

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 accreditation 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		

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.	The Protocol has been widely discussed among the different stakeholder institutions related to biosafety, biotechnology and biodiversity (through meetings, round tables, etc). The importance of its ratification is well known since it is important to protect the great Guatemala's biodiversity (a mega diverse country).	Main stakeholders are aware of the importance of ratifying the NKLP, and the country moves towards ratifying the instrument.	Commission minutes. Event invitation lists. Event agendas and participants lists. NCA internal approval documents and official communications	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	Indicators	Objectively Verifiable Indicators			Sources of verification	Risks and assumptions
		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	Indicators	Objectively Verifiable Indicators			Sources of verification	Risks and assumptions
		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.