risk assessment and management methodologies as well as coordinated administrative systems. The national biosafety law has been approved and serves as a basis for the process.
Outputs for Outcome 2.1: 2.1.1 Sectorial regulations and their respective implementation tools for biosafety regulation, developed during the previous Implementation Project, tested and submitted for approval 2.1.2 Digital system for managing GMO applications in place and connecting all competent authorities as a single window for processing applications. 2.1.3 Hands on training for the NCA's personnel (2 mock exercises on how to process dossiers using the new digital system).						
Component 3: Strengthening the science-policy link through public awareness and education tools						
Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 3.1: Science-policy link is strengthen through a better informed biosafety decision-making process	# of high level sensitization events for policy makers and decision-makers # of informative materials developed	0 members of the new authorities sensitized about biosafety	2 high level sensitization meetings 100% of informative materials designed and 50% of Informative materials produced	4 high level sensitization meetings 100% of informative materials designed and 100% of Informative materials produced	Memories of workshops. Informative material published.	The relevant decision makers agree to participate and assign personnel and resources for reaching the outputs of this outcome. The political situation in Guatemala remains stable and there are no unexpected changes in authorities.
Outputs for Outcome 3.1: 3.1.1 Four high level meetings to sensitize politicians and decision makers on the country's biosafety capacities. 3.1.2. Informative materials for sensitization of decision-makers developed 3.1.3 Informative materials on the role of men and women in biosafety developed						
Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and

	Indicators	Baseline	Midterm Target	End of project Target		assumptions
Outcome 3.2: A national biotechnology and biosafety educational strategy contributes to public awareness.	Biosafety is included in the education topics for primary and secondary schools	Biosafety and biotechnology not included in the national educational system.	1 National educational strategy in biosafety and biotechnology drafted.	National educational strategy in biosafety and biotechnology approved and adopted by the Ministry of Education.	<ul style="list-style-type: none"> Approved strategy and educational materials Minutes of meetings with the ministry of education Meetings and workshops records and minutes. 	Education Ministry agrees to participate and provide co-financing.
	#of teaching materials available for primary and secondary school and teachers.	0 specific teaching materials available.	3 Teaching materials (e.g. booklets) for the implementation of the strategy designed.	4 Teaching materials (e.g. booklets) for the implementation of the strategy produced and approved by Education Ministry.	<ul style="list-style-type: none"> Approved documents Meetings and workshops records and minutes Cooperation agreements signed Project reports. 	Education Ministry participates and provides co-financing Availability of trained national personnel to write the booklets.

Outputs for Outcome 3.2:

3.2.1 Draft of a national educational strategy in biosafety and biotechnology.

3.2.2 Teaching materials (booklets) to facilitate future implementation of the national strategy generated for primary and secondary school students and teachers.

Component 4: Developing capacities on liability and redress (Article 27) and socioeconomic considerations (Article 26)

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 4.1: Guatemala moved towards ratification of the Nagoya - Kuala Lumpur Protocol.	Ratification of the Nagoya-Kuala Lumpur Protocol on the agenda of National authorities	The Protocol is completely unknown in Guatemala and there are not national efforts to ratify yet since the topic is still not well understood.	<p>The Protocol has been widely discussed among the different stakeholder institutions related to biosafety, biotechnology and biodiversity (through meetings, round tables, etc).</p> <p>The importance of its ratification is well known since it is important to protect the great Guatemala's biodiversity (a mega diverse country).</p>	Main stakeholders are aware of the importance of ratifying the NKLP, and the country moves towards ratifying the instrument.	<p>Commission minutes. Event invitation lists. Event agendas and participants lists.</p> <p>NCA internal approval documents and official communications</p>	The NCAs and the main stakeholder institutions show interest in discussing and approve the ratification of the protocol.

Outputs for Outcome 4.1:

4.1.1 Analysis of the juridical and technical implications of ratification of the supplementary protocol.

4.1.2 Public awareness activities among decision-makers and other stakeholders.

4.1.3NKLP ratification document for ratification by the relevant authority

4.1.4 Proposal on how to include and manage liability and redress (L&R) issues in the current biosafety administrative system

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 4.2: Guatemala takes into account socio economic	# of socio-economic considerations take into account for decision-	0 socio-economic considerations included in GMO decision making	Socio-economic considerations are identified and analyzed	Socio- economic considerations included in biosafety tools (i.e	Minutes of meetings Memories of workshops Methodologies drafted.	NCAs agree to discuss and take into account socio

consideration In GMO decision-making	making Project activities take into account role of indigenous and local communities, as well as differences between roles played by women and men in agriculture in Guatemala (maize as a case study).	since there have been no applications processed Information available concerning the role of women, men, and indigenous communities in agriculture, and on the importance of maize in cultural traditions. However there is no clarity on the impact that adoption of GMOs could have for these groups	for inclusion in decision-making process Analysis of the roles of men, women and indigenous communities in agriculture in Guatemala, and in particular in relation to the use of maize.	guidelines, legal instruments, etc) Outcome of the study is taken into account in the inclusion of socioeconomic considerations in decision-making.		economic aspects.
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Output for Outcome 4.3:

4.2.1 Study of the existing national and regional approaches related to the use of socioeconomic consideration in decision making.

4.2.2 Analysis of the technical and legal implications of the implementation of Article 26 of the CPB.

Component 5: Conservation of native biodiversity in support of biosafety related activities

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 5.1: Protection of native genetic resources of agricultural importance (e.g. maize) is increased through the application of biosafety measures,	Better knowledge of Maize's genetic diversity in Huehuetenango Region. Local communities (in particular those of Huehuetenango region) have been consulted.	national collections and incomplete morphological characterization No molecular characterization available, Not enough knowledge of possible impacts of GMOs adoption by local communities.	By PY2, academic institutions conducting research on maize genetic diversity identified; GM free zones normative drafted and socialized, and including feedback of local communities, in particular those of Huehuetenango region. Support agreements have been signed with academia institutions for conducting maize data.. Germplasm collecting has been conducted in at least one region of Guatemala (western part).	Results published and shared with the NCAs to support risk assessment and eventual decision-making. GM free zones normative approved by authorities in support of biosafety decision-making	Signed support agreements. Technical reports. Publications Information on scientific work along these lines done by academic institutions.	SENACYT and other academy institutions agree to participate and provide co-financing.

Outputs for Outcome 5.1:

5.1.1 Maize baseline data (morphologic, genetic, socioeconomic and distribution of wild maize) is strengthened through support of ongoing research initiatives and data gathering activities.

5.1.2 Normative, defining GMO's free zones, is drafted.

Outcomes and Outputs	Objectively Verifiable Indicators				Sources of verification	Risks and assumptions
	Indicators	Baseline	Midterm Target	End of project Target		
Outcome 5.2: There is a clear link between biodiversity protection and biosafety actions.	1 GM free zone established	No GMO free zone in Guatemala	Proposal for creation of Genetic reserve drafted and socialized with local communities, and decision-makers	Genetic reserve proposal finalized and approved by authorities. Corn genetic reserve is establish and local authorities commit resources for its operations.	Technical reports. Drafted proposal. Signed agreements.	Local authorities agree to participate and provide cofinancing. National authorities are prone to approve and implement the new in situ conservation model.
Outputs for Outcome 5.2: 5.2.1 A maize genetic reserve is established in Huehuetenango region based on systematization of information from 5.1.1 and land use regulations.						

Gender indicators for project execution:

- Equal opportunities provided to men and women for project related positions (i.e project staff and consultancies).
- Thesis projects as indicated in component 5 will be provided on basis of gender equality.