
Terminal Evaluation of the UN Environment – GEF Project “Contributing to the Safe Use of Biotechnology in El Salvador”



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"Contributing to the Safe Use of Biotechnology in El Salvador"

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About the Evaluation

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Brief Description: This report is a terminal evaluation of a UN Environment-GEF project implemented in El Salvador between December 2010 and April 2018. The Project Objective was "to consolidate and implement an operational system for the safe use of biotechnology in El Salvador, in agreement with national priorities and international obligations". 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 the executing partner, the Ministry of Environment and Natural Resources (MARN) of El Salvador, and the relevant stakeholders of the project.

Key words: [biosafety, Living Modified Organisms (LMOs), Cartagena Protocol, policy and legal frameworks, risk assessment, risk management, Biosafety Clearing House (BCH), capacity building, safe use of biotechnology, Project Evaluation, GEF]¹

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

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List of Acronyms & Abbreviations

Acronyms

APA	Association of Agro-industrial Suppliers
BCH	Biosafety Clearing House
CAMAGRO	El Salvador's Agricultural and Agro-industrial Chamber
CENTA	National Centre of Agricultural and Forestry Technolog
CONACYT	National Council for Science and Technology
CP or CPB	Cartagena Protocol on Biosafety
FIAGRO	Foundation for Technological Innovation in Agriculture
GEF	Global Environment Facility
IICA	Interamerican Institute for Agricultural Cooperation
LMO	Living Modified Organism
LMO-FFPs	Living Modified Organism for Food, Feed or Processing
M&E	Monitoring and Evaluation
MAG	Ministry of Agriculture and Livestock
MARN	Ministry of Environment and Natural Resources
MINED	Ministry of Education
MINSAL	Ministry of Health
nBCH	National Biosafety Clearing House
NBF	National Biosafety Framework
NCA	National Competent Authority(ies)
NGOs	Non-Governmental Organizations
NPC	National Project Coordinator
ProDoc	Project Document
TOC	Theory of Change

Abbreviations

National Policy	National Policy for Biotechnology and Biosafety
Special Regulation	Special Regulation for the Safe Use of Genetically Modified Organisms
UN Environment	United Nations Environment Programme

Table 1. Project Identification Table

GEF Project ID:	3332	IMIS Number	GFL 2328 2716 4B69
Implementing Agency:	UN Environment Division: DEPI	Executing Agency:	Ministry of Environment and Natural Resources (MARN)
Sub-programme:	Environmental Governance	Expected Accomplishment(s):	(Mid-Term Strategy 2010-2013) Governance EA(b): States increasingly implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions. (Mid-Term Strategy 2014-2017) Environmental Governance EA2: The capacity of countries to develop and enforce laws and strengthen institutions to achieve internationally agreed environmental objectives and goals and comply with related obligations is enhanced.
UN Environment approval date:	30 Nov. 2010	PRC approval date:	21 December 2009
GEF approval date:	3 June 2010	Project type:	Medium Size Project (MSP)
GEF Strategic Priority:	GEF IV: BD-SP6	Focal Area(s):	Biodiversity (Biosafety)
Expected start date:	August 2010	Actual start date:	December 2010
Planned completion date:	August 2014	Actual completion date:	29 April 2018
Planned project budget at approval:	1,925,000 USD	Actual total expenditures reported as of March 2018:	2,522,594.27 USD
GEF grant allocation:	900,000 USD	GEF grant expenditures reported as of March 2018:	900,000 USD
Project Preparation Grant - GEF financing:	9,091 USD	Project Preparation Grant - co-financing:	10,000 USD (in kind)
Expected Medium-Size Project co-financing:	1,025,000 USD	Secured Medium-Size Project co-financing:	1,622,594.27 USD
First disbursement:	16 December 2010	Date of financial closure:	N/A
No. of revisions:	10	Date of last revision:	March 2018
No. of Steering Committee meetings:	Confirmed: 9	Date of last Steering Committee meeting:	29 August 2017
Mid-term Review (planned date):	October 2012	Mid-term Review/ (actual date):	December 2012 – January 2013
Terminal Evaluation (planned date):	April 2018	Terminal Evaluation (actual date):	September 2018 – January 2019
Coverage - Country(ies):	El Salvador	Coverage - Region(s):	Latin America

Executive Summary

1. The project "*Contributing to the Safe Use of Biotechnology in El Salvador*" was implemented over an 88 month-period between December 2010 and April 2018 and required three no-cost extensions (the intended duration was 4 years). The executing agency was MARN -the Ministry of Environment and Natural Resources of El Salvador- with UN Environment providing technical oversight as the designated implementing agency. The overall budget of US\$ 1,934,091 was funded by the Global Environment Facility (GEF) and by national co-financing, with GEF allocating a US\$ 900,000 grant to project implementation and US\$ 9,091 for its design; and the national executing agency and project partners providing US\$ 1,025,000 in co-financing (in-kind) for project implementation and US\$ 10,000 for project preparation.
2. The project objective was to consolidate and implement an operational system for the safe use of biotechnology in El Salvador, in agreement with national priorities and international obligations, and to achieve direct influence over the care of the environment through more efficient operations of modern biotechnology. The project had five technical components: (1) Achieving the political integration of biosafety in national policies, plans and programs; (2) Putting into effect a fully functional legal framework in accordance with the Cartagena Protocol; (3) Setting up a system for handling requests and decision-making system, based on risk assessment and risk management practices; (4) Setting up a system for monitoring, inspection and vigilance in biosafety, with emphasis generating information; and (5) Ensuring public awareness and participation processes in biosafety.
3. Evaluation findings indicate that the project successfully delivered most Outputs (identified as part of this evaluation) and achieved its expected Immediate Outcomes to a high extent, despite a delayed start-up and changes in the national context (different government outlook between project approval and project start-up) that limited project implementation. The process of developing a functional national biosafety system was slow but reached a new threshold with the approval of enabling policies and regulatory instruments, training in risk assessment, new risk management capacities, and the incorporation of biosafety and biotechnology into university curricula. Overall, improved institutional preparedness and understanding of biosafety issues and commitments have contributed to a progressive uptake of the country's National Biosafety Framework (NBF).
4. The project raised public awareness, generated significant capacities and delivered several Outputs of recognized technical quality and relevance that have a high impact potential:
 - a. The country's first National Policy for Biotechnology and Biosafety counts with ample political support and was recently approved by the President, setting a new stage for biotechnology development in El Salvador.
 - b. Key regulatory instruments and procedures that will enable the existing biosafety regulation to operate have been either completed or adopted, namely: procedures for Living Modified Organisms (LMOs) in transit; environmental evaluation procedures and audit procedures for LMOs to be introduced in El Salvador (LMO production projects); instructions for public consultation processes; and decision-making procedures for LMOs that are imported for Food, Feed or Processing (LMO-FFPs).

- c. Individual and institutional capacities for biosafety risk assessment, management and communication were strengthened through exchanges and training workshops involving international experts. The project's extensive awareness-raising and training support was greatly appreciated by project stakeholders and considered to be of high quality and impact. The "de-mystification" of biotechnology was achieved to a large extent thanks to these multi-sectoral capacity building efforts.
 - d. Risk management (monitoring and surveillance) and law enforcement capacities were also strengthened in MARN through laboratory equipment, techniques and trained personnel for LMO detection. In the absence of demand, however, the capacities installed linked to know-how may decline over time.
 - e. On-line information management shows improved transparency and coherency through the upgrading of biosafety information systems on MARN's webpage (national Biosafety Clearing House and the "single window" to facilitate LMO applications - not yet publicly accessible). These systems facilitate access to regulations, policies, contacts, guidelines, flowcharts, application forms and informative material.
 - f. Incorporation of biotechnology and biosafety into university curricula has been achieved, adding to NBF sustainability and project impact. The collaboration with the academic sector allowed biosafety and biotechnology to permeate into the education agenda, with a strategy to this effect also drafted for consideration by education authorities. Private universities launched new careers and updated existing ones, and academics from many universities introduced biosafety /biotech topics into their teachings. Methodological guidelines for teaching about biosafety were produced and distributed (universities and schools).
5. Despite all the advances and the momentum that were achieved, the project objective was not fully met. The reasons say more about project design than performance. A small number of important outputs and outcomes were partially delivered because they required public or private sector decisions that were outside the project's direct influence. National elections 18 months before project start and a new political ideology were the main factors outside the project's control that changed the project's internalization climate. Its implementation became low priority when the project had been conceived as a fast-achiever, motivated by the exceptionally good baseline conditions that existed at the time of project design.
6. Project design was logically sequenced yet lacked a clear list of Outputs, which had to be reconstructed as part of this evaluation. It was also overly ambitious and conditioned project performance to be against implementation-driven targets that were dependent on external decisions yet misaligned with political priorities. Without decisions being taken, a period of low country driven-ness ensued that affected project performance and partly explains the almost two-fold duration of the project. However, after two consecutive periods, the government has "come around" to biosafety, recognizing that El Salvador is better off with a functional NBF than without. As a result, several high-impact Output approvals have occurred in recent years, prompting change along several of the project's causal pathways.
7. Given the change of government that is due to occur in June 2019, the likelihood that project results will be maintained and implemented is now uncertain. The project's final impact will largely

depend on the new government's interest in biosafety and executive decisions as to the system's implementation, and on whether the private sector's interest in seeking LMO approvals is reawakened. Should this occur, project results would be steps away from realizing their intended Objectives.

8. The following factors, from which there are lessons to be learnt, were found to limit project performance:

- a. **Project reporting, management and supervision** was affected by unexpected changes in NPCs, high staff turnover and a dwindling project team at the end of the project. Onerous administrative and internal approval processes also factored in, leading to delays in project implementation and to an "adaptive" delivery of Outputs. The absence of a Task Manager in the first project semester was also a debilitating factor, while the role of the Inter-institutional Biosafety Committee in project supervision and planning (i.e. its Steering Committee role) was found to be deficient. The quality of project reporting and monitoring was affected by different workplan formats being used interchangeably, one of which lacked proper alignment with the project's logframe and targets, and by necessary changes derived from adaptive management not being formally integrated into the results framework in order to update and streamline the project's design. It was also affected by the absence of Outputs, even though this was compensated by inferring "deliverables" from the project's targets and activities.
- b. **Country ownership and driven-ness** shifted significantly during the life of the project. Low priority was initially given to biosafety, creating uphill conditions for implementation. The project had to apply adaptive management, lower its aspirations regarding government ownership of the NBF and put important Outputs on the "back burner" until the political context changed. This led to delays in project delivery which affected performance, yet conditions shifted with time and resulted in MARN delivering the crucial elements of a functional NBF and justifying its three no-cost extensions. Uptake of the NBF is beginning to happen but whether this matures into full country ownership of the NBF under the incoming government remains to be seen.
- c. **Stakeholder participation and cooperation** took different turns, depending on the sector. Academic sector involvement was productive and mutually beneficial, while private sector involvement was not. The main motor for participation and cooperation was the Inter-institutional Biosafety Committee, which functioned well as a platform for project delivery but slowly dissolved after changes in project management. Communications dwindled, leaving Committee members feeling cut-off from the project and mostly unaware of the project's final results. Stakeholder participation was also weakened by the loss of private sector participation and the low profile given to the non-Governmental sector.

9. Currently, conditions for sustainability are favourable and will further increase if MARN together with the Ministry of Health and the Ministry of Agriculture and Livestock can adopt the pending regulatory instruments (now in the process of being officialised) before the change of government. Approval of the National Policy for Biotechnology and Biosafety is a landmark achievement that enhances the prospects for NBF sustainability. Having a biosafety regulation under the Environment Law (a pre-project condition) also confers the NBF with continued funding for risk assessments, environmental permits, public consultations and environmental audits. This,

combined with MARN's newly installed LMO detection capacity (laboratory equipment and trained staff) and short-term plans to create a Unit dedicated to biosafety and the Cartagena Protocol, bodes well for the NBF's institutional and financial sustainability. In addition, the uptake of biosafety and biotechnology by universities is strategic for NBF sustainability, as having professionals continually formed in these topics will build the human resource base for biosafety implementation.

10. MARN's role in maintaining the biosafety agenda in the next government will be paramount and should be examined in the context of a transition strategy. How this agenda is taken forward will largely depend on the position of incoming authorities regarding biosafety and on the extent to which they value the legacy left by the outgoing government in the form of a ready-to-roll-out NBF. MARN authorities should take into account that now MARN is well positioned as the leading national authority in biosafety and has prompted other Ministries to slowly take ownership of their part in NBF implementation. Where institutional articulation is strongest is around the trade, commercial and health related concerns raised by LMO-FFPs.

11. The recommendations from this evaluation point to the need for MARN to ensure that regulatory instruments, structures and information systems pending approval are adopted before the change of government (June 2019) and to seek ways to effectively transition the biosafety agenda into the next government. This will mean sensitizing new authorities to the substantial progress already made; to MARN's leadership role; to the relevance of the newly approved National Policy for Biotechnology and Biosafety biotechnology for El Salvador; and to the need to continue efforts in NBF implementation, especially to consolidate inter-institutional coordination and NBF operations. Indeed, dissemination and launching of the National Policy are short-term actions that can raise the prospects for biosafety with the new government.

12. Taking the initial steps to arrive at an Implementation Plan for the policy is also recommended, in order to get this task off to an early start and take advantage of contributions by members of the Inter-institutional Biosafety Committee. There is also a need to integrate new actors that have so far been absent from the biosafety debate, namely, smallholder producer groups, indigenous peoples, women's groups and the non-governmental sector in general. Lastly recommendations for optimizing project closure are made, including a final meeting with the Inter-institutional Committee in order to provide updated information on project results as well as an opportunity for learning and reflection.

Table 2. Summary of overall evaluation ratings

Criterion	Rating
A. Strategic Relevance	HS
1. Alignment to UN Environment's MTS and Programme of Work	HS
2. Alignment to Donor/ GEF strategic priorities	HS
3. Relevance to regional and national environmental priorities	HS
4. Complementarity with existing interventions	HS
B. Quality of Project Design	MS
C. Nature of External Context	MU
D. Effectiveness	S

Criterion	Rating
1. <i>Delivery of outputs</i>	MS
2. <i>Achievement of direct outcomes</i>	S
3. <i>Likelihood of impact</i>	L
E. Financial Management	S
1. <i>Completeness of project financial information</i>	S
2. <i>Communication between finance and project management staff</i>	S
F. Efficiency	MS
G. Monitoring and Reporting	MS
1. <i>Monitoring design and budgeting</i>	MS
2. <i>Monitoring of project implementation</i>	MS
3. <i>Project reporting</i>	MS
H. Sustainability *	L
1. <i>Socio-political sustainability</i>	L
2. <i>Financial sustainability</i>	L
3. <i>Institutional sustainability</i>	HL
I. Factors Affecting Performance	S
1. <i>Preparation and readiness</i>	MS
2. <i>Quality of project management and supervision</i>	MS
3. <i>Stakeholders participation and cooperation</i>	MS
4. <i>Responsiveness to human rights and gender equity</i>	MS
5. <i>Country ownership and driven-ness</i>	S
6. <i>Communication and public awareness</i>	S
Overall Project Rating	S

* The overall rating for Sustainability is the lowest rating among the three sub-categories

Resumen Ejecutivo

13. El proyecto “Contribución al Uso Seguro de la Biotecnología en El Salvador” se implementó durante un período de 88 meses entre diciembre de 2010 y abril de 2018, y requirió tres extensiones sin costo (la duración prevista era de 4 años). El organismo ejecutor fue MARN (el Ministerio de Medio Ambiente y Recursos Naturales de El Salvador) mientras que la Organización de las Naciones Unidas para el Medio Ambiente (ONU Medio Ambiente) prestó la supervisión técnica como Agencia de Implementación. El presupuesto total de US\$ 1,934,091 fue financiado por el Fondo para el Medio Ambiente Mundial (GEF por sus siglas en inglés) y por cofinanciamiento nacional, con el GEF asignando una donación de US\$ 900,000 para la implementación del proyecto y US\$ 9,091 para su diseño; y la agencia ejecutora nacional y los socios del proyecto proporcionando US\$ 1,025,000 en cofinanciamiento (en especie) para la implementación del proyecto y US\$10,000 para su preparación.

14. El objetivo del proyecto era consolidar e implementar un sistema operacional para el uso seguro de la biotecnología (o “bioseguridad”) en El Salvador, de acuerdo con las prioridades nacionales y las obligaciones internacionales, y lograr una influencia directa sobre el cuidado del medio ambiente a través de operaciones más eficientes de la biotecnología moderna. El proyecto tenía cinco componentes técnicos: (1) Lograr la integración política de la seguridad de la biotecnología en las políticas, planes y programas nacionales; (2) Poner en práctica un marco legal plenamente funcional de acuerdo con el Protocolo de Cartagena; (3) Establecer un sistema para manejar solicitudes y tomar decisiones, basado en la evaluación de riesgos y las prácticas de gestión del riesgo; (4) Establecer un sistema de monitoreo, inspección y vigilancia en bioseguridad, con énfasis en la generación de información; y (5) Asegurar procesos de concientización y participación pública en bioseguridad.

15. Los hallazgos de la evaluación indican que el proyecto entregó con éxito la mayoría de sus productos (identificados como parte de esta evaluación) y en gran medida logró los resultados inmediatos esperados, a pesar de un inicio demorado y cambios en el contexto nacional (diferentes perspectivas gubernamentales entre la aprobación del proyecto y su puesta en marcha) que limitaron la implementación del proyecto. El proceso de desarrollo de un sistema nacional y funcional de bioseguridad fue lento, pero alcanzó un nuevo umbral con la aprobación de políticas habilitadoras e instrumentos regulatorios, capacitación en evaluación de riesgos, nuevas capacidades de gestión de riesgos y la incorporación de la bioseguridad y la biotecnología en los planes de estudios universitarios. En general, una mejor comprensión y preparación institucional ante los temas y compromisos relacionados con la seguridad de la biotecnología ha contribuido a una adopción progresiva del Marco Nacional de Bioseguridad (NBF por su sigla en inglés) en el país.

16. El proyecto generó conciencia pública, generó capacidades significativas y entregó varios Productos de calidad y relevancia técnica reconocidas que tienen un alto potencial de impacto:

- a. La primera Política Nacional de Biotecnología y Bioseguridad del país cuenta con un amplio respaldo político y fue aprobada recientemente por el Presidente de la República, estableciendo un nuevo escenario para el desarrollo de la biotecnología en El Salvador.

- b. Se han completado o adoptado los instrumentos y procedimientos regulatorios clave que permitirán el funcionamiento de la reglamentación existente de bioseguridad, a saber: procedimientos para organismos vivos modificados (OVM) en tránsito; procedimientos de evaluación ambiental y procedimientos de auditoría para los OVM que se introducirán en El Salvador (proyectos de producción de OVM); instrucciones para los procesos de consulta pública; y los procedimientos de toma de decisiones para los OVM que se importan para alimentos, piensos o procesamiento.
 - c. Se fortalecieron las capacidades individuales e institucionales para la evaluación, gestión y comunicación del riesgo en bioseguridad, a través de intercambios y talleres de capacitación con expertos internacionales. El amplio apoyo del proyecto a las necesidades de concientización y capacitación fue muy apreciado por las partes interesadas del proyecto y se consideró de alta calidad e impacto. La "desmitificación" de la biotecnología se logró en gran medida gracias a estos esfuerzos de fortalecimiento de capacidades multisectoriales.
 - d. Las capacidades de gestión del riesgo (monitoreo y vigilancia) y fiscalización también se fortalecieron en MARN a través de equipos de laboratorio, nuevas técnicas y personal capacitado para la detección de OVM. Sin embargo, ante la falta de demanda, las capacidades instaladas vinculadas al "know-how" pueden disminuir con el tiempo.
 - e. La gestión de la información en línea muestra una mayor transparencia y coherencia luego de la actualización de los sistemas de información sobre bioseguridad en la página web del MARN (el Centro Nacional de Intercambio de Información sobre Bioseguridad y una "ventana única" para facilitar las aplicaciones de OVM que aún no está disponible públicamente). Estos sistemas facilitan el acceso a las regulaciones, políticas, contactos, directrices, diagramas de flujo, formularios de solicitud y material informativo.
 - f. Se ha logrado la incorporación de la biotecnología y la bioseguridad en los currículos universitarios, lo que suma a la sostenibilidad del MNB y al impacto del proyecto. La colaboración con el sector académico permitió que la bioseguridad y la biotecnología penetraran en la agenda educativa, con una estrategia a tal efecto también elaborada para consideración de las autoridades educativas. Las universidades privadas iniciaron nuevas carreras y actualizaron las existentes, y académicos de muchas universidades introdujeron temas de bioseguridad / biotecnología en sus enseñanzas. Se elaboraron y distribuyeron directrices metodológicas para la enseñanza de la bioseguridad (universidades y colegios).
17. A pesar de todos los avances y el impulso que se lograron, el objetivo del proyecto no se pudo cumplir plenamente. Las razones hablan más sobre el diseño del proyecto que sobre su desempeño. Un pequeño número de productos y resultados importantes se alcanzaron parcialmente porque requerían de decisiones del sector público o privado que estaban fuera de la influencia directa del proyecto. Las elecciones nacionales 18 meses antes del arranque del proyecto y una nueva ideología política fueron los factores principales, fuera del control del proyecto, que cambiaron el clima con el que se internalizó el proyecto. Su implementación se convirtió en baja prioridad, cuando había sido concebido como un proyecto de rendimiento alto y rápido, motivado por las excepcionalmente buenas condiciones de línea de base que existían en el momento del diseño del proyecto.

18. El diseño del proyecto tenía una secuencia lógica, pero carecía de una lista clara de productos, la que hubo que reconstruir como parte de esta evaluación. También era altamente ambicioso, lo que hacía que el desempeño del proyecto estuviera condicionado al logro de metas de implementación que a su vez dependían de decisiones externas al tiempo que estaban desalineadas con las prioridades políticas. Al no haber decisiones de bioseguridad, se produjo un período de bajo avance nacional que afectó el desempeño del proyecto y en parte explica su casi duplicada duración. Sin embargo, después de dos períodos consecutivos, el gobierno se ha "acercado" a la bioseguridad, reconociendo que El Salvador está mejor con un MNB funcional que sin uno. Como resultado, se han dado varias aprobaciones de productos de alto impacto en los últimos años, lo que ha provocado avances en varias de las vías causales de la Teoría del Cambio del proyecto.

19. Dado el cambio de gobierno que debe ocurrir en junio de 2019, la probabilidad de que los resultados del proyecto se mantengan e implementen es ahora incierta. El impacto final del proyecto dependerá en gran medida del interés del nuevo gobierno en la bioseguridad y en tomar decisiones ejecutivas sobre la implementación del sistema, y de si se reaviva el interés del sector privado en buscar aprobaciones de OVM. En caso de que esto ocurra, los resultados del proyecto estarían a pocos pasos de alcanzar sus objetivos previstos.

20. Se encontró que los siguientes factores, de los cuales hay lecciones que aprender, limitaron el desempeño del proyecto:

a. **El reporte, la gestión y la supervisión del proyecto** se vieron afectados por cambios inesperados en los Coordinadores Nacionales del Proyecto, una alta rotación de personal y el disminuido equipo de proyecto que hubo al final del mismo. También pesaron los onerosos procesos administrativos y de aprobación interna, que provocaron retrasos en la implementación del proyecto y una entrega "adaptativa" de resultados. La ausencia de la contraparte en ONU Ambiente ("Task Manager") en el primer semestre del proyecto también fue un factor debilitante, mientras que el papel del Comité Interinstitucional de Bioseguridad en la supervisión y planificación del proyecto (es decir, en su función como Comité Directivo) fue insuficiente. La calidad de los informes y del monitoreo del proyecto se vio afectada por los diferentes formatos de planes de trabajo que se utilizaron indistintamente (uno de los cuales carecía de una adecuada alineación con el marco lógico y metas del proyecto) y por el hecho de que los cambios necesarios derivados de la gestión adaptativa no se integraron formalmente en el marco de resultados para actualizar y optimizar el diseño del proyecto. También se vio afectada por la ausencia de Productos en el marco de resultados, aunque esto se pudo compensar infiriendo "entregables" a partir de las metas y actividades del proyecto.

b. **La apropiación y motivación del país** con la bioseguridad cambió significativamente durante la vida del proyecto. Inicialmente, se dio poca prioridad a la bioseguridad, lo que generó condiciones cuesta arriba para la implementación. El proyecto tuvo que aplicar una gestión adaptativa, disminuir sus aspiraciones con respecto a la apropiación del MNB por parte del gobierno y poner productos importantes en segundo plano hasta que el contexto político cambiase. Esto llevó a retrasos en el proyecto que afectaron su desempeño, pero las condiciones cambiaron con el tiempo y dieron lugar a que MARN entregara los elementos cruciales de un MNB funcional y justificara sus tres extensiones sin costo. La aceptación del

MNB está comenzando a ocurrir, sin embargo está por verse si esto conduce a una apropiación plena del MNB en el país bajo el gobierno entrante.

- c. **La participación y cooperación de las partes interesadas** tomó diferentes rumbos, dependiendo del sector. La participación del sector académico fue productiva y mutuamente beneficiosa, a diferencia de la participación del sector privado. El principal motor de participación y cooperación fue el Comité Interinstitucional de Bioseguridad, que funcionó bien como una plataforma para la generación de productos, pero se disolvió lentamente después de cambios en la gestión del proyecto. Las comunicaciones disminuyeron, dejando a los miembros del Comité sintiéndose aislados del proyecto y, en su mayoría, inconscientes de los resultados finales del proyecto. La participación de los interesados también se vio debilitada por la pérdida de la participación del sector privado y el bajo perfil otorgado al sector no gubernamental.
21. Actualmente, las condiciones para la sostenibilidad son favorables y aumentarán aún más si el MARN junto con el Ministerio de Salud y el Ministerio de Agricultura y Ganadería adoptan los instrumentos reglamentarios pendientes (ahora en proceso de oficialización) antes del cambio de gobierno. La aprobación de la Política Nacional de Biotecnología y Bioseguridad es un logro histórico que mejora las perspectivas de sostenibilidad del MNB. Tener una regulación de bioseguridad en virtud de la Ley de Medio Ambiente (una condición previa al proyecto) también confiere al MNB fondos continuos para evaluaciones de riesgo, permisos ambientales, consultas públicas y auditorías ambientales. Esto, combinado con la capacidad de detección de OVM recién instalada (equipo de laboratorio y personal capacitado) y los planes a corto plazo para crear una Unidad dedicada a la bioseguridad y el Protocolo de Cartagena, es un buen augurio para la sostenibilidad institucional y financiera del MNB. Además, la adopción de la bioseguridad y la biotecnología por parte de las universidades es estratégica para la sostenibilidad de MNB, ya que la formación continua de profesionales en estos temas construirá una base de recursos humanos disponibles para la implementación de la bioseguridad.
22. El papel del MARN en mantener vigente la agenda de bioseguridad en el próximo gobierno será primordial y se debe examinar en el contexto de una estrategia de transición. La forma en que se lleve adelante esta agenda dependerá en gran medida de la posición de las autoridades entrantes con respecto a la bioseguridad y de cuánto éstas valoren el legado que deja el gobierno saliente en forma de un MNB listo para ser implementado. Las autoridades del MARN deberían tener en cuenta que el Ministerio está ahora bien posicionado como la autoridad nacional líder en bioseguridad y ha impulsado a otros ministerios a apropiarse de su parte de la implementación del MNB. Donde la articulación institucional es más fuerte es alrededor de las preocupaciones comerciales y de salud que suscitan los OVM destinados a alimentos, piensos o procesamiento.
23. Las recomendaciones de esta evaluación apuntan a la necesidad de que el MARN asegure que los instrumentos regulatorios, las estructuras y los sistemas de información pendientes de aprobación se adopten antes del cambio de gobierno (junio de 2019) y busque formas de hacer una transición efectiva de la agenda de bioseguridad al próximo gobierno. Esto significará sensibilizar a las nuevas autoridades sobre el progreso sustancial que se ha tenido; la función de liderazgo del MARN; la relevancia para El Salvador de la recientemente aprobada Política Nacional de Biotecnología y Bioseguridad; y a la necesidad de continuar con los esfuerzos de implementación del MNB, especialmente para consolidar la coordinación interinstitucional y las

operaciones del MNB. En efecto, la difusión y el lanzamiento de la Política Nacional son acciones a corto plazo que pueden elevar las perspectivas de la bioseguridad con el nuevo gobierno.

24. También se recomienda tomar los pasos iniciales para llegar a un Plan de Implementación de la Política, con el fin de comenzar tempranamente con esta tarea y aprovechar las contribuciones que pudieran hacer los miembros del Comité Interinstitucional de Bioseguridad. También es necesario integrar a nuevos actores que hasta ahora han estado ausentes del debate sobre bioseguridad, a saber, los grupos de pequeños productores, los pueblos indígenas, los grupos de mujeres y el sector no gubernamental en general. Por último, se hacen recomendaciones para optimizar el cierre del proyecto, incluida una reunión final con el Comité Interinstitucional para proporcionar información actualizada sobre los resultados del proyecto, así como una oportunidad para aprender y reflexionar.

Tabla 1. Resumen de las calificaciones resultantes de la evaluación

Criterio	Resumen de la Evaluación	Calific.
A. Relevancia Estratégica		AS
<i>1. Alineación con la MTS y el Programa de Trabajo de ONU Medio Ambiente</i>	1. El proyecto se alinea bien con la Estrategia de Medio Tiempo (MTS) 2010-2013 bajo la cual fue aprobado, e incluso con los objetivos de gobernanza ambiental de las estrategias posteriores (2014-2017 y 2018-2021). También responde al Plan de Acción Estratégico de Bali y pudo aprovechar la cooperación Sur-Sur.	AS
<i>2. Alineación con las prioridades estratégicas del donante / GEF</i>	El proyecto se alinea completamente con la Estrategia de Financiación de la Bioseguridad del GEF (diciembre de 2006) y con el Programa Estratégico 6 del Objetivo Estratégico 3 del Área Focal de Biodiversidad del GEF-4 (julio de 2007).	AS
<i>3. Pertinencia para las prioridades ambientales regionales y nacionales</i>	El proyecto contribuyó a la implementación de varios marcos de políticas nacionales, y a aclarar y tomar medidas para operacionalizar los marcos regulatorios preexistentes para la seguridad de la biotecnología. También arrojó luz sobre aspectos relacionados con el comercio (por ejemplo, la importación de granos básicos que pueden ser OVM), derivados de acuerdos regionales de libre comercio que El Salvador ha suscrito.	AS
<i>4. Complementariedad con las intervenciones existentes</i>	El proyecto logró sinergias y ahorros mediante complementariedades con la Iniciativa Centroamericana de Biotecnología y Bioseguridad del Instituto Interamericano de Cooperación para la Agricultura y participando en la fase II del proyecto global de ONU Ambiente-GEF para el Centro de Intercambio de Información en Bioseguridad.	AS
B. Calidad del diseño del proyecto	El diseño del proyecto mostró una lógica sólida, capturando todos los elementos necesarios para construir y operar un Marco Nacional de Bioseguridad (MNB) completo. Otras fortalezas de diseño incluyeron un buen análisis de las partes interesadas y análisis de situación / problemática, y un plan de monitoreo y evaluación robusto. Los principales puntos débiles fueron la ausencia de Productos en el marco lógico, un plan de trabajo desalineado, y Resultados Inmediatos altamente ambiciosos que dependían en gran medida de factores externos (decisiones de los sectores público y privado). La sensibilidad del proyecto a temas de derechos humanos e igualdad de género fue moderada, en parte debido a los pocos requisitos del ProDoc a estos efectos.	MS

Criterio	Resumen de la Evaluación	Calific.
C. Naturaleza del contexto externo	Se produjo un fuerte cambio en el contexto político del proyecto entre el momento en que se diseñó (2008-2009) y el momento en que comenzó su ejecución (2010-2011). El gobierno que asumió en 2009 dio baja prioridad política a la bioseguridad, lo que tuvo repercusiones significativas en el desempeño del proyecto.	MD
D. Efectividad		S
<i>1. Entrega de Productos</i>	A pesar de la falta de Productos ("entregables" predefinidos) y la necesidad de ajustar el alcance de muchos de estos, el proyecto finalmente proporcionó los productos y servicios más necesarios para llegar a un sistema de bioseguridad funcional. Esto incluyó resultados clave en temas de política, reglamentación / administración, evaluación de riesgos / toma de decisiones, gestión de la información y educación. Una vez reconstruido el conjunto final de Productos del proyecto, se encontró que el 70% se había alcanzado en su totalidad y el 13% se había logrado parcialmente, muchos de los cuales involucraban la apropiación por parte de otros sectores e instituciones.	MS
<i>2. Logro de resultados directos</i>	El proyecto muestra altas tasas de logro de los Resultados Inmediatos, con un 65% de los Resultados logrados en gran medida y un 35% parcialmente realizados. Estas tasas toman en cuenta los ajustes de alcance que surgieron tempranamente en la implementación. Los logros más notables se dieron en el ámbito de las políticas, con la integración de la bioseguridad en otros sectores y la adopción de una Política Nacional de Biotecnología y Bioseguridad; en el ámbito regulatorio, con mejoras a las regulaciones existentes y su instrumentalización por medio de procedimientos, directrices y formatos; en los campos de la evaluación y gestión de riesgos con la adquisición de mayores capacidades técnicas y tecnológicas; en el ámbito educativo con oportunidades de especialización en bioseguridad surgidas a través del proyecto; y en el campo de la gestión de la información. Si bien es cierto que no se cumplieron todas las suposiciones para avanzar desde los Productos del proyecto hacia los Resultados Inmediatos, esto podría haberse corregido mediante ajustes en el diseño del proyecto. Los Resultados Inmediatos más importantes para alcanzar los estados intermedios en la Teoría del Cambio, se lograron completamente.	S
<i>3. Probabilidad de impacto</i>	El proyecto tuvo éxito en alcanzar sus Resultados a Mediano Plazo (Objetivos Específicos) en la medida de sus posibilidades, dados los desafíos enfrentados a la hora de lograr un sistema de bioseguridad "en funcionamiento" cuando las decisiones que esto implicaba estaban fuera del dominio del proyecto. Esto significa que la mayoría de los estados intermedios se lograron parcialmente y que el proyecto está en buen pie para lograr el impacto deseado.	P
E. Gestión Financiera		S
<i>1. Integridad de la información financiera del proyecto.</i>	El presupuesto del proyecto estaba disponible por fuentes de financiamiento y por componente, al igual que los nuevos presupuestos y las extensiones sin costo. Existían pruebas de los desembolsos de fondos (Asesoramiento de Remesas) realizados por ONU Medio Ambiente como la Agencia Implementadora, y estaban disponible los informes trimestrales de gastos, auditorías anuales y respuestas de la administración, e informes de cofinanciamiento /contribuciones en especie.	S

Criterio	Resumen de la Evaluación	Calific.
<i>2. Comunicación entre el personal de finanzas y de administración del proyecto.</i>	Ambos oficiales de las agencias de ejecución e implementación tenían un buen conocimiento de la situación financiera del proyecto, y contaban con mecanismos para garantizar que los desembolsos se hicieran contra los informes de progreso técnico y financiero aprobados. También hubo evidencia de que el Oficial de Gestión Financiera (ONU Medio Ambiente) fue proactiva en resolver asuntos financieros y en el apoyo a las revisiones presupuestarias. Los informes financieros eran revisados tanto por el personal de finanzas como técnico antes de su presentación.	S
F. Eficiencia	Para la Eficiencia, la costo-efectividad se califica como "satisfactoria", mientras que la puntualidad (cumplimiento de plazos) se presenta como "moderadamente insatisfactoria", lo que deja a "moderadamente satisfactorio" como calificación promedio. El proyecto tuvo dos extensiones sin costo de un año y uno de dos años, en comparación con el marco de resultados aprobado oficialmente. Las actividades del proyecto generalmente se secuenciaban de manera eficiente y se aplicaron también enfoques de costo-efectividad para lograr sinergias y mayor sostenibilidad del MNB.	MS
G. Monitoreo y Reporte		MS
<i>1. Diseño y presupuesto de monitoreo</i>	Se desarrolló un Plan de Monitoreo y Evaluación exhaustivo, que contenía objetivos e indicadores claros, y aseguraba la inclusión de revisiones / evaluaciones de medio término y término final. Se observaron inconsistencias en la forma en que se elaboraron los informes de los proyectos, en función de las deficiencias en el diseño del proyecto, las que, es importante señalar, no parecen haber desviado la implementación del proyecto.	MS
<i>2. Monitoreo de la implementación del proyecto</i>	El monitoreo de la implementación del proyecto se realizó en los marcos de tiempo establecidos, pero éste no se usó en su máximo potencial. Se hizo mucho hincapié en la Gestión de los Riesgos del Proyecto y menos en hacer un mejor uso de los mecanismos de monitoreo y retroalimentación del proyecto, así como oportunidades para afinar su diseño. Se encontró que el Comité Directivo en especial tuvo un débil papel de supervisión, aunque sí un valioso rol técnico.	MS
<i>3. Informes de proyectos</i>	Los informes se completaron en su mayoría, con la ayuda del sistema ANUBIS, aunque se requirió de una curva de aprendizaje para usar este sistema y los registros del proyecto fueron afectados por un error del sistema. Se notaron inconsistencias en los informes del proyecto, en su mayoría derivados de deficiencias en el diseño del proyecto (distintas versiones del plan de trabajo, ausencia de Productos en el proyecto aprobado). Hubo evidencia de una sustantiva colaboración y comunicación entre el equipo del proyecto y el personal de ONU Medio Ambiente. Los informes, sin embargo, no contenían datos desglosados por grupos vulnerables / marginados o por género.	MS
H. Sostenibilidad *		P
<i>1. Sostenibilidad sociopolítica</i>	La sostenibilidad de los resultados del proyecto depende en cierta medida de factores sociales y políticos; hoy existe una fuerte apropiación, interés y compromiso con el MNB entre el gobierno y otras partes interesadas, incluido en niveles de toma de decisiones, a pesar de que esta apropiación puede variar en función del cambio de gobierno programado para junio de 2019. La aprobación de la Política Nacional para Biotecnología y Bioseguridad sirve para amortiguar cambios eventuales en el contexto social / político.	P

Criterio	Resumen de la Evaluación	Calific.
<i>2. Sostenibilidad financiera</i>	Mantener los resultados del proyecto depende medianamente de que haya flujos financieros continuos, una buena parte de los cuales se derivarán de la aplicación de la Ley de Medio Ambiente y otras regulaciones sectoriales.	P
<i>3. Sostenibilidad institucional</i>	Los resultados del proyecto muestran que su dependencia del apoyo institucional es moderada. La aprobación de la Política Nacional, la adopción de instrumentos regulatorios, la integración de la seguridad de la biotecnología en la agenda de seguridad alimentaria y por parte del sector educativo, el aumento en la capacidad humana y el apoyo de personas relevantes (incluidos miembros del sector judicial) proporcionan medios sólidos para mantener y apoyar la institucionalización de los resultados inmediatos del proyecto, incluso si algunos aún necesitan entrar en implementación.	AP
I. Factores que Afectan el Desempeño		S
<i>1. Preparación y anticipación</i>	La evidencia apunta que, al arranque del proyecto: se llevó a cabo y se informó sobre una reunión de inicio integral; se revisó el plan de trabajo anual que se desarrolló con suficiente detalle (aunque sin costos); se estableció el Comité Directivo (Steering Committee) con una amplia representación, aunque incompleta; se confirmó la capacidad y el apoyo de los socios; se realizó la contratación de personal de manera oportuna; se establecieron acuerdos de gobernanza; se adoptaron las recomendaciones del PRC; y se tuvo un período de 6 meses entre la aprobación del proyecto y el primer desembolso.	MS
<i>2. Calidad de la gestión y supervisión del proyecto</i>	La evidencia muestra que se estableció un Comité Directivo (Comité Interinstitucional de Bioseguridad) y que funcionó relativamente bien; que los equipos de ejecución del proyecto estaban funcionando (aunque hubiera sido deseable una mayor participación de la alta gerencia); que se estableció una buena relación de trabajo entre el equipo del proyecto y el "Task Manager" de ONU Medio Ambiente, el Oficial de Gestión Financiera y el Asistente de Programas; la rotación del personal estuvo a veces acompañada por procesos transparentes de entrega e intercambio de información; la mayoría del personal del proyecto tenía capacidades alineadas con los requisitos del proyecto y estaban ubicados adecuadamente para la ejecución; ONU Medio Ambiente, como Agencia Implementadora, y el MARN como Agencia Ejecutora, brindaron suficiente liderazgo para lograr los resultados planificados y utilizaron la gestión adaptativa para responder a los desafíos de la ejecución y los cambios contextuales.	MS
<i>3. Participación y cooperación de las partes interesadas</i>	La evidencia sugiere que se realizó un buen análisis de las partes interesadas; que el equipo del proyecto hizo esfuerzos significativos para promover la apropiación de los grupos interesados; que las consultas y/o comunicaciones con las partes interesadas fueron altamente efectivas con algunos grupos, pero pobres con otros; que se logró una buena colaboración e intercambios constructivos con algunos grupos de interés; y que se tomó nota de los impactos ambientales, sociales y económicos de la bioseguridad en los grupos marginados.	MS
<i>4. Sensibilidad a temas de derechos humanos y equidad de género</i>	El proyecto responde a los derechos humanos en la medida en que la implementación del Protocolo de Cartagena a través de un MNB es un medio para defender el derecho a un ambiente saludable y para reducir los riesgos a la salud humana. El proyecto no incorpora la igualdad de género a través del uso de datos desagregados, en parte porque esto	MS

Criterio	Resumen de la Evaluación	Calific.
	no era obligatorio en los formatos ProDoc, pero reconoce a los grupos de mujeres como partes interesadas clave para la implementación del MNB.	
5. Apropiación del país y motivación	La evidencia sugiere que todos los ministerios del gobierno / entidades del sector público que son esenciales para avanzar de los Productos a los Resultados Inmediatos y a los estados Intermedios asumieron un papel de liderazgo en: brindar cofinanciamiento en especie al proyecto; guiar estratégicamente la ejecución del proyecto; endosar / aceptar resultados del proyecto; e impulsar el cambio para lograr resultados de mayor nivel.	S
6. Comunicación y concientización	La evidencia muestra cómo las audiencias clave se han dado cuenta de los mensajes principales del proyecto; cómo las actividades y canales de comunicación consideraban la audiencia a la cual se dirigían, fueron frecuentes durante la vida del proyecto y fueron presupuestados adecuadamente; cómo se han utilizado las tecnologías en línea (web) para facilitar la comunicación y la gestión de la información; y cómo los esfuerzos de concientización pública han sido en general efectivos para impulsar cambios hacia resultados más allá de los Productos. Hubo intercambios de experiencias entre los Coordinadores de los proyectos de MNB de la región y con expertos internacionales que contribuyeron al desarrollo de capacidades y al intercambio de información.	S
Overall Project Rating		S

* La calificación general para Sostenibilidad es la calificación más baja entre las tres subcategorías

Calificaciones:

AS = Altamente Satisfactorio

S = Satisfactorio

MS = Moderadamente Satisfactorio

MD = Moderadamente Desfavorable

P = Probable

AP = Altamente Probable

1. Introduction

25. The medium-sized project "*Contributing to the Safe Use of Biotechnology in El Salvador*" was executed by the Ministry of Environment and Natural Resources (MARN), with funding from the Global Environment Facility (GEF) and oversight by the United Nations Environment Programme (UN Environment) as the GEF Implementing Agency. Some key dates are:

- Project Concept (and Project Preparation Grant) approved by the GEF: July 2008
- Project proposal clearance by UN Environment's Project Review Committee: December 2009
- Project proposal approved by the GEF: 3 June 2010
- Project document internalized by UN Environment: 30 November 2010
- Project execution commenced: December 2010
- Project's Mid-Term Review: late 2012 /early 2013
- Project finalized all activities (project completion): April 2018.

26. The project was intended as a 4-year effort but took 7.5 years (88 months) to complete. Its original budget was for 1,925,000 USD, of which 900,000 USD was GEF funding and 1,025,000 USD was in kind co-financing. In addition to MARN, the co-financing institutions were the Ministry of Health (MINSAL), the Ministry of Agriculture and Livestock (MAG) and three private sector organizations (a foundation, a chamber and an association, all linked to the agricultural sector). Co-financing was expected to be distributed 75% government and 25% private sector. Upon project completion, total expenditures amounted to 2,498,607.94 USD, with 900,000.00 USD corresponding to GEF financing and 1,622,549.27 USD to co-financing.

27. The project was of national coverage, working with central government, in particular with MARN and other sectors with an interest in biotechnology and biosafety. Its purpose was to enable El Salvador to complete and implement its National Biosafety Framework (NBF), a task which had benefitted from prior efforts. El Salvador had participated in two earlier UN Environment-GEF global biosafety projects: the "Development of a draft NBF" project between 2002 and 2006, and the Biosafety Clearing House (BCH) -phase I- project between 2007 and 2008.

28. The project was scheduled to undergo a Terminal Evaluation upon completion of activities. This evaluation initiated in September 2018, by which time most of the initial project execution structures were no longer in place. 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, the MARN as the project's executing agency, and other key project partners.

29. The main target audiences for the Terminal Evaluation are, on the one hand, UN Environment - in particular its GEF Task Managers and Programme Managers - and on the other hand, MARN - including technical staff and duty-bearers who either had a role in delivering or supervising the project, or are responsible for biosafety within the Ministry. Another target audience is the intended

users of project Outputs and key project stakeholders, in particular those represented in the project's Steering Committee, commonly referred to as the Inter-institutional Biosafety Committee. The Steering Committee is an ample multi-sectoral *ad hoc* committee comprising representatives mostly from government, the academia/scientific community and the judicial sector that functioned since the first NBF Development initiative.

1.1 Evaluation Methods

1.1.1 TOC at Evaluation

30. The project was approved prior to UN Environment's requisite use of the Theory of Change (TOC) in project design. The project's intervention logic is therefore presented in the form of a Logical Results Framework (logframe). To present all the elements expected in a TOC, the **project goal** and intended **impact** had to be proposed and **assumptions** and **drivers** inferred.

31. Notably, **Outputs** (products, goods and services useful to project beneficiaries and required to generate results) were lacking in the project logframe and had to be derived from the activities workplan and mid-point and end-of-project targets contained in the project's Monitoring and Evaluation Plan. Some Outputs were streamlined to eliminate redundancies and clarify scope; others were filtered out when found to be unfeasible /unrealistic, not fundamental for achieving Immediate Outcomes, or had not been taken up in project workplans.

32. Project **Outcomes** (referred to as **Immediate Outcomes** in the TOC) were clearly expressed, so only minor edits were introduced into the 17 original Outcomes. A small degree of overlap was noted between Immediate Outcomes, especially with and within components 3 and 4, but could be compensated by refining Outputs instead. Some Immediate Outcomes were worded in a way that depicted a higher "state of change" than others; hence, in the reconstructed TOC, Immediate Outcomes were separated on two levels with some Immediate Outcomes being closer to the Medium-term Outcomes. These nuances can be viewed fully in the detailed (unedited) TOC at Evaluation presented in **Annex 1**.

33. The table below shows how the TOC was reconstructed using a mix of existing and proposed elements, and which were consulted with either project team members or stakeholders to arrive at the "TOC at Evaluation". Section 3.1 shows a comparison between the original results framework with the revised version being used in the evaluation process ("TOC at Evaluation").

Elements available from Logframe + M&E Plan		Elements presented in the reconstructed TOC	Consulted /validated for "TOC at Evaluation"
		Expected impact (proposed)	X
		Project goal (proposed)	X
General objective	→	Intermediate state	X (no change)
Specific Objectives	→	Medium-term Outcomes	X (no change)
Outcomes	=	Immediate Outcomes	✓ (2 minor changes)
Indicators	=	Indicators (revised)	✓
Project Targets	→	Outputs (proposed)	✓
		Drivers (proposed)	✓

	Assumptions (proposed)	✓
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Table 3. Elements used to construct and validate the Theory of Change (TOC).

1.1.2 Data collection and analysis

34. The evaluation combines quantitative and qualitative techniques, in order to arrive at a more comprehensive understanding of the project's accomplishments and learnings. The evaluation process is iterative, using rounds of data collection and analysis to distil findings from the more general down to the more specific, identify priorities for further inquiry and extract lessons learnt. Generally, evaluation methods comprised the following:

- Direct consultation with key persons involved in project execution, both in El Salvador and in UN Environment, and with key project stakeholders and beneficiaries.
- Close examination and cross-referencing of project documentation (reports and outputs) to analyse project achievements, check for consistency, fill gaps, and identify key issues. Most documentation was available on ANUBIS, an on-line project management system used by UN Environment for its global GEF biosafety portfolio.
- Use of UN Environment evaluation criteria, Key Strategic Evaluation Questions (see below) and an evaluation framework from which a questionnaire and semi-structured interview questions were derived.

35. The first stage of data collection entailed desk-top analyses of archived project documentation and telephonic /Skype interviews with current or ex- staff at UN Environment and MARN who either hold or held responsibility for the project. After this, an Inception Report was generated (October 2018). Further data was then collected through: written and verbal contacts with project stakeholders and project team members (by email, telephone and skype); internet searches; exchanges to obtain additional documents and information, and seek clarifications; a country visit that took place from 5 to 9 November 2018 for in-person interviews; and the circulation of a questionnaire. The full list of documents consulted is provided in **Annex 2**.

36. Prior to the country visit in Nov., contact was established (through MARN) with Steering Committee members and other key persons. Some challenges were faced in achieving and maintaining the desired level of engagement, especially with groups not represented on the Steering Committee (namely, NGOs and private sector associations). To counter this, assistance was solicited from specific stakeholders with a high interest in the evaluation and/or with the required contacts. The evaluation dates were also a minor handicap, as the end of the calendar year is always a period of high demand that can limit response capacities.

37. The views of under-represented groups (organizations with marginal participation in the project) were assessed through interviews but included few representatives. The evaluator's objectivity and neutrality were important when approaching these groups. The extent to which the project was gender-sensitive was also gauged through interviews and project reports.

38. A total of 37 persons were contacted from a balanced list of men and women; responses were received from 28 people (71% contact success rate). Of these, 14 were men, 14 were women. The questionnaire was distributed in Spanish, tailored to the following groups: 1. *Government*

stakeholders, 2. Non-government stakeholders, 3. Project team members, 4. UN Environment staff. The questionnaire was sent to 24 people, with a response rate of 71%. The full list of interviewees and respondents is provided in **Annex 3**.

39. To ensure ethical correctness, confidentiality has been protected by not naming sources and collating all data, rather than individualizing it. This measure was explained to all interviewees who agreed to participate in the evaluation and/or respond the questionnaire. The purpose, relevance, timeline and next steps of the evaluation were also explained to all interviewees. Therefore, participation in the process was voluntary, informed and consented.

40. Interview responses were analysed thematically (based on specific evaluation criteria) and as a means to verify and explain certain questionnaire responses. Knowing that time could prove a limitation, strategic questions were selected a priori from a comprehensive list of semi-structured interview questions, to ensure at minimum responses on the most critical elements. When deciding to pursue more in-depth interviews and/or apply the questionnaire, priority was given to Steering Committee members as well as institutional representatives². In as far as possible, efforts were made to ensure a minimum of 2 interviewees per sector (government, academia, NGO/private sector, judicial system).

41. Stakeholder representativeness in the evaluation is limited by the few sectors represented on the Steering Committee (government, academia and judicial sector) and the low number of representatives (from these and other additional sectors) that took part. Some degree of bias was therefore unavoidable, given the concentration of interviewees /respondents from the academic sector and the government's agricultural entities. A further limitation was the time elapsed between project start and completion, as participants were required to exercise their memory in order to recall project details.

42. The questionnaire's design enabled respondents to provide a rapid, personal appraisal, using either "yes /no" answers or a rating system to express the extent to which they believed the project complied with specific evaluation criteria: 1 = to a very low extent, 2 = to a low extent, 3 = more or less, 4 = to a high extent, 5 = to a very high extent. There was also the option of a no-response ("I do not have sufficient elements to respond") and of adding comments. Questionnaire findings were triangulated with the desk review and interview responses, and were used to determine whether respondents were satisfied with the project's achievements or prospects (ratings >3) or whether the opposite was true (ratings <3), and the extent to which respondents concurred in their answers.

43. The evaluation was guided by the following four Key Strategic Evaluation Questions:

- A. To what extent has the project enabled El Salvador to establish of a fully functional and responsive National Biosafety Framework that can address possible risks to national and regional biodiversity from unregulated exposure to LMOs?

² This means that a few persons, who participated in the project from personal interest or as specific service providers, only underwent a single interview round and were not questionnaire recipients.

- B. To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for the effective implementation of the National Policy on Biotechnology and Biosafety?
- C. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries / Authorities?
- D. 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?

2. The Project

2.1 Context

44. The protection of biological diversity is a priority for El Salvador. In spite of its small land mass, high population density and notorious levels of ecosystem degradation, the country still possesses an ample range of biological diversity, and genetic resources important to agriculture and food. Among the potential threats to biodiversity are those associated with the introduction into the environment or productive systems, of Living Modified Organisms (LMOs) without due evaluation or management processes. The introduction of genetically modified seeds could affect local crop varieties, through the involuntary dispersion of either pollen or seeds to neighbouring cultivated areas, especially if introduced by smallholder farmers who are not familiar with the biosafety measures required before and after harvest.

45. Other threats associated with biotechnology relate to the misconceptions that exist about its applications, even in politicians, lawyers and other professionals involved in the management of natural resources. The first generation of LMOs provoked much controversy and many myths over the dangers of genetically modified foods were spread through information campaigns, turning it into a “taboo” subject. The possible diversification and capitalization of other biotechnological applications (e.g. pharmaceutical products) was being overlooked, as the aversion to LMOs extended to biotechnology as a whole, and by association, to biosafety as well. If El Salvador was to benefit in any way from modern biotechnology, it first needed to overcome the bias and mistrust with which these issues were viewed across many sectors of society.

46. Further threats existed from having an incomplete framework or inoperative system and insufficient knowledge for managing LMOs, once cleared for use. It was felt that the limited technical capacity of the institutions involved in decision making processes was a threat to biosafety implementation, as was the bureaucratic and unclear administrative procedures that existed in MARN. Procedural clarity was lacking given that regulations were also incomplete. MARN had adopted a “Special Regulation for the Safe Use of Genetically Modified Organisms” in 2008, and received that same year a first set of LMO applications for carrying out field tests with genetically modified maize, presented by an alliance between private companies and the MAG’s National Centre for Agricultural Technology (CENTA). These field trials were approved, through an onerous technical and administrative process that offered learning opportunities for MARN but left much room for improvement.

47. For countries such as El Salvador, which possess unrealized biological richness, multilateral environmental agreements such as the Convention on Biological Diversity and the Cartagena Protocol on Biosafety (CP or CPB) acquire great relevance, since they establish parameters which can significantly contribute to a more responsible economic and social development. It was with this intention that El Salvador signed the CPB and then ratified it in 2003. The country had already executed the first NBF Development and BCH projects, which produced a draft “National Policy for Biotechnology and Biosafety”, and the initial drafts of the “Special Regulation” that was later adopted, derived from the biosafety provisions of El Salvador’s Environment Law.

48. Further GEF support in biosafety was considered necessary, given that El Salvador’s pioneer biosafety regulation was considered incipient, incomplete or overlapping. Biosafety coordination

was a difficult task, as there was no sole entity in charge of all aspects of biosafety. Biosafety implementation was also weakened by the lack of ear-marked funds for biosafety, the limited technical, human and infrastructural capacity of the institutions involved in decision-making. This promoted the request for an NBF Implementation project, which was granted in 2010, after a new government had come into office (2009) with an ideology that differed strongly from that of the previous government, and which meant that the project initiated in a political climate that had changed considerably from when the project had been designed.

2.2 Objectives and Components

49. The general objective of this project is to consolidate and implement an operational system for the safe use of biotechnology in El Salvador, in agreement with national priorities and international obligations, and to achieve direct influence over the care of the environment through more efficient operations of modern biotechnology. To achieve this, the project is structured into five components, each responding to a specific objective. The project's Specific Objectives are to:

- I. Contribute to integrate a biosafety policy in the national plans and strategies for sustainable development of El Salvador;
- II. Establish and consolidate a functional regulatory framework that will adjust to national needs and priorities, and is in agreement with the dispositions of the CPB;
- III. Establish and consolidate a functional system to process requests, assess risk and take decisions, and which will facilitate the corresponding administrative tasks;
- IV. Establish a functional system of surveillance, monitoring, and follow-up of LMO releases and their possible impacts on the environment, that is ready to be applied when approved LMOs need to be monitored; and
- V. Conduct targeted efforts for the creation and execution of a system to increase awareness, education, and participation in biosafety, and to facilitate the access of Salvadoran society to information on LMOs.

50. In order to achieve these Specific Objectives, the project needed to deliver 17 Immediate Outcomes that would account for all the elements of a *functional biosafety system* built around five main pillars. This entailed: new policies that would enable biotechnology and biosafety to be supported by, and integrated into, new sectors and would facilitate a more unified implementation of the CPB; sectoral regulations and instruments that would cover all aspects of the CPB and allow for regulatory efficiency; a transparent administrative and decision-making system to handle LMO applications, risk assessments and information management; a functional system that would standardize monitoring, auditing and follow-up tasks for approved LMOs and would involve the private sector and scientific community; and on-line systems, research, partnerships and participation mechanisms that would promote education, public participation and information availability in biosafety. The project's expected Outputs (formulated as part of the TOC at Evaluation), Immediate Outcomes, Medium-term Outcomes and Intermediate State are shown in section 3.

2.3 Stakeholders

51. The project expects different stakeholder groups to play differential roles in bringing about the changes needed to consolidate the NBF. The main stakeholder groups in the project are:

- Government agencies, namely those responsible for environment, agricultural and livestock production, public health, education, science and technology, consumer protection, food and nutritional safety, and customs.
- Agricultural and agro-industrial sector, with a potential or real interest in using products of modern biotechnology, represented by private sector chambers or associations.
- Private foundations active in the fields of agro-biotechnological research, development and innovation.
- Academia represented by public and private universities.
- Judicial and Legislative powers.
- International /regional organizations with experience in biotechnology and biosafety issues.

52. The project also identifies the Scientific Committee for Biosafety as an additional stakeholder. This Committee is described in Article 4 of the Special Regulation as a multi-sectoral consultative structure that brings together governmental (MARN, MAG and MINSAL), private sector and academic actors to advise MARN on LMO requests. It is intended to support all activities that involve taking decisions on LMO requests, as much for this project as for NBF implementation in general.

2.3.1 **Government stakeholders:**

53. Of all stakeholders, by far the most strategic for achieving the project's Immediate Outcomes are Government agencies, in particular those considered to be National Competent Authorities (NCAs), namely: MARN, MAG, MINSAL and on occasions, the Ministry of Education (MINED). As the CPB Focal Point and coordinator of both the NBF and the project, MARN carries more responsibility than the other Ministries. Nevertheless, the ProDoc does assign specific responsibilities to the *legal departments* of each government institution, clearly indicating their involvement in regulatory tasks (Comp. 2), training sessions and institutional committees for biosafety.

54. Other governmental actors are also important for generating "the best scenario for integral decision making in biosafety". Of those named, the National Council for Science and Technology (CONACYT) is expected to contribute to regulatory, information management, dissemination, and educational change processes (Comp. 2 and 5), while Consumer Defence (a dependency of the Ministry of Economy) is expected to support the project's surveillance, follow up and monitoring tasks (Comp. 4) as well as become an ally to the project by disseminating information about the advantages of a trustworthy NBF "for the consumer".

55. Even if specific roles are not described for the main Ministries, the inclusion of numerous targets involving MARN, MAG, MINSAL and MINED attests to their importance in delivering project

results. In addition to taking decisions on at least one LMO application, these Ministries are expected to be key players in driving change under all 5 project components, as follows:

- i. Driving policy processes and institutional strengthening for biosafety mainstreaming;
- ii. Adopting biosafety regulations and developing regulatory instruments;
- iii. Configuring the decision-making system and its administrative framework and information management requirements, while facilitating staff trainings - particularly in biosafety risk assessment (except for MINED);
- iv. Setting up capacities for LMO monitoring and surveillance involving biosafety audits, laboratory equipment and alliances with the private sector / scientific community; and
- v. Promoting the nBCH, facilitating public consultation trainings, and in the case of MINED, seeking support and approving a strategy for promoting education in biotechnology and biosafety.

2.3.2 *Non-Government stakeholders:*

56. The private sector is described as both an NBF user (therefore with an interest in having an operational NBF in place) and a capacity provider (a contributor to both project and NBF implementation). Amongst those specifically named are CAMAGRO³, APA⁴ and FIAGRO⁵, all of which are project co-financiers. All three are expected to contribute to policy formulation, and later on, to policy implementation (Comp. 1), while CAMAGRO and APA can also facilitate access to their members' installations (experimentation areas, greenhouses and laboratories) for hands-on training activities. FIAGRO's contribution would include public perception studies, feasibility studies for potential LMO projects, and assisting with educational activities (Comp. 5). These private actors are therefore viewed as collaborators who will support policy processes and put their know-how, information and networks at the project's disposal.

57. Interestingly, farmers' groups or local agricultural producers are not represented by the associations or foundations named above, nor are they catalogued as private sector stakeholders. Instead, the project links them to Non-Governmental Organizations (NGOs) involved in environmental /rural development and considers them incipient NBF users yet important project beneficiaries. They are expected to evolve from an initially passive role of "receiving information and gaining an understanding" to an active one in which they facilitate "the transfer of information, skills, equipment, regulatory frameworks and procedures to small and medium rural producers". Notably, environmentalist NGOs, known for their disapproval of biotechnology applications, are invisible in the ProDoc, making NGOs in general an under-represented stakeholder group.

58. The participation of the academic sector is well described and refers to universities and research centres supporting the project's technical and scientific activities, especially under Comp. 4 and 5. This sector is recognized as a project beneficiary as well as potential contributor to

³ El Salvador's Agricultural and Agro-industrial Chamber

⁴ Association of Agro-industrial Suppliers

⁵ Foundation for Technological Innovation in Agriculture

capacity-building efforts, and to NBF implementation in general, even if it is noted that its capacities tend to be incipient or disconnected from the operational realities of biosafety. An alliance with this sector is considered strategic, given that academic stakeholders are key agents of change under Comp. 4 and 5. Their expected role entails supporting the mainstreaming of biosafety into El Salvador's education and research agendas, thus helping to improve NBF implementation in the long-term.

59. The project names a number of international /regional institutions present in El Salvador that are either part of the UN system, the Central American Integration System or inter-American entities. In view of their experience with biosafety in the Latin American region, the project intends to actively seek synergies and collaborations, calling upon these agencies to contribute to the NBF and to the exchange of experiences, information and training activities. Of those named, the protagonist is the Inter-American Institute for Agricultural Collaboration (IICA) and its hemispheric programme in biosafety that could provide specialist advice and inputs to Comp. 1, 2 and 3. Establishing these working relationships is considered a strategic means to provide sustenance (and sustainability) to El Salvador's NBF.

60. The Judicial and Legislative powers⁶ are also listed as project stakeholders, mostly as beneficiaries of training and information and with a role to play in analysing "different special procedural and normative proposals". Their interest in biosafety would stem from the Executive developing new biosafety regulations or promoting the accession /adherence to the Nagoya-Kuala Lumpur supplementary Protocol on liability and redress (Comp. 2) and from the need to enforce biosafety regulations in the case of purported environmental damages from LMO releases (Comp. 2 and 4). This stakeholder group is not often involved in NBF Implementation projects, making El Salvador's case a positive example.

61. The table below (Johari window) summarizes the expected or inferred level of interest/influence of stakeholder groups over the project's Immediate Outcomes.

Meet their needs = High power + low interest	Key players = High power + high interest
	<ul style="list-style-type: none"> MARN, MAG, MINSAL, MINED. Private foundations (e.g. FIAGRO) Agri-business sector (CAMAGRO, APA) and potential LMO users
Least important = Low power + low interest	Show consideration = Low power + high interest
<ul style="list-style-type: none"> Legislative Assembly Farmer's groups and associations 	<ul style="list-style-type: none"> Universities Supreme Court of Justice International /regional organizations (such as FAO, IICA)

Table 4. Johari window showing the expected influence /interest of project stakeholders over the project's Immediate Outcomes.

⁶ Represented by the Supreme Court of Justice, and by members of the Committees for Environment, Agriculture and Trade, and Education, respectively

2.3.3 Human rights and Gender:

62. While human rights and gender equality language is not used in the ProDoc (except to affirm that the Government recognized *health* as a fundamental and constitutional human right), by being a Party to the CPB, El Salvador is acknowledging the need to protect human health in addition to providing for a healthy environment. Being a CPB Party reaffirms the right to have access to information on LMOs and to decide on their import, export and internal use, prior to their first transboundary movement. It also implies that the country would consider its accession /adherence to the Nagoya-Kuala Lumpur supplementary Protocol which specifically tackles liability and redress in biosafety, and seeks to ensure that response measures are taken should any adverse effect be observed on the conservation and sustainable use of biological diversity, taking also into account risks to human health. These considerations account for the project's human rights dimension.

63. With regards to gender equality, the ProDoc makes a general statement regarding the need to consider women producers and women from local communities as important stakeholders for the NBF itself: "As they play a crucial role in agriculture, mainly in subsistence agriculture, women producers must be informed in relation to biotechnology/LMOs and biosafety issues". The project anticipates that once the NBF is implemented, "the impact of introducing LMOs could be gender-differentiated because men and women have different knowledge, needs and vulnerabilities". It expresses that if women producers "decide to use LMOs, they should be properly informed and trained in how to handle them, so the potential risks to their health and their environment are minimized". The project likely goes no further into mainstreaming gender equality, as currently required by UN Environment⁷ and GEF policies⁸, given that at the time of project design, neither the GEF project template nor UN environment's ProDoc format contained a specific gender section, nor specifically required gender-disaggregated data.

2.4 Project implementation structure and partners

64. MARN was the project's Executing Agency, supported by the Inter-institutional Biosafety Committee as the project's Steering Committee. This ample multi-sectoral *ad hoc* group originated with the first NBF Development initiative and comprised representatives from government, academia/scientific community and the judicial system; in early years it included a private sector representative too. In the current project, the committee was convoked regularly until 2014, when the project's management changed. Ad hoc working groups were also convoked to cover specific topics or review specific Outputs.

65. Project implementation was driven by a small staff, working as a core unit from within MARN, consisting in a National Project Coordinator (NPC), a Project Assistant and a MARN senior manager who would act as the Project Director. This core group was on occasion assisted by other MARN personnel and often by consultants undertaking specific technical, procedural and legal assignments. Project execution structures are shown in **Figure 1**, below.

⁷ <https://www.unsystem.org/content/ceb-policy-statement-un-system-wide-policy-gender-equality-and-empowerment-women-27-october>

⁸ <https://www.thegef.org/council-meeting-documents/policy-gender-equality>

66. UN Environment, as the GEF Implementing Agency, provided technical oversight and implementation support through the Task Manager and Programme Assistant, both based in Panama, and the Fund Management Officer based in Nairobi. Originally (at project design), it had been determined that the project's financial management would be outsourced (at a fee) to the national office of the United Nations Development Programme, but after project inception, this responsibility was returned to MARN by decision of the Environment Minister.

67. In addition to MARN, the ProDoc names the following co-financiers (which could mean they constitute project partners): MINSAL, MAG and three private sector entities: CAMAGRO, El Salvador's Agricultural and Agro-industrial Chamber; APA, Association of Agro-industrial Suppliers; and FIAGRO, Foundation for Technological Innovation in Agriculture. Although these "partners" were considered strategic for achieving the project's objectives, and specific collaborative tasks were ascribed to some, they bore no direct responsibilities in project delivery. For this reason, they are included in the implementation scheme above only in a supporting role.

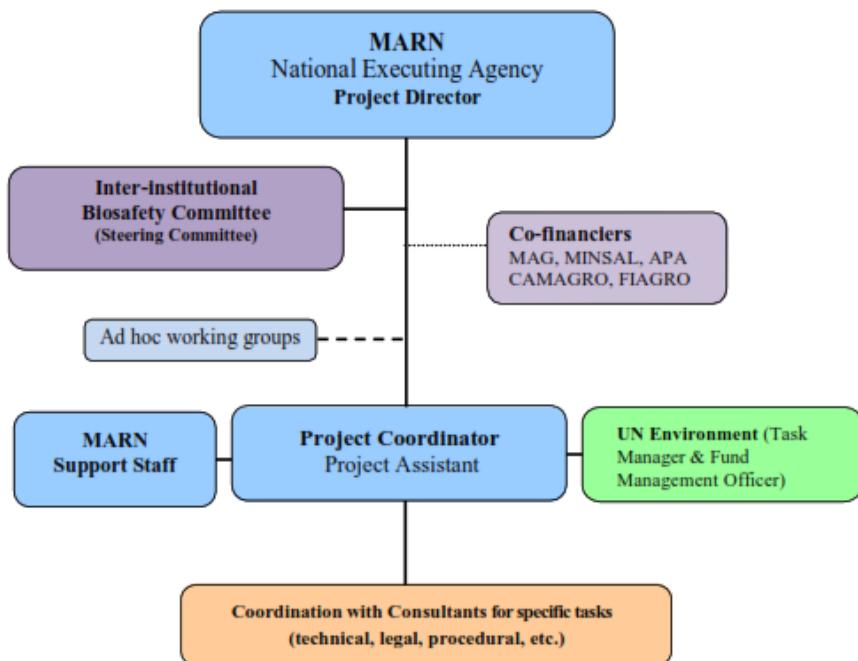


Figure 1. Project execution structures

2.5 Changes in design during implementation

68. There were several changes to the project's scope and parameters. Those that were internalized by means of formal revisions consisted in: (i) budget revisions (a total of 10), which do not alter overall financing but re-align the project budget with reported annual expenditures; and (ii) no-cost extensions (a total of 3), the first of which was granted in December 2014 when the project was due to finalize.

	Date in which no-cost extension was granted	New deadline for Technical completion	New deadline for Terminal Reporting
1 st no-cost extension	December 2014	December 2015	30 April 2016
2 nd no-cost extension	February 2016	31 October 2016	30 April 2017
3 rd no-cost extension	February 2017	31 August 2017	30 April 2018

Table 5. Changes in project timelines agreed through no-cost extensions.

69. Importantly, significant changes were made to the scope of the project's Immediate Outcomes that were not formally adopted or internalized as updates to the project's design. This refers in particular to Immediate Outcomes in which MAG, MINSAL, and in some cases MINED, were expected to act as National Competent Authorities for biosafety, in addition to MARN. Originally, the project sought to prepare harmonized sectoral regulations for these entities and to mainstream biosafety into their sectoral policies and overall management (e.g. monitoring and surveillance actions, information management, public participation mechanisms, etc.). However, it was decided early in the project that MARN would be the sole National Competent Authority for biosafety (notwithstanding that biosafety decisions would require inter-Ministerial coordination), and that improving the existing Special Regulation was sufficient and appropriate for managing LMOs, given that introducing LMOs into the country would raise first-and-foremost environmental concerns, also taking into account human and animal health.

70. In consequence, several of the project's targets that aimed to strengthen the regulatory mandates of other Ministries and their biosafety management capacities were no longer necessary, and the scope and relevance of specific Immediate Outcomes was reduced to only MARN. A notable example is the preparation of National /Special Regulations for the agricultural and health sectors, which was discarded in favour of modifications to the existing Special Regulation of MARN that would incorporate the other sectors as well as liability and redress issues (as per the CPB)⁹. Despite these shifts in project design, opportunities to officially revise the project's results framework, as well as streamline and harmonize annual workplans (activities), were not utilized and instead, internal decisions and adaptive management served as the basis for the adjustments made.

2.6 Project financing

71. The project budget presents a breakdown of both GEF funding and co-financing by project component, covering five technical components, and including project management and project Monitoring and Evaluation (M&E) as two additional components. The tables below show (i) the expected (planned) cost distribution across all project components, and (ii) the planned sources of co-financing as indicated in the ProDoc:

⁹ Source: interviews, Half-Yearly Progress Report 2014, PIR FY2015, Task Manager Mission Report Feb 2015

Project Components	GEF		Co-finance		Budget
	US\$	% of comp.	US\$	% of comp.	US\$
1 - Policy framework	62 981	35%	115 880	65%	178 861
2 - Regulatory framework	90 381	53%	80 880	47%	171 261
3 - Administrative framework /Decision-making	125 881	47%	140 880	53%	266 761
4 - Risk management	315 376	47%	355 880	53%	671 256
5 - Education, participation, information	164 381	41%	235 880	59%	400 261
Project Management	90 000	48%	95 600	52%	185 600
Project M&E	51 000	100%	0	0%	51 000
Total	900 000		1 025 000		1 925 000

Table 6. Expected cost distribution (GEF funds and co-finance) across project components

	GOVT	CAMAGRO	APA	FIAGRO
10 PROJECT PERSONNEL COMPONENT	102 100	17 000	10 000	5 000
20 SUB-CONTRACT COMPONENT	148 500	22 500	12 300	2 500
30 TRAINING COMPONENT	13 000	10 000	7 300	9 000
40 EQUIPMENT & PREMISES COMPONENT	471 468	15 188	15 188	15 088
50 MISCELLANEOUS COMPONENT	37 500	45 000	45 000	21 368
TOTAL COSTS	772 568	109 688	89 788	52 956

TOTAL CO-FINANCING (IN KIND): 1 025 000 USD

Table 7. Planned co-financing sources and contributions, by project component

72. The terms of reference of the Terminal Evaluation (**Annex 8**) required planned costs versus actual expenditures to be reported *by project component*. However, actual /final expenditures are not available by project component, as there was no requirement for MARN to report expenditures using this configuration. All financial reports were presented on the basis of UN Environment's budget lines and categories, using the reporting structure contained in ANUBIS. Instead, the table in **Annex 4** shows planned versus actual spend for each UN Environment budget category and items. The table below shows planned versus actual spend for co-financing sources.

Co financing (Type/ Source)	UN Environment own financing (US\$1,000)		Government (US\$1,000)		Private Sector* (US\$1,000)		NGOs and Academia** (US\$1,000)		Total (US\$1,000)		Total Disbursed (US\$1,000)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
- Grants											
- Loans											
- Credits											
- Equity investments											
- In-kind support	0	0	772.6	1,489.8	252.4	40.7	0	92.1	1,025	1,622.6	1,622.6
- Other											
Totals	0	0	772.6	1,489.8	252.4	40.7	0	92.1	1,025	1,622.6	1,622.6

* Private sector: CAMAGRO, APA and FIAGRO

** NGOs refers to international /regional organizations

Table 8. Planned versus actual spend for all co-financing sources

3. Theory of Change (TOC)

3.1 Reconstruction of the TOC at Evaluation

73. The overall logic of the project's design was found to be solid and clear. Much of what was being proposed was an extension of tasks initiated with the first NBF Development project and would thus build on prior achievements. By means of this new project, El Salvador aimed to complete its biosafety framework and make it operational and efficient. The exercise of reconstructing and reviewing the TOC served to reaffirm the project's vertical logic and determine that each pathway did consistently show how outputs could verifiably lead to changes in intermediate states, and onto an intended Impact.

74. In a nutshell, the main elements needed in order for the ***national biosafety framework to be complete, operational and efficient***, and have verifiable indicators to account for progress in their delivery, were: a **National Policy** for Biotechnology and Biosafety, various sectoral **regulatory instruments¹⁰** and their corresponding **administrative and management processes**, as well as **infrastructural and technical capacity**. With a complete framework in place, the National Competent Authorities responsible for biosafety would be able to take informed decisions on the use of LMOs, based on risk assessments, public consultations and the advice of scientific /technical committees. They would also ensure follow-up actions, as part of risk management, through auditing, LMO detection, surveillance and information management. For the latter, the online National Biosafety Clearing House (nBCH) would facilitate greater information consistency and transparency. Lastly, efforts would also be made to raise awareness and educate in biosafety.

75. The table below displays how the project's original logframe compares with the revised results framework being used in the evaluation process. The original contents of the logframe and Project Document is shown in the first column; the second column presents the refined results framework obtained through the TOC re-construction and review process ("TOC at Evaluation"); and the last column explains the adjustments made. The most notable adjustment relates to the Outputs, as these were lacking in the original logframe and had to be re-constructed based mostly on the project's mid-term and end-of-project Targets, corroborated against the list of activities from the project's workplan (revised at inception).

Table 9. Results framework comparison table (original logframe vs refined logframe)

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
	Long Term Impact: As part of its sustainable development, El Salvador reduces the potential risks to its people and biodiversity associated with commercial and research activities.	No intended impact is stated in the ProDoc.

¹⁰ The original project workplan contemplated the preparation of a draft General Law for the Safe Use of Biotechnology which features neither in the logframe nor the M&E Plan. As the General Law intermittently appears and disappears from annual workplans and project reports, and was not consistently followed through, it was not included as part of the reconstructed TOC.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
	Project Goal: El Salvador can take advantage of modern biotechnology, while ensuring an adequate level of protection to biodiversity and human health	No project goal is stated in the original logframe or ProDoc.
General Objective: To consolidate and implement an operational system for the safe use of biotechnology in El Salvador, in agreement with national priorities and international obligations.	Intermediate State: El Salvador has implemented and consolidated an operational system for the safe use of modern biotechnology, in agreement with national priorities and international obligations.	To achieve the project goal, and subsequently the intended impact, this intermediate state needs to occur, corresponding with the project's general objective.
Specific Objectives (SO) <ol style="list-style-type: none"> Contribute to integrate a biosafety policy in the national plans and strategies for sustainable development of El Salvador. Establish and consolidate a functional regulatory framework that will adjust to national needs and priorities, and is in agreement with the dispositions of the CP. 	Medium-term Outcomes <ol style="list-style-type: none"> El Salvador has integrated biosafety into national policies, plans and programmes. El Salvador has a functioning regulatory framework, in line with national needs and CP dispositions. 	To achieve the project goal, these five intermediate states need to occur. They correspond directly with the project's specific objectives (and component structure) and therefore reaffirm the project's main causal pathways. They also represent a change in capacity and behaviour at the institutional
3. Establish and consolidate a functional system to process requests, assess risk and take decisions, and which will facilitate the corresponding administrative tasks. 4. Establish a functional system of surveillance, monitoring, and follow-up of LMO releases and their possible impacts on the environment, that is ready to be applied when approved LMOs need to be monitored. 5. Conduct targeted efforts for the creation and execution of a System to increase awareness, education, and participation in biosafety, and to facilitate the access of Salvadoran society to information on LMOs.	3. El Salvador has a functioning administrative system for handling biosafety requests and decision-making, based on risk assessment and risk management. 4. El Salvador has a functioning system to monitor, inspect and follow-up on LMO releases, and comply with biosafety norms. 5. El Salvador applies mechanisms to increase awareness, education, participation and access to information on LMOs.	level, given that they speak to a functioning biosafety system that approves LMOs. The second intermediate state is a dominant results pathway; it underpins the sustainability of the intervention and is supported by other pathways.
Outcomes SO1: 1.1 1.1 A National Policy for Biotechnology and Biosafety is made official, disseminated and initiates implementation	Immediate Outcomes SO1: 1.1 1.1 A National Policy for Biotechnology and Biosafety is made official, disseminated and initiates implementation	No change
Outputs (1.1)	Outputs (1.1) 1.1.1 National Policy for Biotechnology and Biosafety validated and made official. 1.1.2 Dissemination of the National Policy	The Target that gave rise to Output 1.1.3 originally applied to MARN, MAG, MINSAL and MINED.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
	1.1.3 Technical units created or strengthened for biosafety (MARN)	A Target for the inclusion of biosafety in the next National Development Plan was not converted into an Output as it was not required in relation to the Outcome.
Indicators (1.1) The National Policy for Biotechnology and Biosafety is validated, adopted and initiated.	Indicators (1.1) <ul style="list-style-type: none"> # of public and non-public institutions that validate the National Policy for Biotechnology and Biosafety by project mid-point. Date in which the National Policy is approved or officially published. # of technical units created or strengthened for biosafety in government institutions. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO1: 1.2 1.2 CP implementation occurs in a guided and coordinated fashion.	Immediate Outcomes SO1: 1.2 1.2 CP implementation occurs in a unified fashion and with institutional support .	Some rewording is proposed (blue text). In demarcating the causal pathway, this Outcome was considered of a “higher order” than the others.
Outputs (1.2)	Outputs (1.2) <ul style="list-style-type: none"> 1.2.1 Project strategy to strengthen biosafety capacities, approved by multiple sectors. 1.2.2 Initial workplan for the project strategy. 1.2.3 Periodic sessions of the Inter-institutional Biosafety Committee to address biosafety capacity building and CP implementation. 	Outputs were derived from the project’s mid-term and end-of-project Targets.
Indicators (1.2) <ul style="list-style-type: none"> A National Strategy to Strengthen Biosafety Capacities (for CP implementation) is approved by consensus between the relevant sectors and initiates its implementation. Existing coordination is strengthened and serves to facilitate the exchange of biosafety information and positions between competent authorities and guide biosafety capacity building and CP application. 	Indicators (1.2) <ul style="list-style-type: none"> # of government entities, academic institutions, civil society groups and private sector entities that approve the project strategy to strengthen biosafety capacities by project mid-point. % completion of the actions in the project strategy. # of yearly sessions of the Inter-institutional Biosafety Committee to address biosafety capacity building and CP implementation. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO1: 1.3 1.3 The relevance and transversal nature of biosafety is accepted by several sectors	Immediate Outcomes SO1: 1.3 1.3 The relevance and transversal nature of biosafety is accepted by several sectors	No change

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Outputs (1.3)	Outputs (1.3) 1.3.1 Dissemination and high level consultations to promote the incorporation of biosafety into sectoral plans, programs and projects. 1.3.2 Sectoral policies and plans that incorporate biosafety (MAG, MARN, MINSAL, MINED)	Outputs were derived from the project's mid-term and end-of-project Targets. A Target referring to incorporation of biosafety into the National Development Plan was not included as an Output, as it was considered unnecessary for achieving the Immediate Outcome.
Indicators (1.3) The safe use and management of modern biotechnology is incorporated into the plans, programs and projects of relevant sectors	Indicators (1.3) # of sectoral policies and plans that incorporate biosafety by project mid-point.	The revised indicator is more measurable and time-bound and aligns with proposed Outputs as well as the original Targets.
Outcomes SO2: 2.1 2.1 The regulatory regime is completed to cover all areas of the CP and is made accessible to interested parties	Immediate Outcomes SO2: 2.1 2.1 The regulatory regime is completed to cover all areas of the CP and is made accessible to interested parties	No change
Outputs (2.1)	Outputs (2.1) 2.1.1 National /Special regulations validated by the Inter-institutional Biosafety Committee and officially published 2.1.2 Specific procedure or norm for LMOs in transit. 2.1.3 Dissemination of all regulations and availability for all relevant stakeholders	The drafting of a General Law, signalled in the original GEF-approved workplan but neither in the logframe nor in the M&E plan, was not included as an Output. Output 2.1.1 became unnecessary once its scope was reduced to only MARN.
Indicators (2.1) Specific biosafety regulations are formulated and made known to users and other relevant stakeholders.	Indicators (2.1) <ul style="list-style-type: none">• # of national /special regulations or norms formulated or adopted• # of national /special regulations or norms uploaded on the nBCH.	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well the original Targets.
Outcomes SO2: 2.2 2.2 The application of new regulations allows El Salvador to act efficiently in biosafety	Immediate Outcomes SO2: 2.2 2.2 The application of new regulatory instruments allows El Salvador to act efficiently in biosafety	Some rewording is proposed (blue text). In demarcating the causal pathway, this Outcome was considered of a "higher order" than the others.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Outputs (2.2)	<p>Outputs (2.2)</p> <p>2.2.1 Ministerial resolutions that define LMO management processes (MARN, MAG, MINSAL).</p> <p>2.2.2 Guidelines for applying biosafety regulations.</p> <p>2.2.3 Scientific Committee enabled to apply biosafety regulations and consider all LMO cases.</p> <p>2.2.4 Simplified procedures for handling LMO requests proposed (in accordance with art.13 of the CP).</p> <p>2.2.5 Staff trained on the application of biosafety regulations and LMO management processes.</p>	Outputs were derived from the project's mid-term and end-of-project Targets.
Indicators (2.2)	<p>Indicators (2.2)</p> <ul style="list-style-type: none"> # of Ministerial resolutions adopted that define LMO management processes, including LMOs in transit and simplified procedures in accordance with art.13 of the CP. # of user guidelines available, by project mid-point, for application of biosafety regulations. # of official documents that validate the Scientific Committee # of government staff trained in applying biosafety regulations and in LMO management processes. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO3: 3.1	Immediate Outcomes SO3: 3.1	No change
3.1 The clear definition of the functions and responsibilities of competent authorities allows El Salvador to handle any request for LMO use.	3.1 The clear definition of the functions and responsibilities of competent authorities allows El Salvador to handle any request for LMO use.	
Outputs (3.1)	<p>Outputs (3.1)</p> <p>3.1.1 Roles, responsibilities and coordination mechanisms defined for MARN, MAG and MINSAL, including follow-up actions.</p> <p>3.1.2 Flowcharts for biosafety decision-making in MARN, MAG and MINSAL.</p> <p>3.1.3 Technical and administrative staff from MARN, MAG and MINSAL trained to process and review LMO request, and coordinate follow-up actions.</p>	<p>Outputs were derived from the project's mid-term and end-of-project Targets.</p> <p>A Target referring to the Inter-institutional Biosafety Committee sessioning to consider an LMO request was not included as an Output, as it was considered unfeasible given the Committee's role.</p>

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Indicators (3.1) Competent authorities have roles and responsibilities clearly identified, and capacity to handle LMO requests and follow-up on decisions.	Indicators (3.1) <ul style="list-style-type: none"> # of government institutions that, by project mid-point, have agreed on their roles, responsibilities and coordination mechanisms (including follow-up actions). # of government institutions that, by project year 3, have flowcharts for biosafety decision-making. # of technical and administrative staff trained, by project year 3, to process and review LMO requests, and coordinate follow-up actions. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO3: 3.2 3.2 A functional administrative system is set up that is responsive to user needs	Immediate Outcomes SO3: 3.2 3.2 A functional administrative system is set up that is responsive to user needs	No change
Outputs (3.2)	Outputs (3.2) <p>3.2.1 Administrative steps defined for LMOs subject to transboundary movements (first-time and subsequent movements). (<i>linked to 3.4.1</i>)</p> <p>3.2.2 Operational provisions in place to handle confidential information (MARN).</p> <p>3.2.3 Responses to applicants on LMOs subject to first-time transboundary movements that follow the CP (art.7-11).</p> <p>3.2.4 LMO request forms available and revised to be more user-friendly.</p>	Outputs were derived from the project's mid-term and end-of-project Targets. The Target that gave rise to Output 3.2.2 originally applied to MARN, MAG, and MINSAL. It now only applies to MARN.
Indicators (3.2) <ul style="list-style-type: none"> Competent authorities have clear and functional administrative mechanisms that allow LMO applicants to obtain a response in line with Art. 7-11 of the CP. Competent authorities have established mechanisms to handle confidential information. Differential administrative steps are defined for locally developed LMOs, and for LMOs subject to intentional transboundary movements. 	Indicators (3.2) <ul style="list-style-type: none"> # of NCAs that have defined, by project mid-term, the administrative steps for LMOs subject to transboundary movements. # of provisions (legal and operational) in place to handle confidential information. # of responses to applicants for LMOs subject to first-time transboundary movements that manifest the notification, acknowledgement of receipt, and decision steps set forth in art.7-11 of the CP. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
	<ul style="list-style-type: none"> # of revisions made to LMO request forms to make them more user-friendly, based on feedback from at least 3 potential LMO users. 	
Outcomes SO3: 3.3 3.3 National capacity for risk assessment and risk management is increased	Immediate Outcomes SO3: 3.3 3.3 National capacity for risk assessment and risk management is increased	No change
Outputs (3.3)	<p>Outputs (3.3)</p> <p>3.3.1 A common methodology to evaluate LMO risks and determine risk management measures.</p> <p>3.3.2 At least 2 experts from MARN, 1 from MAG and 1 from MINSAL trained in biosafety risk analysis.</p> <p>3.3.3 Scientific Committee sessions to advise MARN on an LMO request after undertaking the risk assessment process.</p>	Outputs were derived from the project's mid-term and end-of-project Targets.
Indicators (3.3) Technical capacity (procedures and expertise) has been established and operates effectively in each of the competent authorities, for the evaluation and handling of LMO risks under different uses.	<p>Indicators (3.3)</p> <ul style="list-style-type: none"> # of formal documents that testify to the adoption by MARN, MAG and MINSAL of a common methodology to evaluate LMO risks and determine risk management measures. # of sessions of the Scientific Committee to carry out LMO risk assessments and advise MARN on LMO requests, by project year 3. # of experts from MARN, MAG and MINSAL trained in biosafety risk analysis. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO3: 3.4 3.4 Competent authorities have a decision-making system that is efficient, effective and transparent.	Immediate Outcomes SO3: 3.4 3.4 Competent authorities have a decision-making system that is efficient, effective and transparent.	No change In demarcating the causal pathway, this Outcome was considered of a "higher order" than the others.
Outputs (3.4)	<p>Outputs (3.4)</p> <p>3.4.1 Procedures for decision-making, in line with the CP. (<i>linked to 3.2.1</i>)</p> <p>3.4.2 Dissemination of the biosafety decision-making system</p> <p>3.4.3 At least 1 decision taken on LMO use</p>	Outputs were derived from the project's mid-term and end-of-project Targets.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Indicators (3.4) Decisions taken on national LMO use are based on a risk assessment, consider the opinion of external experts, integrate the rulings of relevant competent authorities, and take place according to schedule and in line with the CP.	Indicators (3.4) # of decisions taken on LMO use, by project year 3, that: i) are based on risk assessment, ii) consider the opinion of external experts, iii) integrate NCA rulings into an overall ruling, iv) follow a schedule, v) comply with art. 10 of the CP, and vi) if positive, state how the ruling applies to subsequent imports if the application is for first-time entry.	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO3: 3.5 3.5 A locally-run system to process, archive and exchange information is up and running (National BCH).	Immediate Outcomes SO3: 3.5 3.5 A locally-run system to process, archive and exchange information is up and running (National BCH).	No change
Outputs (3.5)	Outputs (3.5) 3.5.1 Procedures to validate the information to be published on the nBCH. 3.5.2 An operational nBCH with new information regularly uploaded (MARN). 3.5.3 A “single window” electronic system created to facilitate LMO applications.	The Targets that gave rise to Outputs 3.5.1 and 3.5.2 originally applied to MARN, MAG, MINSAL and MINED. Output 3.5.1 became unnecessary once its scope was reduced to only MARN
Indicators (3.5) • Biosafety information is regularly published on the National BCH. • LMO applicants can refer to the National BCH to present their requests.	Indicators (3.5) • # of times per year that new information is uploaded on the nBCH. • Date in which a “single window” electronic system is launched that facilitates LMO applications.	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 4.1 4.1 Monitoring and surveillance functions are facilitated to ensure regulatory compliance	Immediate Outcomes SO4: 4.1 4.1 Monitoring and surveillance functions are facilitated to ensure regulatory compliance	No change. In demarcating the causal pathway, this Outcome was considered of a “higher order” than the others.
Outputs (4.1)	Outputs (4.1) 4.1.1 Monitoring and Surveillance Protocols drafted for follow-up of approved LMOs (MARN). 4.1.2 Network created for follow-up and surveillance of approved LMOs, involving the private sector. 4.1.3 Biosafety decisions, audit results and other surveillance actions, uploaded onto the nBCH.	Outputs were derived from the project’s mid-term and end-of-project Targets. The Target that gave rise to Output 4.1.1 originally applied to MARN, MAG and MINSAL. Now it only applies to MARN.

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Indicators (4.1) <ul style="list-style-type: none"> Supervision, inspection and monitoring functions become part of institutional tasks to ensure compliance with biosafety regulations. The National BCH can be used as a tool for follow-up of approved LMOs. 	Indicators (4.1) <ul style="list-style-type: none"> # of departments that, by project year 3, have contributed to Monitoring and Surveillance Protocols for follow-up of approved LMOs. # of private sector institutions taking part in a follow-up and surveillance network for approved LMOs. # of inputs uploaded onto the nBCH that refer to follow-up of approved LMOs. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 4.2 4.2 Setting up an audit system for biosafety allows follow-up actions to be standardized	Immediate Outcomes SO4: 4.2 4.2 Setting up an audit system for biosafety allows follow-up actions to be standardized	No change
Outputs (4.2)	Outputs (4.2) <ul style="list-style-type: none"> 4.2.1 Agreement over which institution will oversee LMO testing (detection). 4.2.2 Procedures for biosafety auditing, with legal backing. 4.2.3 Biosafety audits incorporated into NCA work plans (MARN). 4.2.4 National laboratory(ies) equipped and mandated to carry out LMO testing. 4.2.5 Staff trained in LMO detection techniques. 	The Targets that gave rise to Outputs 4.2.2 and 4.2.3 originally applied to MARN, MAG and MINSAL, with 4.2.2 requiring agreements between NCAs. Now these Outputs only apply to MARN. A Target to have a list of national laboratories put forward for accreditation was not included as an Output, as it was considered unnecessary for achieving the Immediate Outcome.
Indicators (4.2) <ul style="list-style-type: none"> Biosafety audits become the principle mechanism by which competent authorities can follow-up on approved LMOs. There is greater capacity for LMO testing, as part of the biosafety audit system. 	Indicators (4.2) <ul style="list-style-type: none"> # of departments that adopt procedures for biosafety auditing (with legal backing) and incorporate biosafety audits into their workplans, by project year 3. # of national laboratories mandated and equipped to carry out LMO testing. # of staff trained in LMO detection techniques. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 4.3 4.3 Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on Biosafety	Immediate Outcomes SO4: 4.3 4.3 Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on Biosafety	No change

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Outputs (4.3)	<p>Outputs (4.3)</p> <p>4.3.1 Strategy to engage the research and education sector in promoting biotechnology and biosafety issues.</p> <p>4.3.2 Research groups (public or private) and national publications identified that focus on biotechnology</p> <p>4.3.3 Agreements with the scientific research sector on national biotechnology /LMO research needs.</p>	Outputs were derived from the project's mid-term and end-of-project Targets.
Indicators (4.3) A Strategy to promote research and education in Biotechnology and Biosafety has been devised that raises interest in increasing the status of national scientific knowledge on LMOs	<p>Indicators (4.3)</p> <ul style="list-style-type: none"> • # of research/ academic institutions that, by project year 3, support the promotion of research and education in biotechnology and biosafety. • # of national biotechnology /LMO research needs defined with at least 4 institutions of the scientific research sector. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 5.1 5.1 The institutional and public use of the National BCH node, as an information and participation tool, is increased	Immediate Outcomes SO4: 5.1 5.1 The institutional and public use of the National BCH node, as an information and participation tool, is increased	No change
Outputs (5.1)	<p>Outputs (5.1)</p> <p>5.1.1 Information and documents to educate interested readers and raise awareness on biosafety, available on the nBCH.</p> <p>5.1.2 Dissemination of the nBCH as a biosafety information and participation tool.</p> <p>5.1.3 Positive feedback received from at least 3 users on the information and documents contained on the nBCH.</p> <p>5.1.4 Growing use of the nBCH recorded through an increasing number of "hits".</p>	A Target that sought agreement between at least 4 institutions on how best to systematize and present information for educating and raising awareness on biosafety was not included as an Output, as it was deemed unnecessary for achieving the Immediate Outcome. The Target that gave rise to Output 5.1.4 originally included MARN, MAG and MINSAL as government users. Now it only applies to MARN

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Indicators (5.1) The National BCH portal increases both its contents and its users, and receives positive feedback on these improvements	Indicators (5.1) <ul style="list-style-type: none"> • # of inputs uploaded onto the nBCH specifically for educational purposes or for raising awareness on biosafety. • % increase (above the baseline #) in number of “hits” and Government users of the nBCH. • # of users from which positive feedback is received on nBCH information and documents. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 5.2 5.2 Promoting the safe use of modern biotechnology in the education sector is conducive to increasing awareness and specialization opportunities in biosafety	Immediate Outcomes SO4: 5.2 5.2 Promoting the safe use of modern biotechnology in the education sector is conducive to increasing awareness and specialization opportunities in biosafety	No change
Outputs (5.2)	Outputs (5.2) <ul style="list-style-type: none"> 5.2.1 Strategy for Education on Biotechnology and Biosafety approved by MINED with the support of at least 3 academic institutions. 5.2.2 Biosafety topics incorporated into university and pre-university curricula. 5.2.3 Methodological guidelines for teaching about biosafety. 5.2.4 Internships and scholarships available for biosafety. 5.2.5 Staff trained on how to raise awareness and educate on biosafety. 	Outputs were derived from the project's mid-term and end-of-project Targets.
Indicators (5.2) <ul style="list-style-type: none"> • Formal education in El Salvador as well as informal and non-formal education incorporate the subjects of biotechnology and biosafety. • Capacity (human resources) and opportunities to raise awareness and educate in biosafety, and to specialize in biosafety and biotechnology, are created anew. 	Indicators (5.2) <ul style="list-style-type: none"> • # of universities that incorporate biosafety topics in their curricula, as a result of project efforts. • # of internships or scholarships for biosafety that become available as a result of project efforts. • # of persons trained on how to raise awareness and educate on biosafety using methodological guidelines. • # of institutions that support the Strategy for Education on Biotechnology and Biosafety. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 5.3 5.3 There is greater insight into the Salvadoran people’s perception of the products of modern biotechnology	Immediate Outcomes SO4: 5.3 5.3 There is greater insight into the Salvadoran people’s perception of the products of modern biotechnology	No change

Project Document (ProDoc) + Logframe	Reconstructed TOC at Evaluation	Justification for reconstruction /adjustment
Outputs (5.3)	<p>Outputs (5.3)</p> <p>5.3.1 Program for studying the public's opinions and perception of biotechnology and biosafety, officially approved and funded.</p> <p>5.3.2 Analysis of the public's opinions and perception of biotechnology and biosafety.</p>	Outputs were derived from the project's mid-term and end-of-project Targets.
Indicators (5.3) A program is developed and put into operation to study the public's perception of biotechnology and biosafety.	<p>Indicators (5.3)</p> <ul style="list-style-type: none"> Date in which the Program for studying the public's opinions and perception of biotechnology / biosafety is launched. Date in which the results of the study on the public's opinions and perception of biotechnology / biosafety are published. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.
Outcomes SO4: 5.4 5.4 Channels and capacity for carrying out public consultations in biosafety are created.	<p>Immediate Outcomes SO4: 5.4</p> <p>5.4 Channels and capacity for carrying out public consultations in biosafety are created.</p>	No change
Outputs (5.4)	<p>Outputs (5.4)</p> <p>5.4.1 Guidelines for conducting public consultation processes in biosafety.</p> <p>5.4.2 Training package for conducting public consultations in support of LMO decision-making.</p> <p>5.4.3 Technical teams trained in public consultation processes for biosafety (MARN, MAG and MINSAL).</p> <p>5.4.4 Technical teams with experience in conducting at least 1 public consultation process in biosafety (MARN, MAG and MINSAL).</p>	<p>Outputs were derived from the project's mid-term and end-of-project Targets</p> <p>Outputs 5.4.2 and 5.4.3 became unnecessary once their scope was reduced to only MARN.</p>
Indicators (5.4) Capacities (human resources and mechanisms) exist in competent authorities to carry out public consultation processes, as part of the decision-making process for LMOs, and provide public access to biosafety information.	<p>Indicators (5.4)</p> <ul style="list-style-type: none"> # of authorities that, by project mid-term, agree on guidelines for conducting public consultation processes in biosafety. # of technical staff trained in conducting public consultations in support of LMO decision-making. # of public consultations carried out for biosafety. 	The revised indicators are more specific, measurable and time-bound than the original set, and align well with proposed Outputs as well as the original Targets.

3.2 Causal pathways

76. The structure of the project is based on five main causal pathways, represented as five components. The project's original Logical Framework (logframe) offers a segment of each

pathway, as it focuses only on the path from Immediate to Medium-term Outcomes. The intended impact and project goal, as well as the Outputs, were added as part of reconstructing the TOC. Importantly, the inclusion of assumptions and drivers turned out to be a useful exercise, as these contributing factors were not conscientiously included in project design, and consequently, were not reviewed during project implementation.

77. The diagram below presents the “TOC at Evaluation” in two parts: the first shows the pathways from Outputs to Medium-term Outcomes (the project’s Specific Objectives) and the second shows the pathway from Medium-term Outcomes to the intended Impact. The fully detailed TOC at Evaluation is provided in **Annex 1**. Linkages exist between several causal pathways (or project components) especially at the Outcome level and involving Comp. 3 (administrative framework /decision-making) and 4 (risk management), partly due to overlaps in scope and partly from complementarity. Comp. 2 (regulatory framework) is a decisive causal pathway in the intervention: in order to arrive at a “functioning system” (as expected in several Medium-term Outcomes and the Intermediate State). The regulatory framework (Comp. 2) is a requisite and in turn requires the support of the other results pathways (particularly Comp. 3 and 4).

Project Impact
Expected Goal

Project State

Medium-term Outcomes

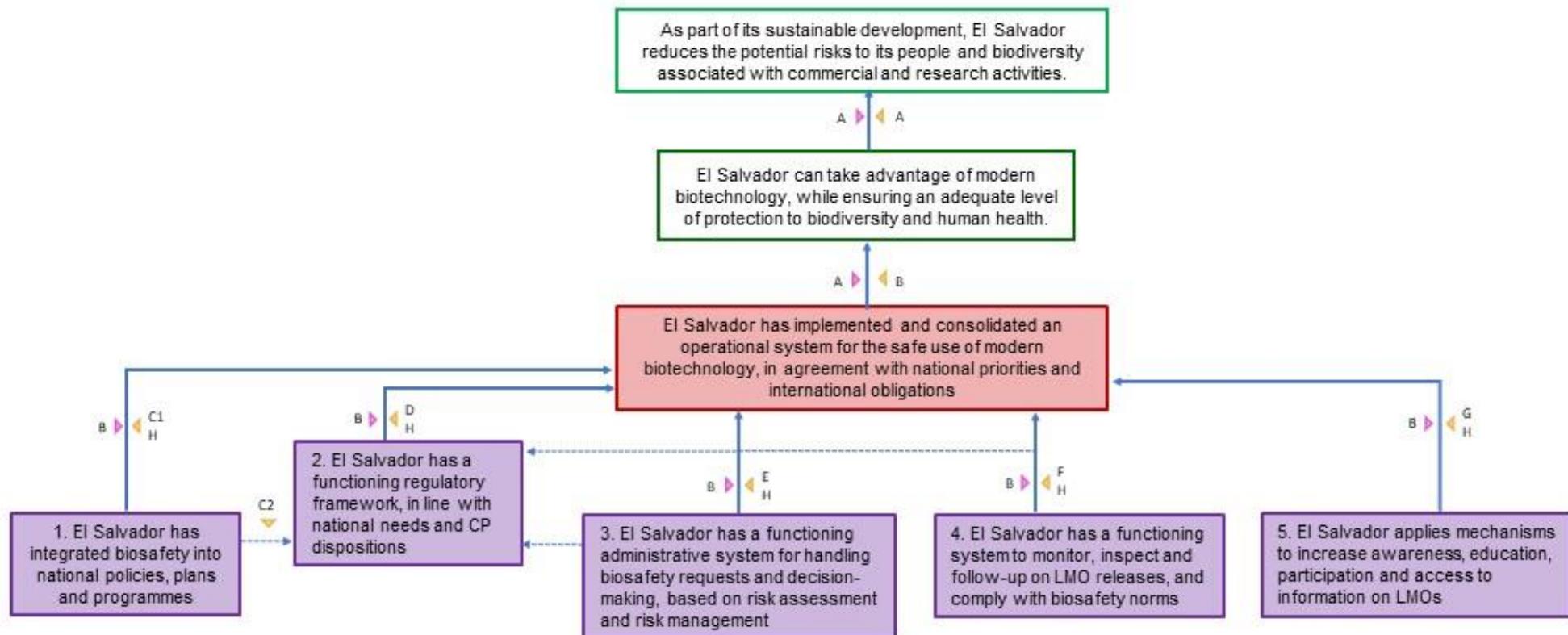
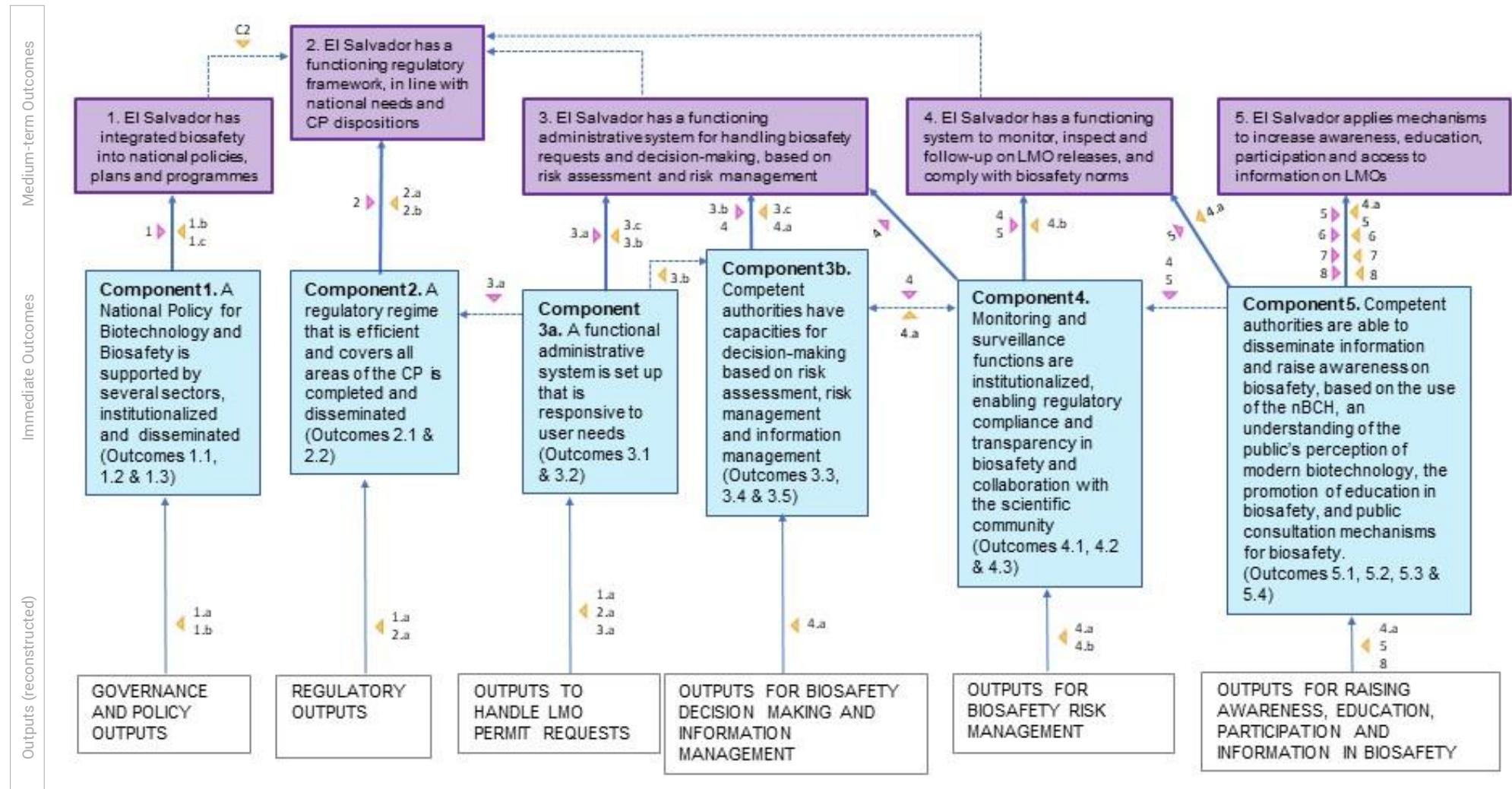


Figure 2. The project's re-constructed Theory of Change (TOC) - shown in two parts: The first part (next page) depicts five causal pathways (project Components) and the links between initial Outputs (shown in summarized form), Immediate Outcomes (shown fused together) and the Medium-term Outcomes (the project's five Specific Objectives). The second part (this page) shows the intermediary states between Medium-term Outcomes and

intended Impact, including the project Goal. The blue arrows indicate causal linkages, drivers are shown as pink arrows (numbered) and assumptions as yellow arrows (also numbered).



3.2.1 First causal pathway: Policy framework

78. This pathway seeks to integrate biosafety into the country's policies, plans and programmes, primarily through the **adoption and implementation of a National Policy for Biotechnology and Biosafety** (pathway's main Output). The pathway entails unifying the Government's agenda in biosafety, recognizing that the issue is a multi-sectoral task and a development opportunity, and securing commitments for moving this agenda forward. In this sense, the pathway's main driver was MARN's desire for other Government sectors to recognize modern biotechnology, coupled with biosafety safeguards, as a development opportunity (Driver 1). MAG, MINSAL and MINED were therefore expected to be closely involved in this pathway as "agents of change", in addition to MARN.

79. In order to achieve Immediate Outcomes relating to the adoption and implementation of a biosafety policy framework, and to institutional capacities for CPB implementation, it was assumed that other sectors (beyond MARN) would take an active role in biosafety by integrating it into their sectoral policies, plans and programmes, empowering existing biosafety committees and supporting biosafety capacity building efforts (Assumption 1.a). It was also assumed, based on progress made during the previous project, that it would be possible to launch and initiate the implementation of a National Policy for Biotechnology and Biosafety within the project's 4-year period (Assumption 1.b). Universities, private foundations and producer associations (CAMAGRO, APA) were all expected to support these efforts

80. Once an integrated biosafety policy framework and institutional capacities were in place (pathway's Immediate Outcomes), and assuming that the Government would be able to agree, within the project's 4-year period, on a common vision or position regarding modern biotechnology and biosafety (Assumption 1.c), El Salvador would have integrated biosafety fully into its national policies, plans and programmes (pathway's Medium-term Outcome).

3.2.2 Second causal pathway Regulatory framework

81. This pathway corresponds to the formulation of regulations and procedures that will be applied to specific LMO types by the National Competent Authorities, namely the MARN, MAG, MINSAL, and in part MINED. This causal pathway is the most determinant of El Salvador's capacity to comply with the CPB and is supported by the other results pathways. Some overlap occurs between this pathway and that of Component 3 (administrative framework) with regards to setting procedures and LMO management processes.

82. This pathway is driven by prior agreements reached during project preparation on the need for further biosafety regulations in order to cover all LMO types and all aspects of the CPB (Driver 2). Through the development of sectoral regulations as well as accompanying procedures and guidelines, and the articulation of a Scientific Committee (pathway's main Outputs), this pathway is conducive to having a complete, efficient and accessible regulatory framework in place (pathway's Immediate Outcomes). It therefore assumed that other sectors (in addition to MARN) would support these regulatory tasks and support biosafety committee tasks (Assumption 1.a). It also assumed that further regulations were necessary to delimit areas of competency and that it would be possible to prepare and adopt this comprehensive regulatory framework within the

project's 4-year period (Assumption 2.a). The key players for this to happen were MARN, MAG, MINSAL and the Supreme Court of Justice.

83. The next step up from an "efficient and accessible regulatory framework" would be for El Salvador to have a *functioning* regulatory framework that is in line with national needs and CP dispositions (pathway's Medium-term Outcome). For this to occur, the main assumptions were that sectoral regulations (National /Special regulations) were necessary and would be adopted within a 4-year period (Assumption 2.a) and then put into operation (Assumption 2.b). It was also believed that the adoption of the National Policy for Biotechnology and Biosafety (Component 1) was a prerequisite for completing the regulatory framework (Assumption C.2) as it would facilitate reaching political agreements over regulatory issues.

3.2.3 *Third causal pathway: Decision-making /Administrative framework*

84. This pathway refers to the biosafety decision-making system, which is to be based on risk assessment, risk management and information management. The emphasis is on efficiency, effectiveness and transparency in decision-making, with all NCAs operating in a clear and integrated fashion to have in place the required human resources, generate decision channels considering all LMOs types, create mechanisms for applicants that are user-friendly, and utilize the nBCH.

85. The main drivers in this pathway are the agreements, reached in the context of designing the project, that: administration of the biosafety system should be efficient and not overly burdensome for the Government or onerous for the applicants (Driver 3.a); that putting risk assessment and risk management at the centre of biosafety decision-making will endow the system with credibility (Driver 3.b); and (c) that the follow-up of approved LMOs and biosafety information management are an integral part of risk management and risk communication and constitute regulatory requirements under the CPB for an effective and transparent biosafety system (Driver 4). The latter also comes into play in Comp. 4.

86. The stakeholders expected to be most closely involved in this causal pathway are MARN, MAG (including CENTA), MINSAL, MINED and potential LMO users, and for the purpose of risk analysis, universities and international /regional organizations too. The Scientific Committee is also called upon to consider LMO cases in this pathway, in support of biosafety decision-making.

87. In order to set up a *functional* administrative system that is responsive to user needs (pathway's Immediate Outcomes 3.a), the roles, responsibilities and coordination of NCAs needed to be clear, administrative procedures and application forms needed to be defined (including the handling of confidential information), staff needed to be trained, and LMO applicants needed to receive official responses (pathway's main Outputs). Likewise, in order to build capacities within NCAs for decision-making and managing biosafety information (pathway's Immediate Outcomes 3.b), staff needed to be trained in and mechanisms defined for biosafety risk analysis, nBCH operations needed to be agreed upon (including a "single window" to facilitate LMO applications) and biosafety decisions needed to be taken (pathway's main Outputs).

88. This causal pathway shows clear linkages and small overlaps with Comp. 2 (regulatory framework) and 4 (risk management). Immediate Outcomes 3.1 and 3.2 relate to 2.2, in as far as they are concerned with NCA roles and responsibilities and the administrative system that are

required in Comp. 2. Immediate Outcome 3.5, on the other hand, supports the biosafety information management requirements of Comp. 4. These linkages explain why some of the pathway's key assumptions for achieving the Immediate Outcomes are shared with other Components.

89. The first assumption is shared with Comp. 1 and relates to the expectation that other sectors (in addition to MARN) will support the policy and regulatory tasks proposed and take an active role in biosafety by, among other things, empowering existing biosafety committees (Assumption 1.a). Another Assumption that also applies to Comp. 2, is that it is necessary, and possible, for other Government sectors (in addition to MARN) to delimit their areas of competency by developing and adopting their own biosafety regulations within the project's 4-year period (Assumption 2.a). A further -and crucial- assumption is that the private sector is eager to put forward LMO applications and is supportive of having an operational biosafety framework (Assumption 3.a). A final assumption, which is shared with Comp. 4, is that all NCAs will view biosafety information management positively and will contribute to the functioning of the nBCH to support, among other things, biosafety decision-making (Assumption 4.a).

90. In order to reach this pathway's Medium-term Outcome, which is that El Salvador would have a *functioning* administrative system for handling biosafety requests and decision-making, based on risk assessment and risk management, two assumptions needed to hold. The first is that, once administrative procedures were complete and became operational, decisions would be taken regarding LMO use (Assumption 3.c) and testing of the system would allow for feedback and improvements (Assumption 3.b).

3.2.4 Fourth causal pathway: Risk management framework

91. This pathway attends to the need to follow-up on approved LMOs and carry out biosafety surveillance, which are tasks related to risk management. Regulatory compliance is to be assured by means of biosafety audits, monitoring and surveillance (including LMO detection capacities and rapprochement with the scientific community) and use of the nBCH. In this pathway, the main players are MARN, MINSAL, MAG and also CENTA where the laboratory for LMO testing is expected to be set-up. The Supreme Court of Justice is also relevant given its role in regulatory compliance, while CAMAGRO and APA are expected to collaborate in monitoring and surveillance efforts, and universities, private foundations and MINED in promoting the safe use of modern biotechnology in the scientific sector as a means to open channels for more research and information on biosafety.

92. This causal pathway shows clear supporting linkages with Comp. 3 (administrative framework /decision-making) and 5 (information, education and participation), whereby Immediate Outcomes 3.5 and 5.1 directly support Comp. 4 in relation to information management as a regulatory requirement that serves monitoring purposes. Immediate Outcomes 4.1 and 4.3 in turn also feed into Comp 3 and 5, respectively, given their relationship with risk management and with the scientific /research sector as a knowledge generator.

93. Two main drivers act on this causal pathway: The first is the understanding that the follow-up of approved LMOs and biosafety information management are an integral part of risk management and risk communication, and constitute regulatory requirements under the CPB for an effective and transparent biosafety system (Driver 4). The second is that setting up a nBCH, which is beneficial for information flow, participation and monitoring, is relatively low cost, has low political

implications, and is therefore a “low hanging fruit” for biosafety (Driver 5). The latter is also relevant to Comp. 5.

94. In this pathway, efforts to formalize audit procedures, put in place LMO detection capacities, increase collaboration with the private sector and scientific community, and inform on biosafety decisions and other regulatory actions (pathway's main Outputs) were expected to lead to Immediate Outcomes that aimed to have monitoring and surveillance functions institutionalized in a way that would enable regulatory compliance and transparency in biosafety as well as collaboration with the scientific community.

95. In order for this to occur, the main Assumptions were: that all NCAs would view biosafety information management as a task linked to LMO follow-up and monitoring and would hence contribute to the functioning of the nBCH (Assumption 4.a), that after biosafety decisions were taken, audits, monitoring and other surveillance actions would be carried out, for which the results would be public (Assumption 4.b) and that the scientific community would offer services and support the LMO monitoring and surveillance tasks of the NCAs (Assumption 4.c).

96. Once El Salvador had institutionalized its biosafety monitoring and surveillance functions, ensuring regulatory compliance, transparency and scientific rigor, it would have in place a functioning system to monitor, inspect and follow-up on LMO releases and comply with biosafety norms (pathway's Medium-term Outcome), as long as Assumptions 4.b and 4.c also held true.

3.2.5 Fifth causal pathway: Information, education and participation

97. This pathway seeks to ensure appropriate levels of public awareness, information and participation, as well as education, in support of biosafety processes. It combines the generation of biosafety information and the incorporation of biosafety into academic curricula and research agendas, with the use of the nBCH and public consultations to promote participation and transparency.

98. This causal pathway is the amplest of the five and covers aspects of the NBF that are as much regulatory requirements (BCH and public consultations) as they are strategic (understanding public perception and fomenting education). As such, the stakeholders that influence this pathway include NCAs (MARN, MAG, MINSAL as well as MINED) and information-generators such as universities, private foundations and international /regional organizations.

99. By seeking to boost biosafety information availability and nBCH use, integrate biosafety into academic curricula, shed light on the public's perception of biotechnology and biosafety, and articulate biosafety public consultation mechanisms (pathway's main Outputs), this pathway would enable NCAs to disseminate information, educate and raise awareness on biosafety (pathway's Immediate Outcomes).

100. Several drivers favour this pathway: The first is that setting up a nBCH, which is beneficial for information flow, participation and monitoring, is relatively low cost, has low political implications and is therefore a “low hanging fruit” for biosafety (Driver 5). The Government also recognizes the need to do more to increase research and development (R&D) and education in science and technology, which would include biotechnology and biosafety (Driver 6). In order to improve public awareness, it is strategic to better understand the public's perception of modern biotechnology and biosafety (Driver 7). Public consultations are also a recognized means for

ensuring public participation and access to information in relation to environmental decision-making (Driver 8).

101. In order to achieve the Immediate Outcomes, this pathway relied on the following assumptions. It was thought that all NCAs would view biosafety information management positively and would support public access to biosafety information by contributing to the nBCH (Assumption 4.a). It was also assumed that persons interested in biosafety would use the nBCH, learn from its contents, and provide feedback on its use (Assumption 5). Lastly, it was believed that the Government could capitalize, for the purpose of biosafety, on its prior experience in carrying out public consultations under its environmental legislation.

102. These same assumptions apply in order to reach the pathway's Medium-term Outcome, which requires that El Salvador applies mechanisms to increase awareness, education, participation and access to information on LMOs. Additional assumptions include that universities will be interested in mainstreaming biosafety topics into their curricula and research and development (R&D) agendas (Assumption 6), and that it is possible to achieve a more balanced (less polarized and better informed) public opinion regarding biotechnology and biosafety, through awareness raising and education (Assumption 7).

3.2.6 Reaching towards impact

103. Altogether, the Medium-term Outcomes of the five causal pathways converge at an Intermediate State, which consists in **El Salvador having implemented and consolidated its operational biosafety system**, allowing it to respond to its national priorities and international obligations. The main driver here is that both public and private sectors in El Salvador have an interest in implementing a comprehensive NBF (covering policy, regulatory, assessment, administrative, enforcement, informative and educational aspects) (Driver B). A cross-cutting assumption in these efforts is that MARN has sufficient leadership, as the main NCA, to keep other institutions up-to-pace and effectively coordinate tasks that involve other sectors (Assumption H).

104. In order for the Medium-term Outcome of Comp. 1 (El Salvador has integrated biosafety into national policies, plans and programmes) to progress towards the Intermediate State, the main assumption is that there will be sufficient political will and continued support from NCAs and decision-makers to consolidate the biosafety system (Assumption C.1).

105. In the case of Comp. 2 (Medium-term Outcome: El Salvador has a functioning regulatory framework, in line with national needs and CP dispositions), it is assumed that the Intermediate State can be reached if demand and pressures from different sectors of society (private companies and NGOs) serve to push the regulatory agenda forward, prompting celerity in the Government to adopt and implement the biosafety system (Assumption D).

106. With Comp. 3 (Medium-term Outcome: El Salvador has a functioning administrative system for handling biosafety requests and decision-making, based on risk assessment and risk management), reaching the Intermediate State requires sufficient understanding of the risks and benefits of modern biotechnology, and of each NCA's role within the biosafety system, for biosafety decisions to be taken confidently (Assumption E).

107. To arrive at the Intermediate State via Comp. 4 (Medium-term Outcome: El Salvador has a functioning system to monitor, inspect and follow-up on LMO releases, and comply with biosafety

norms), it is assumed that it will be possible to apply, within the project's timeframe, the biosafety compliance mechanism in order support the legal enforcement of biosafety regulations (Assumption F).

108. In order for Comp. 5 (Medium-term Outcome: El Salvador applies mechanisms to increase awareness, education, participation and access to information on LMOs) to contribute to the Intermediate State, a key assumption is that the biosafety system can only become *operational* and fully *consolidated* once a certain level of awareness, education, participation and access to information on the safe use of modern biotechnology has been attained (Assumption G).

109. Having reached the Intermediate State, the country can then go on to take advantage of modern biotechnology applications, while ensuring an adequate level of protection to biodiversity and human health through the safeguards offered by means of its biosafety system (Project Goal). The main assumption for this to happen is that it is possible to create, within the project's timeframe, an enabling environment for implementing the safe use of modern biotechnology in El Salvador, which includes instilling confidence in the biosafety system and changing misperceptions (Assumption B).

110. In order to achieve the Intended Impact, which speaks of El Salvador reducing the potential risks to people and biodiversity as part of its sustainable development agenda, the main assumption is that the country will be able to duly manage the risks associated with modern biotechnology (Assumption A) and a driving factor is El Salvador's intention to uphold its international commitments and national legislation in relation to the protection of human health and the environment (Driver A).

4. Evaluation Findings

4.1 Strategic Relevance

111. A “**Highly Satisfactory**” rating was given for **Strategic Relevance**. Overall, the project rates strongly in this criterion, as it aligns well with GEF, UN Environment, regional and national priorities. Complementarities were also achieved with other initiatives (regional and global) in ways that gave rise to synergies and cost-savings.

4.1.1 Alignment to UN Environment strategies

112. The project was approved under the “Environmental Governance” cross-cutting thematic priority of UN Environment’s 2010-2013 Medium-Term Strategy, for which the expected accomplishment was that “*States increasingly implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions*”. It fitted within UN Environment’s 2010-2011 Programme of Work specifically Sub-Programme 4 for “Environmental Governance”, led by the Division of Environmental Law and Conventions, to which all GEF projects were called to make direct contributions.

113. Alignment also follows into subsequent Mid-Term Strategies: 2014-2017 Environmental Governance¹¹ and 2018-2021 Objective: Policy coherence and strong legal and institutional frameworks increasingly achieve environmental goals in the context of sustainable development¹². This strong alignment was confirmed by the ex-UN Environment Task Manager, who concurred that the project was fully in line with UN Environment priorities. The contributions made by El Salvador to these global results, by means of the current biosafety project, can be considered assertive, as the project is directly assisting El Salvador to implement its environmental obligations and achieve its environmental goals through strengthened laws and institutions.

114. The project also aligns well with UN Environment' Bali Strategic Plan for Technology Support and Capacity Building, which 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 strengthen frameworks for developing coherent international environmental policies.

115. South-South Cooperation, which UN Environment defines as the exchange of resources, technology and knowledge between developing countries, was an important feature of this project's capacity building efforts. The project tapped into biosafety expertise and the experience of countries as varied as Brazil, Chile, Costa Rica, Cuba, Honduras, Mexico and Peru, which was highly appreciated by project beneficiaries. Bringing in technical and legal experts from (all but one) Spanish-speaking countries from the same Latin American continent, facilitated discussions and exchanges concerning experiences that were "closer to home". Stakeholder interviews confirmed that this albeit one-way cooperation enriched the learning experience and opened perspectives, especially with regards to different biosafety options and regimes.

4.1.2 Alignment to GEF Strategic Priorities

116. The project responds fully to the GEF's Strategy for Financing Biosafety (Doc GEF/C.30/8/Rev.1) dated December 2006, and at the time, came under Strategic Programme 6 (Building Capacity for the Implementation of the Cartagena Protocol on Biosafety) of the Biodiversity Strategic Objective 3 of the Focal Area Strategies and Strategic Programming for GEF-4 (Doc GEF/C.31/10) from July 2007. It also aims to deliver the key elements of a national biosafety framework, required for the implementation of the CPB that are emphasized in the Updated Action Plan for Building Capacities for the Effective Implementation of the CPB (from 2006). This high degree of alignment was confirmed by the ex-UN Environment Task Manager, who concurred that the project was fully responsive to GEF programming priorities.

4.1.3 Relevance to Regional and National Environmental Priorities

117. The project was found to be highly responsive to regional and national environmental priorities, a finding also confirmed by questionnaire respondents. El Salvador has a National Environmental Policy, a National Agricultural and Livestock Policy, and a National Science and

¹¹ Expected Accomplishment 2: The capacity of countries to develop and enforce laws and strengthen institutions to achieve internationally agreed environmental objectives and goals and comply with related obligations is enhanced

¹² Expected Outcome: Environmental issues are handled in an inclusive, sustainable and coherent manner, based on integrated policy and effective norms and institutions at all levels of governance

Technology Policy, all of which are linked to biotechnology and biosafety implementation. The project was able to contribute to these policies, in as far as an NBF offers a response to concerns about introducing biotechnology applications in different sectors. Moreover, triggered by the project, the National Biodiversity Strategy and the National Climate Change Plan now reference biosafety (the safe use of biotechnology) as a national need, the first¹³ in the context of emergent issues for which El Salvador will require more human capacities, and the second¹⁴ in its biodiversity component, where it expresses the need to have an NBF in order to “minimize adverse impacts on native biological diversity and ensure the protection of genetic resources”.

118. There are a number of legal frameworks that could be considered directly or indirectly relevant to biosafety, yet the most determinant are the CPB, which the country ratified in 2003, and the “Special Regulation for the Safe Use of Genetically Modified Organisms” (2008), which stems from the Environment Law. There is also the Law for Consumer Protection which requires that “genetically modified organisms intended for direct use as human or animal food” be specified in their packaging. The project has directly benefitted these pre-existent frameworks, as it has served to understand and operationalize the regulations, clarify institutional roles, and offer strategic information on biosafety.

119. These efforts are also relevant considering the Free Trade Agreements subscribed by El Salvador, the most important being the *Dominican Republic-Central American Free Trade Agreement with the United States of America* (known as DR-CAFTA). The United States of America is in fact El Salvador’s main commercial partner, especially in the trade of basic grains, which are imported for the agro- and food industries. The project has shed light on certain trade aspects of biosafety, by undertaking LMO detection studies that have confirmed the presence of imported LMO maize across the country (samples were taken from markets and corn fields) and by identifying the main LMOs that are imported as basic grains from El Salvador’s principal commercial partners.

4.1.4 Complementarity with Existing Interventions

120. A high level of complementarity and resonance was achieved at the regional level, in particular with an early initiative of the IICA related to biosafety. IICA is an important player in the Central American region in terms of access to technical resources, policy advice and collaborative efforts in agricultural topics. The project collaborated with IICA’s Central American Biotechnology and Biosafety Initiative, prompted both by the global NBF Implementation project and by MARN’s own initiative. The focus was on capacity building and the regulatory framework (support in the formulation of new instruments).

121. These mutual objectives facilitated the organization of joint activities, offered a platform for exchanging advances and experiences, and financed regional training activities. It opened opportunities to exchange with other UN Environment-GEF project coordinators from the region. Collaboration went on to include the use of IICA facilities in El Salvador, networking and other cost-savings for the project. While there is no individual cost estimation of the co-financing this leveraged, there is no doubt that co-financing did materialize and synergies were achieved.

¹³ <http://www.marn.gob.sv/descarga/estrategia-nacional-de-biodiversidad/?wpdmld=15685> (page 22)

¹⁴ <http://www.marn.gob.sv/download/Plan%20Nacional%20de%20Cambio%20Clim%C3%A1tico.pdf> (pages 32-33)

Furthermore, this complementary alliance with IICA was duly identified before project implementation began, as it is signalled in the ProDoc as a potentially beneficial partnership.

122. Between 2010 and 2014, El Salvador also took part in Phase II of the UN Environment-GEF global BCH project that offered guidance and capacity building for greater sustainability of national BCH systems. However, there is little evidence on how this complementary support was integrated into the project.

4.2 Quality of Project Design

123. The project's design demonstrates sound logic with regards to the main "building blocks" required in order to have a functional biosafety system in place: a policy component that will align government agencies and oblige them to commit resources to biosafety; a regulatory framework that will cover all areas of the CPB and lay out the "rules of the game"; an administrative and decision-making component that will be efficient and based on risk analyses; a monitoring and follow-up system for biosafety risk management; and an information, education and participation component intended to promote transparency and raise the level of understanding of biotechnology and biosafety issues.

124. Other design strengths include the project's problem analysis; situation analysis; stakeholder mapping; stakeholder consultations during project preparation; Monitoring and Evaluation framework; and strategic relevance. Despite small gaps or shortcomings, these design elements are sufficiently well-constructed, complete and/or robust to withstand scrutiny.

125. The project's responsiveness to human rights and gender equality issues is moderate. The recognition of human rights is inherent in El Salvador's ratification of the Cartagena Protocol, yet the project says little about gender equality or upholding specific human rights. This likely stems from the fact that the ProDoc had few requirements to this effect. The project does reference the need to include certain marginalized groups (smallholder producers, women's groups) in biosafety management, once the NBF becomes operational, and with this, does not delve further into human rights issues. While biosafety is recognized to be a contentious issue in El Salvador, especially in relation to first-generation LMOs, this is believed to stem from widespread misconceptions about biotechnology. Hence, ethical concerns are not flagged in relation to any one particular group. Public opinion is mentioned as a motive of study and in relation to awareness-raising activities. Provisions to specifically address the views and concerns of smallholders, farmers' and women's groups were therefore considered part of capacity building and public participation efforts.

126. The project's main design weaknesses refer to its overly ambitious targets and expected Outcomes, considering the 4-year timeframe and resources available. The lack of identification of programmed Outputs is also a key deficiency, together with an incomplete workplan, and redundancies in certain targets. Of these weaknesses, only the alignment and completion of the workplan was redressed at project inception. The project also lacks a knowledge management approach and an exit strategy, and has exiguous risk mitigation measures. The fact that impact drivers and assumptions were not conscientiously identified (the project was designed on the basis of a logframe, rather than a TOC) may have compounded the tendency to set unrealistic results.

127. Notably, the Mid-Term Review carried out at the end of 2012 by the UN Environment Task Manager does not raise any project design issues. The NPC affirms (by means of a questionnaire) that the planned project duration was sufficient, and that the topics /areas of work proposed were appropriate for implementing a NBF. However, findings in this Terminal Evaluation point to project objectives being over-dimensioned for a 4-year period, considering also the funding secured, and the political and institutional context.

128. Operationally, the omission of Outputs from the logframe and the lack of correspondence between the approved project workplan and the logframe are notable weaknesses. The workplan was put together based on expected Outcomes, rather than Outputs, seemingly using a logframe that was not the final (approved) version. This was apparently rectified during the inception period (first semester of 2011), as activities laid out for 2011-2013 did align fully¹⁵ with the logframe's 17 Outcomes and their scope, and made clear references to "deliverables" which echoed the project's targets (M&E plan). However, a reconciliation exercise carried out mid-2013 returned to using the original misaligned and incomplete workplan structure. These issues are further discussed in section 4.7 but the conclusion from the evaluation is that two versions of the workplan were used interchangeably throughout the project period: the original GEF-approved version (which was not true to the logframe) and a revised version prepared at inception (which rectified most of the original design flaws). This led to inconsistencies that lowered the quality of project reporting and monitoring (see section 4.7) yet did not impair the project's result-based management.

129. A complete assessment of Project Design Quality, including ratings, is presented in an annex to the Inception Report. **The overall score for the quality of project design was 3.72 which translates into "Moderately Satisfactory".**

4.3 Nature of the External Context

130. There was a strong shift in the project's political context from when it was designed (2008-2009) to when it commenced execution (2010-2011). The political will or interest in addressing biosafety issues decreased significantly after a new Government came into office in 2009. The project had been designed at a time when government authorities considered that agro-biotechnology applications were an option for the country (even if they raised misgivings among the general population) and there was a collaborative relationship with the companies entailed. Both public and private sectors saw the need for an NBF. However, after 2009, the new government's highly cautious outlook on biotechnology precluded these favourable baseline conditions from being taken advantage of, even if it did not halt the GEF-approved project from being implemented altogether.

131. As corroborated in project reports and interviews, the low political priority given to the project initially limited its performance, reflecting poorly on the sense of project ownership at the country level. The lack of a common vision or government position regarding biosafety

¹⁵ Sources: ANUBIS workplan records, PIR 2011 (Jul 2010-Jun 2011), Half-Yearly Report Jul-Dec 2011, PIR 2012 (Jul 2011-Jun 2012), Half-Yearly Report Jul-Dec 2012, PIR 2013 (Jul 2012-Jun 2013), Workplan for 2013 (approved 31.12.2012).

/biotechnology was viewed as an obstacle to both the project and NBF implementation¹⁶. A learning curve was also needed for authorities to familiarise themselves with the complexities of biosafety. Indeed, political support¹⁷ for the project increased considerably after 2016, once the government was well into its second term (2014-2019) and biosafety had gained sufficient traction among key authority figures, such as the Minister of Environment who had been Vice-Minister in the previous government period.

132. Presidential elections and the change of government taking place in 2014 also affected the project's external context, slowing down project execution within MARN and putting on hold certain activities (mainly consultancies and workshops)¹⁸. The elections had a double effect that spanned over more than a year, with outgoing authorities deferring approvals and decisions in the period running up to the elections, and incoming authorities, once in office, concentrating all institutional efforts on developing MARN's quintennial Strategic Work Plan. **The overall result is a Moderately Unfavourable rating for “Nature of External Context”.**

4.4 Effectiveness

4.4.1 Delivery of Outputs

133. This section focuses on Outputs derived from the TOC reconstruction process, given the absence of Outputs in the approved project. Outputs were derived directly from the mid-term and end-of-term targets contained in the project's M&E plan, as these could be readily transposed into specific, measurable, attributable and relevant deliverables under each Immediate Outcome. This exercise was complemented using programmed activities that had been refined during the inception period and loaded onto ANUBIS as the initial project workplans (2011-2013). These activities had been drafted in order to be in line with the project's targets and in a manner that readily revealed the desired deliverables. Hereafter, all references to “project Outputs” therefore relate to these *reconstructed deliverables*, as listed in the table below.

Table 10. Outputs (for Immediate Outcome) reconstructed as part of the evaluation process.

Component 1	
Immediate Outcome 1.1 A National Policy for Biotechnology and Biosafety is made official, disseminated and initiates implementation	1.1.1 National Policy for Biotechnology and Biosafety validated and made official.
	1.1.2 Dissemination of the National Policy
	1.1.3 Technical units created or strengthened for biosafety (MARN).
Immediate Outcome 1.2	1.2.1 Project strategy to strengthen biosafety capacities, approved by multiple sectors.

¹⁶ Sources: interviews, questionnaires, project reports

¹⁷ Vice-ministers would show their support by inaugurating project activities.

¹⁸ Sources: PIR FY2014, Half-Yearly Progress Report 2013, interviews

CP implementation occurs in a unified fashion and with institutional support.	1.2.2 Initial workplan for the project strategy.
	1.2.3 Periodic sessions of the Inter-institutional Biosafety Committee to address biosafety capacity building and CP implementation.
Immediate Outcome 1.3 The relevance and transversal nature of biosafety is accepted by several sectors	1.3.1 Dissemination and high-level consultations to promote the incorporation of biosafety into sectoral plans, programs and projects.
	1.3.2 Sectoral policies and plans that incorporate biosafety (MAG, MARN, MINSAL, MINED)
Component 2	
Immediate Outcome 2.1 The regulatory regime is completed to cover all areas of the CP and is made accessible to interested parties	2.1.1 National /Special regulations validated by the Inter-institutional Biosafety Committee and officially published
	2.1.2 Specific procedure or norm for LMOs in transit.
	2.1.3 Dissemination of all regulations and availability for all relevant stakeholders.
Immediate Outcome 2.2 The application of new regulatory instruments allows El Salvador to act efficiently in biosafety	2.2.1 Ministerial resolutions that define LMO management processes (MARN, MAG, MINSAL).
	2.2.2 Guidelines for applying biosafety regulations.
	2.2.3 Scientific Committee enabled to apply new regulations and consider all LMO cases.
	2.2.4 Simplified procedures for handling LMO requests proposed (in accordance with art.13 of the CP).
	2.2.5 NCA staff trained on the application of biosafety regulations and LMO management processes
Component 3	
Immediate Outcome 3.1 The clear definition of the functions and responsibilities of competent authorities allows El Salvador to handle any request for LMO use.	3.1.1 Roles, responsibilities and coordination mechanisms defined for MARN, MAG and MINSAL, including follow-up actions.
	3.1.2 Flowcharts for biosafety decision-making in MARN, MAG and MINSAL.
	3.1.3 Technical and administrative staff from MARN, MAG and MINSAL trained to process and review LMO request, and coordinate follow-up actions.
Immediate Outcome 3.2 A functional administrative system is set up that is responsive to user needs	3.2.1 Administrative steps defined for LMOs subject to transboundary movements (first-time and subsequent movements). (<i>linked to 3.4.1</i>)
	3.2.2 Operational provisions in place to handle confidential information (MARN).
	3.2.3 Responses to applicants on LMOs subject to first-time transboundary movements that follow the CP (Art.7-11).
	3.2.4 LMO request forms available and revised to be more user-friendly
Immediate Outcome 3.3 National capacity for risk assessment and risk management is increased	3.3.1 A common methodology to evaluate LMO risks and determine risk management measures.
	3.3.2 At least 2 experts from MARN, 1 from MAG and 1 from MINSAL trained in biosafety risk analysis.
	3.3.3 Scientific Committee sessions to advise MARN on an LMO request after undertaking the risk assessment process.
Immediate Outcome 3.4 Competent authorities have a decision-making system that is efficient, effective and transparent.	3.4.1 Procedures for decision-making, in line with the CP. (<i>linked to 3.2.1</i>)
	3.4.2 Dissemination of the biosafety decision-making system
	3.4.3 At least 1 decision taken on LMO use
Immediate Outcome 3.5	3.5.1 Procedures to validate the information to be published on the nBCH.

A locally-run system to process, archive and exchange information is up and running (National BCH)	3.5.2 An operational nBCH with new information regularly uploaded and institutions participating (MARN).
	3.5.3 A "single window" electronic system created to facilitate LMO applications
Component 4	
Immediate Outcome 4.1 Monitoring and surveillance functions are facilitated to ensure regulatory compliance	4.1.1 Monitoring and Surveillance Protocols drafted for follow-up of approved LMOs (MARN).
	4.1.2 Network created for follow-up and surveillance of approved LMOs, involving the private sector.
	4.1.3 Biosafety decisions, audit results and other surveillance actions, uploaded onto the nBCH
Immediate Outcome 4.2 Setting up an audit system for biosafety allows follow-up actions to be standardized	4.2.1 Agreement over which institution will oversee LMO testing (detection).
	4.2.2 Procedures for biosafety auditing, agreed between NCAs and with legal backing.
	4.2.3 Biosafety audits incorporated into NCA work plans (MARN).
	4.2.4 National laboratory(ies) equipped and mandated to carry out LMO testing.
	4.2.5 Staff trained in LMO detection techniques.
Immediate Outcome 4.3 Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on Biosafety	4.3.1 Strategy to engage the research and education sector in promoting biotechnology and biosafety issues.
	4.3.2 Research groups (public or private) and national publications identified that focus on biotechnology
	4.3.3 Agreements with the scientific research sector on national biotechnology /LMO research needs.
Component 5	
Immediate Outcome 5.1 The institutional and public use of the National BCH node, as an information and participation tool, is increased	5.1.1 Information and documents to educate interested readers and raise awareness on biosafety, available on the nBCH.
	5.1.2 Dissemination of the nBCH as a biosafety information and participation tool.
	5.1.3 Positive feedback received from at least 3 users on the information and documents contained on the nBCH.
	5.1.4 Growing use of the nBCH recorded through an increasing number of "hits" and Government users.
Immediate Outcome 5.2 Promoting the safe use of modern biotechnology in the education sector is conducive to increasing awareness and specialization opportunities in biosafety	5.2.1 Strategy for Education on Biotechnology and Biosafety, approved by MINED with the support of at least 3 academic institutions.
	5.2.2 Biosafety topics incorporated into university and pre-university curricula.
	5.2.3 Methodological guidelines for teaching about biosafety.
	5.2.4 Internships and scholarships available for biosafety.
	5.2.5 Staff trained on how to raise awareness and educate on biosafety.
Immediate Outcome 5.3 There is greater insight into the Salvadoran people's perception of the products of modern biotechnology	5.3.1 Program for studying the public's opinions and perception of biotechnology and biosafety, officially approved and funded.
	5.3.2 Analysis of the public's opinions and perception of biotechnology and biosafety.
Immediate Outcome 5.4 Channels and capacity for carrying out public	5.4.1 Guidelines for conducting public consultation processes in biosafety.
	5.4.2 Training package for conducting public consultations in support of LMO decision-making.

consultations in biosafety are created.	5.4.3 Technical teams trained in public consultation processes for biosafety (MARN, MAG and MINSAL).
	5.4.4 Technical teams with experience in conducting at least 1 public consultation process in biosafety (MARN, MAG and MINSAL).

134. El Salvador made substantial headway in developing and adopting key instruments and means for NBF implementation across all 5 project components. Reaching a fully-functional and responsive NBF, however, was dependent on events outside the project's domain. The absence of LMO applications that would bring the biosafety system into operation affected Output delivery, specifically under the more operational Components: 3, 4 and to a lesser extent, 5. Other factors were also found to influence Output delivery and uptake, including issues stemming from project design and project management, to more political factors.

135. Government internalization of project Outputs has occurred, albeit slowly. MARN bureaucracy, onerous administrative and authorization requirements, and initially indifferent or indecisive decision-makers, slowed project activities and approval processes¹⁹ and limited Output delivery. However, after achieving greater political involvement in the project, several new instruments for biosafety management are now moving along the pipeline and should be official and available to MARN, MAG and MINSAL before the change of government (June 2019).

136. Output uptake by non-governmental sectors has also occurred, although the degree of ownership varies considerably between stakeholder groups. In this, two critical factors were project management and stakeholder participation (including the stage and level at which participation had taken place). Many stakeholders were unaware of important project Outputs and their level of uptake, mostly because they lacked updated information on the status of the project and/or because their participation in the project had been low, or had shifted from high to low alongside changes in project management.

137. It is noteworthy that beyond the expected set of "deliverables" (expressed through the project Targets and activities), the project also generated additional relevant Outputs not originally contemplated, namely:

- Compendium of national and international regulations in biosafety (published in Spanish) - contributes to Comp. 2 and 5.
- Laboratory manual for LMO detection - contributes to Comp. 4.
- LMO analyses of maize samples from across the country - contributes to Comp. 4.
- Dossiers (8) for reviewing LMOs intended for Food, Feed or Processing (LMO-FFPs) that are approved and produced in countries that export grains to El Salvador - contributes to Comp. 4.

138. In the absence of LMO permit requests being presented to MARN during the project period, and of the ensuing biosafety decisions, it was unavoidable that the project would fall short of those results that expected MARN and the other Ministries to test the biosafety system, and even refine

¹⁹ Sources: questionnaire responses, interviews, project reports.

it in specific ways. This limitation, which affected the delivery of 7 Outputs, was beyond the control of the project team and is the main reason why it was not possible to fully progress from certain Immediate Outcomes onto those Medium-term Outcomes that aimed to have a “functioning” system in place. It also explains why certain Outputs lack specific qualities (e.g. no user feedback to improve LMO application forms in Output 3.2.4).

139. High staff turnover posed constraints to project management and to building up momentum²⁰ as the project had a number of NPCs and diverse Project Directors (MARN senior managers). There were nonetheless two main NPCs who were crucial for Output delivery: the first NPC who was on board from project onset (Dec 2010) until Jan 2014, and the last NPC who managed the project from April 2015 until its completion. The departure of the first NPC in Jan 2014 was an inflection point that marked a “before and after” in project management, and in both project results and stakeholder participation. It also generated contention among stakeholders over the manner in which, and the reasons for which, the NPC had been removed from the project²¹.

140. The overall rating for “Delivery of Outputs” was **Moderately Satisfactory**, given that, as explained in detail below, despite delays and the need for various adjustments, the project was ultimately able to deliver the products and services that were most needed in order to arrive at a functional biosafety system. These were found to be of good quality and highly useful, with ownership occurring in key sectors.

4.4.1.1 Quantitative assessment of Output delivery:

141. A total of 38 Outputs were fully accomplished and 7 partially accomplished, from a total of 54 relevant Outputs. This gives **overall Output delivery rates of 70% fully achieved and 13% partially achieved, which points to a high performing project**. Components 1 and 2 come out as the best performing, followed by Component 4 (see Figures below). Out of all unaccomplished and partially accomplished Outputs, 7 can be attributed to the absence of LMO applications (44%). Output-by-output achievement for each project Component is provided in **Annex 5**.

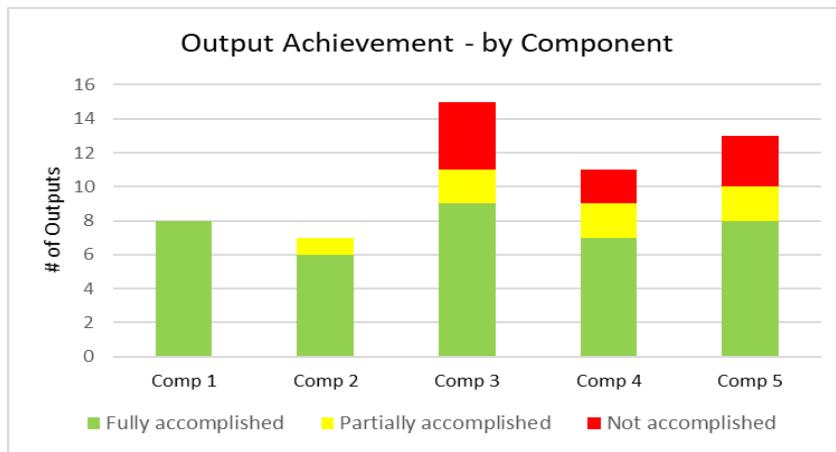


Figure 3. Output achievement rates by project Component (from a total of 54 relevant Outputs).

²⁰ Source: project reports, interviews

²¹ Source: interviews, Steering Committee documents (letter to the Minister of Environment 6 March 2014)

4.4.1.2 Qualitative assessment of Output delivery:

142. The evaluator reviewed a sample of Outputs and considered these to be useful and of good technical quality, as corroborated by questionnaire respondents who rated what the project delivered²² as being of high quality and relevance. Steering Committee members were generally involved in Output preparation, especially in early drafts. *The main Outputs delivered are found to be pivotal for NBF implementation, and in this regard, contributed directly to the achievement of expected results.* The most visible contributions (i.e. most acknowledged) were in the policy arena, and the least visible (i.e. least publicized or that had low Steering Committee involvement) were in the decision-making and monitoring /risk management arenas²³. It was found that many stakeholders were unaware of the progress made or products generated, especially those initiated or finalized after 2014, pointing to poor communications (e.g. many interviewees did not know that the laboratory equipment for LMO detection had been set up within MARN and was operational).

143. Certain Outputs had their scope reduced, as a result of adaptive management. The decision to recognize MARN as the only NCA and to operate under the Environmental Law and its Special Regulation for LMOs meant that, if originally, MARN, MAG, MINSAL and in some cases MINED, had been named as beneficiaries of certain project Outputs (targets /deliverables), then after this decision, MARN became the sole beneficiary. This was the case for 7 Outputs which were originally conceived as targets or deliverables that involved several institutions, but that ultimately were only relevant to MARN. There were also 4 Outputs that became unnecessary, as they were already in place in MARN but had been proposed as deliverables in consideration of the other Ministries. Evidently, this change not only reduced Output scopes but also decreased the extent to which other Ministries were involved in Output delivery. In the evaluation, attention is therefore on Output relevance, delivery and uptake (is the Output available or in place?) rather than on the degree to which its original description (inferred from project activities and mid-term /end-of-term targets) has been met.

144. Output delivery was not timely, as project execution incurred delays from early on. All questionnaire respondents believed these delays could have been avoided. The project also faced technical difficulties in Output delivery, the main challenges being the small pool of relevant expertise available for consultancies and some experts not being cleared by authorities for specific assignments²⁴. Nevertheless, solutions²⁵ to these obstacles were found through Task Manager oversight and adaptive management.

²² Given that many stakeholders were unaware of the full suite of project outputs (especially those finalized after 2014), yet most questionnaire respondents rated the project's outputs highly, it is assumed that this valuation is based on their early involvement in the project when most outputs /activities were in relation to capacity building efforts and the drafting of products and proposals.

²³ Sources: questionnaire, interviews, nBCH, Steering Committee minutes.

²⁴ Sources: questionnaire, interviews, project reports

²⁵ One such solution was to tap into international and regional expertise when procuring professional services

145. The extent to which the project contributed capacities for biosafety management was high²⁶. Likewise, the project succeeded in raising awareness and overall understanding of biotechnology and biosafety, and in influencing public opinion²⁷. These aspects were amongst the most remarked by interviewees, who emphasized *the value of the project in facilitating high quality training, information, open discussions* and even exchanges with international experts. The change in public awareness was substantial, considering the project had initiated in a climate of mistrust surrounding biotechnology (and by extension, biosafety), which used to be viewed as a taboo subject. Now, a more informed and less polarized discussion of biotechnology applications and their relevance to El Salvador, is possible among stakeholders. This is encouraging for NBF implementation and for contributing enabling conditions for the eventual implementation of the National Policy as well.

"The perception is that [the project] lowered the level of fear that had been generated around biotechnological processes"

4.4.1.3 Component 1: Policy Framework.

146. This Component was highly successful in Output delivery and achieved the adoption of a National Policy on Biotechnology and Biosafety (Output 1.1.1), the creation /strengthening of technical units for biosafety (Output 1.1.3) and the integration of biosafety into sectoral policies and plans (Output 1.3.2). These strategic elements of the NBF are central to the achievement of Immediate Outcomes and all contribute to the project's "Sustainability" rating.

147. The National Policy, which has been approved by the Presidency (Jan 2019) and is awaiting publication in the official gazette, counts for strong political support. Its formulation and acceptance, however, proved to be an extended iterative process that gained political momentum only after 2016. Seeking its Presidential approval ensured the involvement of all government entities concerned with biotechnology in its validation. This conferred a truly national character to the policy and not merely a sectoral (environmental) one, as would have been the case if the policy had been approved by Ministerial Decree. The Policy also addresses biotechnology in an ample sense, comprising different aspects of biotechnology and including both biosafety and bioprospecting (access to genetic resources) as complementary elements of the Convention on Biological Diversity. This gave the policy a more integral character and development-oriented focus, and made it politically more interesting to decision-makers

148. Technical units for biosafety have been created /strengthened, albeit circumscribed to MARN. This Output was expected to be one of the first manifestations of the implementation of the National Policy (as per Immediate Outcome 1.1) but occurred even before the policy was adopted. Existing Departments in MARN that carry out environmental assessments and field inspections are now better able to address biosafety issues. Additionally, internal re-structuring in MARN (currently ongoing) should result in a specific Unit, with specialized human resources,

²⁶ Sources: questionnaire, interviews, project reports and Outputs relating to capacity building and educational activities

²⁷ Sources: questionnaire, interviews

dedicated to the implementation of the CPB and to access to genetic resources and benefit-sharing²⁸.

149. For the purpose of integrating biosafety into sectoral plans and policies (Output 1.3.2), MARN was able to mainstream biosafety into its own Biodiversity Policy and National Climate Change Plan (see section 4.1.3). In order, however, to permeate into other government sectors, biosafety had to be taken up at the political level, a task seemingly beyond the domain of the Inter-institutional Biosafety Committee. Here, the most significant results have occurred in the field of food security, whereby biosafety is now on the agenda of the National Council for Food and Nutritional Security (known as CONASAN). The National Council is a high-level (Ministerial) governance platform presided by the Minister of Health since 2009 that brings together MARN, MAG, MINSAL, Consumer Defence and other entities. Its members gained an interest in LMO-FFPs after being privy to the project's LMO detection results in maize samples from around the country. There are now agreements over institutional competencies and greater awareness of the need for coordinated action around LMO-FFPs, for which a common agenda has been set involving the three Ministries and Consumer Defence as a core group²⁹. The project has also been successful in the educational arena, where biosafety has permeated into academic agendas and university curricula (see Component 5 below).

4.4.1.4 Component 2 – Regulatory framework

150. This Component moved away from the option of introducing sectoral biosafety regulations and focused instead on operationalizing the existing Special Regulation. MARN was able to develop a series of regulatory /procedural instruments, some of which have already been adopted and others are in the process of being officialised. The instruments themselves are listed under Components 3, 4 and 5, yet their legalization is recognized under this Component, as Output 2.2.1.

151. There are now procedures for the environmental evaluation of projects aimed at the production of LMOs subject to transboundary movements, and procedures for environmental audits for biosafety, both with legal backing³⁰. Procedures for public consultations and for reaching decisions on LMO-FFPs are due to be officialised shortly. The latter are for use by MARN, MAG and MINSAL, reason for which these Ministries have been reviewing and tailoring these procedures for their own use. Adoption of these LMO-FFP procedures will mark a milestone in inter-Ministerial NBF coordination.

152. Other significant Outputs under this Component are MARN's specific procedures for LMOs in transit (Output 2.1.3)³¹, the guidelines for applying biosafety regulations (Output 2.2.2)³² and the

²⁸ Sources: interviews

²⁹ Source: interviews, meeting with LMO-FFPs working group, project reports.

³⁰ For the purpose of Output 2.2.1, approvals by means of "Ministerial Agreements" or "Ministerial Resolutions" are considered equivalent.

³¹ Output 2.1.3 comprises specific procedures for LMO pathogens and for LMO-FFPs crossing the national territory.

³² This Output combines indications for interested parties on the "single window" (Comp. 3) with a "User Guide" generated by the project.

simplified procedures for handling LMO requests as per Article 13 of the CPB (Output 2.2.4)³³. Combined, this full set of procedures brings El Salvador very much in line with CPB requirements.

153. Efforts to establish the Special Regulation's Scientific Committee (Output 2.2.3) and set norms for its proceedings began early in the project but faced challenges that impeded the Committee from becoming operational³⁴. Currently, its officialization is being renewed³⁵, which means that MARN is calling on MINSAL and MAG to endorse its composition (nominated experts). This validation step is expected to conclude in the coming months (i.e. before the change of government mid-2019).

4.4.1.5 Component 3 – Decision-making /administrative framework

154. Under Component 3, valuable tools to support and guide biosafety decision-making were generated. A key tool is the risk assessment methodology (Output 3.3.1), published within a set of Guidelines and accompanied by the training of technical personnel to carry out biosafety risk analyses and determine risk management measures (Output 3.3.2). Procedural Outputs (3.1.2, 3.2.1 and 3.4.1) were also generated that define the administrative steps needed to process LMO applications (or LMO permit requests). These Outputs are interrelated, with some overlap occurring between them, but in practice, products were streamlined and redundancies avoided.

155. The procedures for the environmental evaluation of LMO production projects (Outputs 3.2.1 and 3.4.1), already approved by MARN, apply to the first transboundary movement of LMOs and integrate the risk assessment principles and guidance of the CPB. The procedures for reaching decisions regarding LMO-FFPs are due to be officialised shortly by MARN, MAG and MINSAL, after they are tailored to each Ministry. The flowcharts produced as Output 3.1.2 explain in schematic form the decision-making processes for different LMO types. This ample set of instruments should enable El Salvador to handle eventual LMO applications with ease.

156. A “single window” was also produced to facilitate LMO applications. This online tool is not an electronic applications system, but rather a comprehensive repository of all the information that is relevant to potential LMO permit applicants. Currently it can be found at: <http://apps.marn.gob.sv/ogm/> but is intended to be lodged within El Salvador’s nBCH³⁶. It contains definitions, application forms, procedural guidelines and flowcharts for different LMO types, as well as information material. Its purpose and contents contribute to good communications, but currently, this information window remains invisible, so if it is to realize its purpose, it must become publicly accessible.

157. Outputs that were not delivered were mostly linked to the lack of LMO applications, as biosafety decisions were expected to be taken in this Component, allowing the various biosafety instruments to be used, or to the reduction in scope making them unnecessary. Therefore,

³³ Output 2.2.4 refers to the procedures that apply to subsequent requests placed after the first transboundary movement /introduction of an LMO has been approved.

³⁴ Source: project reports, PIRs, interviews.

³⁵ Source: interviews, meeting with LMO-FFPs working group including the Vice-Minister of Environment

³⁶ <http://www.marn.gob.sv/destacadocp/bch/>

unachieved Outputs in this Component say more about project design and external context than about project performance.

4.4.1.6 Component 4 – Risk management framework

158. As with Component 3, the Outputs generated in this Component are highly instrumental and constitute important tools for NBF implementation and for guaranteeing an adequate level of biodiversity protection. The most valuable Outputs relate to: the procedures, now officialised by MARN, for undertaking environmental audits of approved LMO production projects (Output 4.2.2); two proposals providing guidance on the monitoring and surveillance system (Output 4.1.1); and laboratory equipment for LMO detection installed at MARN, together with technical staff (and university students) trained in LMO detection techniques (Outputs 4.2.1, 4.2.4 and 4.2.6). Combined, these Outputs significantly raise El Salvador's capacity for biosafety risk management.

159. As with Component 3, in the absence of LMO applications that would prompt biosafety decisions and follow-up actions, certain Outputs could not be achieved or only partially achieved. Such was the case with Output 4.1.3 that aimed to upload “biosafety decisions, audit results and other surveillance actions” on the nBCH. Here, novel information that has been uploaded consists of 8 technical dossiers for the LMOs that have been approved by, and are produced in, El Salvador's principal commercial partners (i.e. countries from which El Salvador imports basic grains, such as maize). These dossiers are the backbone of the biosafety decisions taken by other countries, and even if they do not constitute Salvadoran decisions, having this information available is relevant to biosafety monitoring in El Salvador and to eventual decisions that may be taken nationally regarding LMO-FFPs.

160. Interestingly, engagement with both the private sector (for biosafety monitoring) and the education and research sectors (for promoting research and information flow in biosafety) was expected under this Component. This may have been premature given the need for MARN to first “get to grips” with monitoring and surveillance tasks and then identify specific gaps before seeking collaboration with others to fill those gaps. Little progress was therefore made with associated Outputs, except for the rapprochement with the scientific community (Output 4.3.1).

4.4.1.7 Component 5 – Information, education and participation

161. This Component generated a wide diversity of Outputs, some in support of regulatory tasks (nBCH and public consultations) while others vital for increasing knowledge on biotechnology and biosafety. Information availability has increased through the nBCH (Outputs 5.1.2 and 5.1.3), which is hosted on MARN's main website (<http://www.marn.gob.sv/destacadocp/bch/>) and now contains various technical and legal documents that can be downloaded by the general public. There is also the complementary “single window” to facilitate LMO applications, which is more operational and has yet to “go live”. MARN's procedures for biosafety public consultations (Output 5.4.1) are due to be officialised shortly and respond directly to the requirements of the Environment Law for carrying out public consultations under the Environmental Assessment System.

162. Another valuable Output is the Strategy for Education on Biotechnology and Biosafety (Output 5.2.1), which is aimed at introducing biotechnology / biosafety at the school level (primary and secondary education) as well as the university level. For the latter, the Strategy includes an implementation roadmap. A didactic Guide Book for teaching on biotechnology and biosafety

(Output 5.2.3) was also generated, aimed at teachers and professors. MARN has begun to circulate the Guide Book among academic personnel, and to discuss a way forward for the Strategy (and its accompanying material) with MINED, in particular its Vice-ministry for Science and Technology. If uptake of the Strategy occurs with MINED and/or the Vice-Ministry, this would further raise country ownership.

163. A key project contribution in the educational arena is the incorporation of biotechnology and biosafety into university curricula (Output 5.2.2). This is a significant accomplishment and has occurred both visibly and invisibly. Thanks to project efforts, the private University José Matías Delgado initiated a new degree in Agrobiotechnology Engineering³⁷ (to date, the country's only career dedicated to biotechnology), which includes a biosafety component, and together with El Salvador's Technological University, introduced biotechnology/biosafety topics into other related careers. There are also university researchers and teachers who have by their own accord, sought ways to permeate these topics into their teachings³⁸.

164. This Component also delivered a gender-sensitive public perception study (Output 5.3.1) carried out by researchers from El Salvador's Technological University, in collaboration with the project's first NPC. The results of the study were shared with project stakeholders and revealed the extent to which misconceptions about LMOs, and by extension, biotechnology prevailed in the Salvadoran population, especially in relation to genetically modified foods. It also shed light on how perceptions differed between men and women. Whether or not the study has had any impact is unclear, as there was no evidence of uptake of the study's findings.

165. A mix of individual motivations and institutional commitments converge in this causal pathway, which is strategic in terms of increasing knowledge of biotechnology and biosafety across Salvadoran youth, better understanding public perceptions and furthering the country along the path of biotechnological development. It also reflects the project's positive influence on the academic sector represented on the Inter-institutional Biosafety Committee. These results, which are a consequence of productive partner relations achieved from the onset of the project, weigh in the project's ratings for "Stakeholder participation", "Sustainability" and "Country Ownership and Driven-ness".

166. The project's early years were highly participatory, calling upon different stakeholder groups to build alliances and access technical and legal resources. Two groups that stand out are the academic sector and international /regional organizations, in addition to CENTA, with which excellent working relationships were built. These findings favour the project's rating for "Stakeholder Participation and Cooperation". However, changes in project dynamics after January 2014 left many participating stakeholders feeling excluded from the project; some stakeholders even felt that their full involvement was hindered from early on. Such is the case with the private sector, which together with NGOs, was not fully integrated into the Inter-Institutional Biosafety Committee and had only marginal presence in the project. The private sector had high expectations regarding its involvement in this project, which were not met, despite efforts by the Task Manager

³⁷ <https://www.ujmd.edu.sv/carreras-universitarias/ingenieria-en-agrobiotecnologia/>

³⁸ Source: interviews

to this effect.³⁹ The involvement of NGOs (including small farmers' groups) was only as beneficiaries of capacity building.⁴⁰ While the Inter-institutional Biosafety Committee was a strong vehicle for stakeholder participation, its composition had a strong bias towards the government and academic sectors, and could have been more inclusive. This finding weakens the project's rating for "Stakeholder Participation and Cooperation" and in part that for "Project Management" since the project team's role includes maintaining productive partner relationships and communications.

4.4.2 Achievement of Immediate Outcomes

167. The evaluation sought to determine whether Immediate Outcomes were accomplished to a high extent (>75%), partially (50-75%) or to a low extent (<50%). This was done on the basis of Output accomplishment rates (per Outcome) combined with an evaluative judgement of the significance of achieved or unachieved Outputs for Outcome delivery, and of the extent to which Immediate Outcome descriptions were met.

168. Overall, the evaluation points to a **high Immediate Outcome achievement rate, with 65% accomplished to a high extent and 35% partially accomplished**. This reflects well on the project, which delivered on the main elements of a functional biosafety system. The fact that the NBF is not operating to its full potential and that its completion took twice as long as planned is more due to changes in contributing conditions (assumptions that did not hold) and political support, than to poor project performance. The absence of a clear government position on biosafety is named as the principal cause of the obstacles faced by the project.

169. Where Immediate Outcomes were partially achieved, this was generally due to shortfalls in meeting the full scope of the Outcomes in question, which in turn were mostly due to changes in project assumptions (including the assumption that the private sector was eager to put forward LMO applications (Assumption 3.a), which would allow the biosafety system to be tested) and to the shift away from other Ministries acting as NCAs in addition to MARN. Given the breadth of the Immediate Outcomes (17 in total) and their multi-sectoral nature, the fact that project capacities for stakeholder participation and coordination were limited at times also influenced the partial achievement of results.

170. In the box below, achievement rates are shown by Component. The best performing are by far Components 1 and 2, with all Immediate Outcomes delivered to a high extent, followed by Component 3, which shows 60% of Immediate Outcomes delivered to a high extent, and Components 4 and 5 with mixed results. No Immediate Outcomes were delivered to a low extent (<50%).

171. With the results obtained, El Salvador has made significant progress in meeting its obligations under the CPB. All results can be attributed fully to the project, considering also complementary support provided by the global BCH Phase 2 project. As a counterfactual, it has

³⁹ Source: project reports, Task Manager mission reports, interviews

⁴⁰ Source: interviews, project reports, project Outputs and support documents on capacity building activities.

been stated that in the absence of GEF support, El Salvador would not have attained the full breadth of results that it achieved. The main emphasis was on the project's extensive and highly valued public awareness and capacity building efforts (with access to international expertise), and the coordination achieved amongst different sectors and disciplines (e.g. with the Inter-institutional Biosafety Committee and the policy formulation process). Those more familiar with project results also valued the GEF's support in adopting a new policy and in facilitating the discussion process that this entailed; in setting up an LMO detection laboratory, which MARN could not have afforded otherwise; in defining risk assessment methods; and in upgrading the nBCH with a "single window" to facilitate LMO applications.

172. On the basis of the evaluation outlined below, the criterion "**Achievement of Immediate Outcomes**" is rated as **Satisfactory**.

Component 1:

Component 1	
Immediate Outcome 1.2 CP implementation occurs in a unified fashion and with institutional support.	
Immediate Outcome 1.1 A National Policy for Biotechnology and Biosafety is made official, disseminated and initiates implementation	Immediate Outcome 1.3 The relevance and transversal nature of biosafety is accepted by several sectors

173. All three Immediate Outcomes in this Component were achieved to a high extent (>75%), to the point of achieving the Medium-term Outcome of "*integrating biosafety into national policies, plans and programmes*". This can be attributed to the approval of the National Policy for Biotechnology and Biosafety and other inter-institutional processes.

174. The assumptions that influenced this pathway's intermediate states (Assumptions 1.a, 1.b and 1.c) were linked to timing⁴¹ (the project's 4-year period) and stakeholder participation⁴². Those dependent on timing will likely hold but considering a much longer time horizon than merely 4-years. This finding shows how project implementation dynamics and expectations can be inconsistent with those of policy and governance change processes, a finding that is also true of other NBF Implementation projects⁴³. The assumption that relied on stakeholder involvement on the other hand proved correct in many ways. In an effort to build institutional support for CPB implementation (Immediate Outcome 1.2) and with it, for the National Policy (Immediate Outcome 1.1) and to emphasize the "relevance and transversal nature" of biosafety with other sectors (Immediate Outcome 1.3), the project was very active and effective in raising interests levels in biosafety, increasing technical capacity across different sectors, and in placing the Inter-institutional Biosafety Committee at the centre of these efforts. This resulted in the judicial sector becoming a "player" in biosafety, as well as government and academic institutions recognizing

⁴¹ Assumption 1.b: It will be possible to launch and initiate the implementation of a National Policy for Biotechnology and Biosafety within the project's 4-year period. Assumption 1.c: The Government will be able to agree, within the project's 4-year period, on a common vision or position regarding modern biotechnology and biosafety, for application of the CP.

⁴² Assumption 1.a: Other sectors (in addition to MARN) support the policy and regulatory tasks proposed and take an active role in biosafety by integrating it into their plans, programs and projects, and by empowering existing biosafety committees

⁴³ Terminal Evaluation Reports for the NBF Implementation projects of Costa Rica (2014) and Guatemala (2015). Lead evaluator: Hugo Navajas.

their role in NBF implementation and integrating it into their plans and programmes, which translates into a high level of NBF ownership⁴⁴.

Component 2:

175. This causal pathway aimed to complete the regulatory framework in order to cover all areas required by the CPB (Immediate Outcome 2.1) and to instrumentalize this framework in an efficient manner (Immediate Outcome 2.2). This was achieved to a very high extent, even if aspects relating to the dissemination of the new regulatory elements to interested parties remain pending. Importantly, the Medium-term Outcome will be fully achieved once the regulatory framework is “functioning”.

Component 2
Immediate Outcome 2.2 The application of new regulatory instruments allows El Salvador to act efficiently in biosafety
Immediate Outcome 2.1 The regulatory regime is completed to cover all areas of the CP and is made accessible to interested parties

176. This pathway relied on the same government involvement and support needed in Comp. 1 (Assumption 1.a) and assumed that the best way for other Government entities to delimit their areas of competency was by developing and adopting their own National /Special biosafety regulations (Assumption 2.a). This assumption did not hold, not least because of the time and political effort it entailed, but also because necessity did not so dictate. Prompted in the first instance by political inaction in the regulatory arena, and in the second by the political endorsement of the existing Special Regulation as the guiding framework, adaptive management led to a more practical approach to Comp. 2 that achieved the same Immediate Outcomes at lower risk and in a more realistic timeframe. The need to clarify competencies has been met by means of the LMO-FFP working group that has helped to determine which LMO cases fall within which Ministry's current legislation and competencies.

“The regulatory framework has progressed, we are no longer starting from almost zero, the country is better prepared in case the demand

177. Currently, the regulatory instruments that operationalize the Special Regulation, together with the Scientific Committee as an advisory structure, are all at different stages of approval. Once official, El Salvador’s regulatory framework will be ostensibly more complete than at project start and will enable the country to introduce LMOs in a regulated manner, if it so wishes.

Component 3:

Component 3
Immediate Outcome 3.4 Competent authorities have a decision-making system that is efficient, effective and transparent.

⁴⁴ Source: Project reports, questionnaire

Immediate Outcome 3.1	Immediate Outcome 3.2	Immediate Outcome 3.3	Immediate Outcome 3.5
The clear definition of the functions and responsibilities of competent authorities allows El Salvador to handle any request for LMO use.	A functional administrative system is set up that is responsive to user needs	National capacity for risk assessment and risk management is increased	A locally-run system to process, archive and exchange information is up and running (National BCH).

178. Progress along this causal pathway was prominent, even if two of three Immediate Outcomes show partial (50-75%) rather than high accomplishment. Very good results were generated towards having a *functioning administrative system for handling biosafety requests and decision-making, based on risk assessment and risk management*. This Medium-term

Outcome will be fully achieved, once the administrative system is “functioning”. This means that the coordination between Ministries, the degree of operationalization of the regulatory framework, the technical capacities and instruments in place for risk assessment, and the electronic access to biosafety information generated by the project all enable El Salvador to handle LMO applications and take decisions. The increase in national capacities for risk assessment is perceived as high⁴⁵ and represents a significant change under this Component. Efforts to disseminate the biosafety decision-making system, however, have been timid⁴⁶ and tasks are pending with the nBCH and the “single window”.

179. This causal pathway shares assumptions with Comp. 1 and 2 given its direct relationship with the regulatory framework and the need to clarify NCA functions and responsibilities (2.a) and dependency on government sector involvement (1.a). It also assumed that the private sector would be eager to put forward LMO applications (Assumption 3.a), which did not occur. Several Immediate Outcomes relied on LMO permit requests being presented and biosafety decisions being taken in order for NBF operations to be tested and refined, making Assumption 3.a decisive in this causal pathway. The scope of specific Outputs, and consequently of Immediate Outcomes (3.2 and 3.5), was also modified on the basis of MARN acting as the only NCA.

Component 4:

180. Important progress was made along this causal pathway, with biosafety monitoring, auditing procedures and LMO testing all addressed as part of MARN's regulatory responsibilities. Nevertheless, the pathway's Medium-term Outcome (to have a “functioning” system to monitor, inspect and follow-up on LMO releases) could only be partially fulfilled. Again, putting the required elements in place was within the domain of the project, but putting them to use was not.

Component 4
Immediate Outcome 4.1 Monitoring and surveillance functions are facilitated to ensure regulatory compliance

⁴⁵ Source: questionnaire, interviews

⁴⁶ Sources: interviews, nBCH, Steering Committee minutes

Immediate Outcome 4.2 Setting up an audit system for biosafety allows follow-up actions to be standardized	Immediate Outcome 4.3 Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on Biosafety
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181. Immediate Outcome 4.2 (which aimed to institutionalize biosafety audits and set up LMO detection capacities) was the most successful and led to vital elements of biosafety risk management now being in place in MARN.

Partially fulfilled Immediate Outcomes were either affected by the absence of LMO approvals that would have triggered follow-up actions (4.1) or by its omission from project workplans (4.3). In addition, the reasons for placing Immediate Outcome 4.3 in a Component destined for LMO monitoring and surveillance were unclear. A possible explanation could be the desire to boost local research into the effectiveness of risk management practices, but this seems premature. In fact, assumptions⁴⁷ around Immediate Outcome 4.3 (which links well with Comp. 5, as identified in the TOC reconstruction process) could not be corroborated by project stakeholders.

Component 5:

182. Progress under this Component was mixed, with good advances in information management, excellent results in the promotion of education in biotechnology and biosafety, and moderate progress in stimulating public consultation mechanisms and the study of public perception. Again, the main limitations were the absence of LMO applications and the late-coming institutional uptake of Outputs.

Component 5			
Immediate Outcome 5.1 The institutional and public use of the National BCH node, as an information and participation tool, is increased	Immediate Outcome 5.2 Promoting the safe use of modern biotechnology in the education sector is conducive to increasing awareness and specialization opportunities in biosafety	Immediate Outcome 5.3 There is greater insight into the Salvadoran people's perception of the products of modern biotechnology	Immediate Outcome 5.4 Channels and capacity for carrying out public consultations in biosafety are created.

183. This causal pathway correctly assumed that universities would be interested in mainstreaming biosafety topics into their academic degrees and courses, but was less assertive with regards to permeating research and development (R&D) agendas, as these do not seem to have been influenced by the project or even by a long-term vision for biotechnology development. In the field of education, the project has had a significant impact on the academic sector, and vice versa, with universities supporting the project in many ways, and also taking ownership of biosafety and biotechnology issues. New information has been generated, such as the public perception study and informative documents contained on the nBCH, that needs dissemination (especially beyond the Inter-Institutional Biosafety Committee). For the purpose of information management and the undertaking of public consultations as part of biosafety decision-making processes, other assumptions involving several Ministries did not fully materialize once it was clear that MARN would be the only NCA with these responsibilities.

⁴⁷ Assumption 4.c: The scientific community could become interested in supporting and offering services to the NCA's LMO monitoring and surveillance tasks.

4.4.3 Likelihood of impact

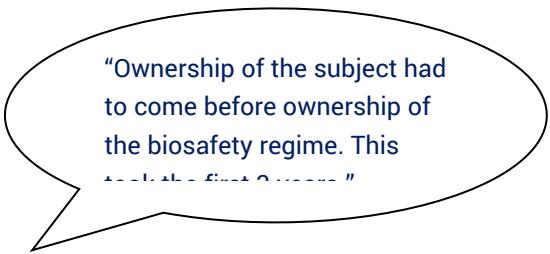
184. The intended Impact, as formulated in the Theory of Change at evaluation, is that "as part of its sustainable development, El Salvador reduces the potential risks to its people and biodiversity associated with commercial and research activities". In order for the project to achieve its goal and intended impact, as well as make a substantive contribution to the GEF's high-level results (as per GEF-4 priorities), El Salvador's biosafety system needs to be operating. This was noted at GEF approval by the reviewer: "As other capacity building projects in biosafety, this one will only deliver measurable Global Environmental Benefits if the NBF is implemented and used". While the GEF review also stated that no immediate global environmental benefits were expected from this grant, to achieve such benefits, El Salvador must put its NBF to use, thus integrating modern biotechnology into its sustainable development agenda.

185. *The project was successful in reaching its Medium-term Outcomes (Specific Objectives) to the extent possible given the challenges it faced in delivering a "functioning" biosafety system.* The Terminal Evaluation found that a suite of robust building blocks was in place, in order for the system to "function" when needed. The main policy, regulatory and institutional needs and mechanisms to operate an NBF have been attended to and are ready or nearly ready to be utilized. Capacities are also available, together with much more procedural clarity than before the project, leading to think that El Salvador has a "functional" -rather than "functioning"- National Biosafety Framework in place.

186. Beyond shifts in project design, three assumptions turned out to be pivotal for project results and conditioned the degree to which the Medium-term Outcomes were achieved:

- Assumption C.1: There is sufficient political will and continued support from NCAs and decision-makers to consolidate the biosafety system,
- Assumption 3.a: The private sector is eager to put forward LMO applications and is supportive of having an operational biosafety framework, and
- Assumption G: The biosafety system can only become operational and fully consolidated once a certain level of awareness, education, participation and access to information on the safe use of modern biotechnology has been attained.

187. While the first two assumptions were either weak or absent, the third assumption took on great significance, confirming the importance of addressing pre-project gaps in awareness, education, participation and access to information. Moreover, this assumption underpins MARN's decision to invest weightily in biosafety capacity building, an area in which the project had significant impact. Greater public and institutional understanding of biosafety was a pre-condition to NBF implementation, so the project offered an opportunity to raise biosafety knowledge levels. Indeed, the capacity building facet of NBF implementation brought more political credits than costs, and offered a "path of least resistance" for executing the project. The result is that a critical mass of professionals and students now exists who better understand the



"Ownership of the subject had to come before ownership of the biosafety regime. This
is the first condition."

technicalities of modern biotechnology and can have a more learned and balanced discussion about biosafety.

188. This Terminal Evaluation esteems that, *once the NBF is implemented, the project's Specific and General Objectives will be met in the short-term*, with a good likelihood of the project's intended benefits becoming a reality. Reaching the project's Intermediate State (or General Objective)⁴⁸ is dependent on a single driver being in place (Driver B), which speaks to the *convergence of both public and private sector interests in implementing a comprehensive NBF*. This driver was a motivating force at the time of project design but dwindled once the current Government initiated its first term (2009-2014). Without political will to take decisions in biosafety or the continued interest of the private sector in presenting LMO permit requests, the project's causal pathways had limited capacity to progress from Medium-term Outcomes (Specific Objectives) to the desired Intermediate State (General Objective). Currently, government interest

189. This Terminal Evaluation found that El Salvador made *good progress towards reaching the project Goal*⁴⁹, favoured by the project's extended duration. Reaching the project Goal presumed *the need to create trust in, and understanding of, the biosafety system*. In fact, this particular assumption in the TOC (Assumption B)⁵⁰ was a much-needed condition, to the point that the first 3 years of the project were dedicated to materializing it. This contributing condition was closely tied to capacity building and awareness raising, and required time to change misconceptions about biosafety.

190. As a result of the low political priority given to biosafety, additional time was needed for authorities to agree that El Salvador was better off with a functional NBF than without. Once this occurred, there were changes in project delivery that translate into improved country ownership and driven-ness.

191. The project undoubtedly had a catalytic role in promoting institutional change and in changing social perceptions regarding biosafety. There was one *unintended effect* identified however: the dissatisfaction caused, among those who had been keen project collaborators, by the drop in stakeholder participation and communications that occurred after the first change of NPC. This left a feeling of despondency and uncertainty among stakeholders, most of whom still wish to be part of an active biosafety agenda. While the project, strictly speaking, catalysed neither replication nor upscaling efforts, it did cause a ripple effect which permeated across several sectors. This effect has sparked an interest in furthering the country's biosafety efforts and ensuring their institutionalization and sustainability.

192. Stakeholder participation has been central to project success, although not all sectors were involved to the same degree or have gained from project results to the same extent. Perception of the project's performance by its beneficiaries was mostly very positive yet varied depending on the level of involvement (e.g. those most closely involved tended to rate the project's performance

⁴⁸ General Objective: El Salvador has implemented and consolidated an operational system for the safe use of modern biotechnology, in agreement with national priorities and international obligations

⁴⁹ Goal: El Salvador can take advantage of modern biotechnology, while ensuring an adequate level of protection to biodiversity and human health

⁵⁰ Assumption B: It will be possible to create, within the project's timeframe, an enabling environment for implementing the safe use of modern biotechnology in El Salvador, which includes instilling confidence in the biosafety system and changing misperceptions.

most favourably) and was not concerned with aspects such as delays, unachieved Outcomes or falling short of project objectives.

193. Mutually beneficial relationships were developed with members of the academic community and CENTA, whereby the project conferred them greater capacities and opportunities, and they facilitated the inclusion of youth while also providing the project with technical expertise. *Appropriation of biosafety and parts of the NBF by these stakeholders has been high. The alliances forged have been strategic and very productive and represent an asset for NBF implementation.* As part of the social capital built by the project, this is a positive example of effective stakeholder participation and cooperation that also contributes to sustainability and the likelihood of impact achievement. However, these relationships are becoming fragmented and are losing momentum and will require certain care to avoid losing force altogether.

194. The private sector clearly has to gain from the project's results, given the possibility of becoming a user of the biosafety system. After the elections, a change of government could re-spark the interest of seed and agricultural companies in presenting LMO permit requests. This prospect reaffirms the need to renew the rapprochement with the private sector, or at least be willing to interact constructively. If the private sector seeks further field trials, project results would be moved up the causal pathways, bringing El Salvador considerably closer to the project's intended Goal and raising the project's likelihood of achieving its intended Impact.

195. There are also other sectors that need to be integrated into the biosafety debate and gender considerations that need to be taken. There is awareness from senior officials⁵¹ of the importance of working with stakeholder groups such as indigenous peoples, local communities and smallholder producers. These groups, and particularly the women in these groups, are recognized as stewards of genetic resources and key players in biodiversity conservation efforts. It is understood that these so far under-represented groups could be impacted by biotechnology applications, directly or indirectly, and should therefore be incorporated as stakeholders in implementing biosafety and access to genetic resources frameworks. As addressing this need is still a pending task, these considerations make no contribution towards achieving the intended impact.

196. Overall, considering progress made in the “Likelihood of achieving Impact” and that most intermediate states were partially achieved, this criterion is rated as Likely.

4.5 Financial Management

197. Financial information was found to be generally complete, with financial reporting duly carried out on a quarterly basis. The financial reporting templates provided to MARN did not require project costs to be reported per activity or per component, so expenditures were reported against standard UN Environment budget lines.

198. Communications between financial management staff at UN Environment (in Nairobi) and the project team at MARN in El Salvador were constant and fluid but not always direct, as the UN

⁵¹ Source: meeting with LMO-FFPs working group including Vice-minister of Environment

Environment Programme Assistant and Task Manager (in Panama), as well as the ANUBIS biosafety project management system, acted as intermediaries. The project's first Financial Management Officer (in Nairobi) had extensive experience with UN Environment's biosafety portfolio and a good level of understanding of execution issues. This facilitated the approval of expenditure reports, and meant the Financial Management Officer could offer guidance and recommendations when involved in adaptive management decisions. In early years, project team members also received capacity building on UN Environment-GEF financial reporting and the use of ANUBIS, directly from the Financial Management Officer, at regional workshops. This support and direct communications were not sustained over time, once the Financial Management Officer changed.

199. Within MARN, fund management was considered highly satisfactory by the last Project Director. Financial audits carried out on a yearly basis, however, revealed in 2013 and again in 2014 and 2015 poor inventory follow-up and storage of fixed assets, affecting in particular the laboratory equipment that had been purchased for LMO detection. The intervention of UN Environment was necessary in order to rectify these deficiencies⁵². No adverse fund management issues were flagged. The project team made efforts to ensure project funds were utilized to cover activities that were in the project workplan or were clearly within the project's scope.

200. MARN was diligent in providing co-financing information as part of regular quarterly expenditure reporting. There was, however, loss of information regarding co-financing after ANUBIS suffered a bug and expenditures including co-financing details that had been logged into the system were lost⁵³. To expedite the data recovery process, when expenditures were again logged into ANUBIS, they were condensed into annual reports without the accompanying details. This means that there was no means to confirm co-financing contributions by source, as back-up files were available neither from MARN⁵⁴ nor from UN Environment. At project completion, overall co-financing contributions by different stakeholder groups was estimated by MARN as part of terminal reporting requirements.

201. Actual co-financing was significantly higher than the amount pledged at project approval: USD 1,598,608 versus USD 1,025,000, which represents 56% more than the initial commitment. The increased contribution is mostly explained by the extended duration of the project, which was at no cost to the GEF but did imply continued co-financing by MARN. Much of MARN's co-financing stemmed from the staff it made available to the project: the NPCs and Project Directors.

202. The three private sector institutions, named as project co-financiers, did not fully meet their co-finance commitments. The project team indicated that in kind co-financing support did materialize at the very beginning of the project (in the form of expert time, information material and assistance with communications) and valued this collaboration at US\$ 40,660 (16% of the original pledge, and 2.5% of the final co-finance total). The private sector's view, however, was that their co-finance pledge did not materialize due to their marginalization from the project, an issue that was

⁵² Sources on ANUBIS: Audit reports for 2013, 2014 and 2015, Report for follow-up on recommendations (PDF) and Letter from Task Manager to MARN (August 2015)

⁵³ Source: interviews (UN Environment staff and MARN project team), ANUBIS records.

⁵⁴ Quarterly report files were provided only for 2011.

brought to the attention of the Task Manager at the time. Despite meetings between the Task Manager and private sector representatives, as well as with MARN authorities, to discuss this issue and make recommendations⁵⁵, the doors to working with the private sector did not open and these entities withdrew from the project. In any case, MARN was able to uphold all original co-finance pledges and exceed them too.

203. Additional co-financing leveraged by the project was first reported in the Final Report presented in 2019. Collaboration with IICA allowed for various cost-savings, and contributions such as the use of IICA facilities and materials can be considered co-finance support. Likewise with the Technological University that undertook a nation-wide public perception study (Output 5.3.2), published digitally and funded entirely by the university research team's budget given their interest in the subject. As an overall estimation, universities and international /regional organizations are reported to have contributed US\$ 92,138 in co-financing (5.7% of the final co-finance total).

204. The overall rating for “Financial Management” is Satisfactory, considering the completeness of project financial information (rated as **Satisfactory**) and communications between finance and project management staff (rated as **Satisfactory**). See the table below:

Financial management components:		Rating	Evidence/ Comments
1. Completeness of project financial information:			
Provision of key documents to the evaluator (based on the responses to A-G below)		S	
A.	Co-financing and Project Cost's tables at design (by budget lines)	Yes	Good level of detail
B.	Revisions to the budget	Yes	
C.	All relevant project legal agreements (e.g. SSFA, PCA, ICA)	Yes	
D.	Proof of fund transfers	Yes	
E.	Proof of co-financing (cash and in-kind)	No	Report of co-financing was available and proof provided by project Outputs and internalization of project management.
F.	A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level)	Yes	Provided by budget lines
G.	Copies of any completed audits and management responses (<i>where applicable</i>)	Yes	
H.	Any other financial information that was required for this project (list):	Yes	Inventory of fixed assets
Any gaps in terms of financial information that could be indicative of shortcomings in the project's compliance with the UN Environment or donor rules		No	
Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the evaluation process		MS	Staff no longer at MARN and UN Env. hindered access to original files not on ANUBIS.
2. Communication between finance and project management staff		S	
Project Manager and/or Task Manager's level of awareness of the project's financial status.		HS	
Fund Management Officer's knowledge of project progress/status when disbursements are done.		S	FMO is reliant on Task Manager having cleared both the progress and financial report

⁵⁵ Source: project reports, Task Manager mission reports

Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.	S	Especially on follow-up of audit reports
Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports.	S	Especially prior to clearance of cash advances
Overall rating	S	

Table 11. Ratings table for financial management

4.6 Efficiency

205. Overall, cost-effectiveness is rated as Satisfactory, whereas timeliness comes out as Moderately Unsatisfactory, which leaves the **Efficiency criterion's average rating at "Moderately Satisfactory"**. The project had two 'no cost extensions' of one year and one of two years, against the formally approved results framework, with project activities/events usually sequenced efficiently and cost-effective approaches also being taken to achieve synergies.

4.6.1 Cost-effectiveness

206. The project scores well in terms of *cost-effectiveness*. It applied cost-saving measures, such as covering NPC costs from MARN's co-financing commitments, and used synergies with related initiatives (e.g. IICA, 1st National Congress) and collaboration with akin institutions (e.g. Universities) as both technical and cost-saving opportunities. These opportunities translated into the leveraging of additional co-finance resources⁵⁶. The project also applied time-saving measures by clustering consultancies into "mega-consultancies" in order to lessen the administrative burden and overall duration of internal approvals. Project supervision by the Task Manager was key in identifying and agreeing on time-saving measures to try to expedite project execution.

207. Cost-effectiveness could be reduced to a small extent by two factors: On the one hand, the identification of certain deliverables (4) as "unnecessary" once their scope was reduced only to MARN. Project funds were consumed in drafting proposals and articulating meetings that, ultimately, did not deliver final Outputs. These "losses" are likely marginal and could be considered part of the costs of adaptive management, so they need not weigh in on the rating for cost-effectiveness. On the other hand, the lack of a consistent workplan to guide planning and budgeting and containing activities that could be traced systematically to the same specific Outputs, may have left room inefficiencies and shifting interpretations. However, this does not seem to have had a notorious effect on project delivery which kept its focus on core project results.

208. The decision to base the NBF primarily on the existing Environment Law and Special Regulation is a cost-effective measure that makes good sense in terms of sustainability too. Thus, inserting the NBF into pre-existing institutional mechanisms allows installed capacities and know-how to be capitalized and operational costs to be reduced.

⁵⁶ Source: Final Report, interviews, questionnaire.

4.6.2 Timeliness

209. The project scores low in terms of *timeliness* given that it required 3 no-cost extensions and took 7.5 years to complete. The project suffered implementation delays from early on, with onerous administrative and approval requirements and low internal support identified as the main obstacles. All questionnaire respondents considered that project delays could have been avoided. Factors that influenced delays included: high staff turnover, slow project start-up, the absence of a Task Manager in the first semester, low political priority for biosafety, a period affected by national elections and government turnover, varying levels of institutional commitment and uneven institutional participation. These findings are common to other NBF Implementation projects⁵⁷ and link into issues of country ownership and driven-ness, project management and stakeholder participation and cooperation.

210. An unfavourable condition at project start-up was the absence of a Task Manager for several months of the first year of project implementation. The project initiated in December 2010 and was without a Task Manager between August 2011 and May 2012. Despite having completed the inception phase and having the support of the UN Environment Programme Assistant in Panama and a Programme Manager in Nairobi, the project team was at a disadvantage without a Task Manager to orient project planning, reporting and strategic actions during this period.

211. The decision taken by MARN (between project approval and start-up) to eliminate the financial management role of the United Nations Development Programme national office may represent a lost opportunity in terms of execution efficiency. This had been contemplated in the project's original design but was changed by decision of the Minister of Environment. In retrospective, externalizing contractual and logistical services could have expedited administrative processes to some extent.

4.7 Monitoring and Reporting

4.7.1 Monitoring design and budgeting:

212. The ProDoc contained sufficient elements to duly orient project implementation: clear Outcomes in the results framework, clear execution arrangements and partnerships, and a *comprehensive M&E Plan with clear targets*. While original indicators were not fully SMART, the mid-term and end-of-project targets expressed very concrete, measurable, attributable and time-bound achievements that compensated for shortfalls in indicator SMART-ness. These targets, combined with the activities contained in the workplans that followed project inception (2011-2013), also compensated -in practice- for the absence of Outputs from the logframe. In fact, the way planned activities together with the project targets were described allowed outputs to be readily identified. The lack of explicit Outputs did however lower the quality of project reporting and monitoring.

213. Monitoring design included a Mid-Term Review and a Terminal Evaluation, for which only limited funds were allocated, possibly explaining why the Task Manager undertook the Mid-Term

⁵⁷ Terminal Evaluation Final Reports for the NBF Implementation projects of Costa Rica (2014) and Guatemala (2015). Lead evaluator: Hugo Navajas

Review herself. The Mid-Term Review was conducted at exactly the mid-point in a 4-year timeframe (end of 2012) but at the time, the project was far from being midway through its execution given that it had only begun to gain traction at the end of 2011.

214. Considering that the project workplan is a key monitoring tool used to programme funds against pre-approved activities and track implementation progress, it is important to have a well-formulated and clearly expressed project workplan. In this case, as explained in section 4.2, the original GEF-approved workplan underwent re-wording and re-structuring during the inception phase, in order to better align with the project's Immediate Outcomes and targets. This would have been sufficient for the project to operate using an appropriate workplan, had it not been that the revised workplan was later returned to its original misaligned and incomplete format, for reasons that are unclear. One possibility is a glitch in the ANUBIS system that invoked the original GEF-approved version. While these changes led to inconsistencies in the way project reports were elaborated, importantly, they did not misguide project delivery.

215. A notable example of this is the inclusion, in the GEF-approved workplan included an activity to draft a *General Law for the Safe Use of Biotechnology* under Outcome 2.1. This deliverable was listed neither as a target, nor as a milestone achievement nor was it described in the approved ProDoc. It had been discarded in the workplan that guided the first project years and was therefore not mentioned in project reports until mid-2013 when the GEF-approved workplan was re-introduced. By this time, the notion of a General Law had long been left behind as both unnecessary (the Special Regulation was considered sufficient) and unfeasible in the lifetime of 4-year project. Progress reports therefore described progress in the regulatory arena without referring to this Law, yet it remained inserted in the workplan and project reports thereafter, with the exception of the PIR 2016.

216. At first view, these discrepancies could seem to indicate intermittency or deviations in the execution of activities, but fundamentally, MARN reported on the same lines of work using different workplan formats whereby the level of correspondence with one format was greater than with the other. In the reporting, the emphasis shifted according to the focus required without real changes to the central areas of work. When the revised workplan was used (2011 to mid-2013), the better the alignment, the clearer the results (and budgeting) pathways and the more effective the monitoring. The use of different workplan versions could have affected annual budgeting exercise but this does not seem to have been the case. Presumably, the project's activities were translated into Annual Operational Plans which were consistently updated with new activities that included costs and desired output.

217. With regards to gender mainstreaming as part of monitoring design, there is generally an absence of sex-disaggregated data in the project, with two exceptions: the Mid-Term Review does highlight a very balanced gender distribution among project consultants and staff, and the public perception study (carried out under Component 5) remarks on the different responses obtained from men and women to questions concerning biotechnology products. The latter is a good basis for further understanding the gender-dimensions of biosafety, even if this issue was not taken up further in the project, which was somewhat gender-blind. Very few elements therefore point to gender monitoring and reporting in this project, despite the fact that the UN adopted a system-wide Policy on Gender Equality and the Empowerment of Women (2006) and its corresponding action plan (2012), and the GEF developed its own Policy on Gender Equality (2017). If the list of

interviewees for this Terminal Evaluation (Annex 2) is viewed as a proxy indicator for gender representation in the project, then a relatively balanced group of men (54%) and women (46%) participated in the project.

218. The overall rating on this sub-criterion was “Moderately Satisfactory”.

4.7.2 *Monitoring of project implementation*

219. Project targets, activities, risks and expenditures were tracked as part of regular project reporting. However, the project got off to a slow start and was considered “at risk” as early as mid-2012, due to implementation delays. A key challenge in initiating execution was the absence of a UN Environment Task Manager between mid-2011 and mid-2012. Back-stopping improved once a new Task Manager came on board who was proficient in biosafety and actively sought to keep the project on track and accelerate its execution. Despite taking a stronger foothold, the project still required the preparation of a first Risk Management Plan following a mission to El Salvador in October 2012. The last update to the Plan (Feb. 2016) was substantiated by the 2015 Project Implementation Review (PIR) and triggered by MARN’s request for a 2nd no-cost extension.

220. The role of UN Environment was critical in facilitating monitoring, reporting, communications and adaptive management. The Task Manager provided good technical support and facilitative supervision and was able to emphasize project priorities, assist in the search for solutions, and liaise with senior officials and authorities as well as the private sector co-financiers in times of need⁵⁸. It does seem however that less attention was paid to the consistency of reports and workplans.

221. Monitoring by the Task Manager included regular country visits to El Salvador. Risk Management Plans were monitored by means of the PIRs, and despite the Task Manager pressuring MARN authorities to take action to hasten project execution, several reports attest to very slow progress in redressing the issues at risk. The involvement of the Fund Management Officer during the early years was also considered beneficial by both the project team and the Task Manager. The Fund Management Officer was involved in adaptative management decisions, often providing advice on planned budgetary reallocations⁵⁹.

222. Project M&E was circumscribed to project reporting and to Task Manager supervision; no specific spaces were created (beyond this Terminal Evaluation) for reflecting on lessons learnt or experiences from the project. Monitoring consisted mostly of tracking progress and expenditures, with little room given to re-visiting project results or improving project management and monitoring tools such as the workplan. In consequence, no revisions were made to the project’s results framework, workplan (except for updating the calendar) and M&E Plan, even when project Risk Management plans and periodic reports attested to the need to streamline project activities and targets in order to keep only those deliverables and results that were most necessary /strategic and feasible. In this regard, opportunities for stock-taking and justifying substantive changes in

⁵⁸ Sources: Task Manager missions reports, project reports, PIRs including Risk Management plans

⁵⁹ Sources: interviews, questionnaire

project design, such as the Mid-term Review and the PIRs, were not taken advantage of. Moreover, adaptive management decisions do not seem to have involved the Steering Committee and were not systematically recorded except through specific indications in project reports (e.g. the decision to set up LMO detection equipment in MARN instead of CENTA).

223. **Steering Committee:** This Committee, also called the Inter-institutional Biosafety Committee, was kept informed of project progress including delays in implementation, level of budgetary execution, and planned activities (e.g. upcoming consultancies, next annual workplan, etc.). However, the Committee was only loosely involved in project monitoring. Interestingly, its role and constitution was perceived differently, depending on the participant. Evidence of official institutional nominations to the Committee was found for only one person. There were cases where participation had begun on a personal basis and evolved into institutional participation. It is common practice for the UN Environment Task Manager to be a Committee member, sometimes presiding the Committee, but this was not the case here. Efforts by Committee members, together with the new NPC assigned in 2014, to have the Committee formalized, did not prosper⁶⁰.

224. Many Committee members were unable to answer questions concerning the oversight role of the committee. Of most concern were the low ratings given to the Committee's involvement in: (a) keeping MARN informed of any risk or change of circumstances that could affect the project; (b) participating in the annual progress, budget and work plan reviews; (c) making recommendations to MARN on the need to review aspects of the Logical (results) Framework or the budget; and (d) advising MARN on improvements in the management and performance of the project. Altogether, these findings seem to denote that participation in the Committee was not constant, was not truly institutionalized and was more technical and consultative than oversight and performance-oriented.

225. In conclusion, project implementation monitoring occurred in established time frames but was not used to its fullest potential, given that most of the emphasis was on project Risk Management and less on making the best use of project monitoring and feedback mechanisms, and opportunities for project finetuning. **The overall rating on this sub-criterion was "Moderately Satisfactory".**

4.7.3 *Project reporting*

226. Regular reporting comprised annual PIRs (covering from July of one year to June of the next), half-yearly progress reports (July-December), quarterly expenditure reports, and financial audits for each execution year, in compliance with GEF and UN Environment requirements. Project reports were duly sent to UN Environment, approved (signed), and uploaded onto ANUBIS with financial reports generated by loading expenditures directly onto ANUBIS. *All reports were found to be complete with the exception of one missing half-yearly progress report* (for Jul-Dec 2015) and the final audit which would take place as part of terminal reporting requirements.

⁶⁰ Sources: interviews, Steering Committee minutes (24 March 2014) and email exchanges.

227. Once its workings were well understood by the project team, the use of ANUBIS to upload and approve all project reports proved useful. It allowed the Task Manager, Programme Assistant and NPC to constantly monitor project progress and share information. The Project Director (at MARN) and UN Environment's Financial Management Officer in Nairobi also had access to the system. ANUBIS also served as a repository for project Outputs (draft and final versions), Steering Committee minutes, and other supporting documents.

228. Several inconsistencies were found in project reporting, especially when reporting on progress made on individual activities ("project implementation progress") in order to achieve Outputs. Given the lack of approved Outputs, activities were reported against Outcome indicators, or the Immediate Outcomes themselves, or even the Component titles, instead of Outputs. In addition, activities themselves were not consistently reported, as two workplan versions were used interchangeably throughout the project period. The version that prevailed the longest (mid-2013 to 2017) was the GEF-approved version, instead of the improved version introduced at the project onset (2011-mid 2013).

229. Though thematically, both workplans showed areas of correspondence and were comprehensive enough to cover the main activities required to deliver the project's core results, differences in structure and scope between these two versions generated inconsistencies in progress reports, which could have been redressed as part of annual workplan review exercises. The main consequence of this is that, after mid-2013, annual workplans omitted the activities related to certain Immediate Outcomes, in particular 1.3, 3.3, 3.4, 3.5 and 4.3⁶¹, with the same omissions occurring in Half-yearly Progress Reports as well as PIRs after mid-2013. Nevertheless, most of these lines of work did not disappear altogether, as the more critical activities were taken up (and reported) under other Outcomes. For e.g. activities to increase capacities in risk assessment and risk management, which corresponded to Outcome 3.3, took place under Outcome 3.2. Some of the missing Outcomes however remained "in the shadows" with respect to the others (e.g. Outcome 4.3 aimed at influencing the biotechnology research agenda).

230. It seems that adjustments were inadvertently introduced into the end-of-term targets in the PIRs for financial years 2016 and 2017 ("progress toward achieving the project objective" tables) whereby the desire was likely to express the project targets (which were comparable to Outputs) as a function of what had been achieved. This can be understood in the context of static reporting formats that were incomplete or misaligned, and had not been updated or revised over time and thus fell short in capturing the project's true results pathways. In effect, adaptive management and even results-based management should have prompted the fine-tuning of key project monitoring tools such as the workplan and the results framework, an exercise that could legitimately have been triggered by either the executing or implementing agency.

231. Despite the inconsistencies detected, progress still occurred in relation to the corresponding Immediate Outcomes, with important Outputs being produced in each case. These

⁶¹ OUTCOME 1.3: The relevance and transversal nature of biosafety is accepted by several sectors. OUTCOME 3.3: National capacity for risk assessment and risk management is increased. OUTCOME 3.4: Competent authorities have a decision making system that is efficient, effective and transparent. OUTCOME 3.5: A locally-run system to process, archive and exchange information is up and running National BCH. OUTCOME 4.3: Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on biosafety.

inconsistencies were clearly aggravated by the fact that the project lacked a clear list of Outputs, utilized two static workplan formats, and had high NPC turnover, but were to some extent compensated by results-based management that prioritized the core requirements of an NBF and thematic overlaps between Components (e.g. Immediate Outcome 3.1 was often omitted from workplans but covered as part of 5.1). Even if these issues likely hindered the systematic monitoring of activities, they were not signalled by the Task Manager as an issue.

232. With reporting found to be mostly complete, yet showing inconsistencies generally derived from project design deficiencies and a lack of disaggregated data (by vulnerable /marginalized groups or gender), together with evidence of substantial collaboration and communication between the project team and UN Environment staff, **the overall rating on this sub-criterion came through as “Moderately Satisfactory”.**

4.8 Sustainability

4.8.1 Socio-political Sustainability

233. The project's significant contribution to biosafety capacity building and public awareness helped to shift social perceptions regarding biotechnology in general, and LMOs in particular. This constitutes an important contribution to the socio-political sustainability of the NBF, as a better understanding of biosafety is a pre-requisite for effective LMO management. Those who, as a result of project efforts, have a better grasp of what biotechnology and biosafety entail are mostly technical staff and middle managers from different disciplines and institutions, with some senior officials and authorities also sensitized.

234. While many individuals in key sectors showed a high level of interest and commitment over project issues, this did not always translate into institutional involvement. Some interviewees mentioned that their authorities were not always tuned into, or in agreement with, what was taking place on a technical level with regards to biosafety, leading to inaction, different positions and low institutional ownership. This was generally outside of MARN, but at times (pre-2016), within MARN too.

235. Sectoral interests in biosafety are determinants of NBF sustainability. The private sector is believed to be the most likely to continue with *individual* capacity development efforts, followed by the academic /scientific sector. In considering whether there was sufficient government and stakeholder commitment to implement and enforce the different components of the NBF, most respondents believed that commitment was low, an outlook that was likely influenced by the lack of biosafety regulatory implementation in the last 10 years.

236. The change of government (June 2019) places a veil of uncertainty over the political sustainability of project Immediate Outcomes. The project's experience revealed that political ideology can greatly influence the level of ownership, interest and commitment towards biosafety shown by government authorities. However, there is a positive feeling among stakeholders that a new government could represent an opportunity to re-open or boost the biosafety agenda. This would favour the evaluation criterion of “Country ownership and Driven-ness”, as the possibility of new authorities taking decisions on LMOs would be a driver of change along the project's causal

pathways (taking Outputs up to fully accomplished Immediate and Medium-term Outcomes and onto intermediate states) and would clearly contribute to the NBF's socio-political sustainability too.

237. Overall, the sustainability of project outcomes is seen as moderately dependent on social/political factors. Eventually strong ownership, interest and commitment awoke among government and other stakeholders, including decision-making levels, even though this ownership could shift based on the change of government programmed for June 2019. The approved National Policy for Biotechnology and Biosafety serves to buffer eventual changes in the social/political context. **With this in mind, this sub-criterion has been rated as "Likely".**

4.8.2 Financial Sustainability

238. NBF implementation undoubtedly requires financial resources yet has been made sustainable in MARN, by integrating biosafety management under the umbrella of the Environment Law, specifically the Environmental Assessment System. This system covers the environmental impact assessments, environmental permits, public consultation processes and environmental audits required by the Special Regulation. It is therefore assumed that in applying the Special Regulation, any operational costs, such as those required to process any eventual LMO permit requests or for the LMO detection laboratory to operate, will be covered by MARN's regular budget.

239. Questionnaire respondents considered that the continuity of project results and their impact depended to a high extent on continued financial support. However, when asked how likely adequate financial resources were to be made available to ensure NBF implementation, the majority considered this likelihood to low. These views may be a reflexion of the low level of political support perceived by project stakeholders.

240. In general, the evaluation finds that sustaining project outcomes is moderately dependent on continued financial flows, a good portion of which will derive from application of the Environment Law and other sectoral regulations. **This leads to a "Likely" rating for this sub-criterion.**

4.8.3 Institutional Sustainability

241. The level of institutional sustainability was found to vary among sectors, with the government sector showing the highest sustainability. In terms of institutional capacity, MARN has had the most to gain (acquiring LMO detection equipment and developing a series of biosafety management tools), with other institutions also gaining in expertise (mostly at the level of individuals). MARN must uphold its legal obligations both as CPB Focal Point and the National Competent Authority for implementing the Special Regulation, which inherently confers sustainability. In addition, biosafety is being institutionalized in MARN by means of internal restructuring (currently ongoing), dedicated human resources and a web platform for facilitating LMO-related processes.

242. Institutional sustainability is also being reinforced through *growing inter-ministerial coordination and involvement at the level of senior advisors and decision-makers*. The working group with MINSAL, MAG, MARN and Consumer Defence, recently created to define proceedings in relation to LMO-FFPs, is proof that biosafety has been taking root in key government institutions. This working group reports back to a high-level governance structure (the National Council for Food and Nutritional Security) which has been operating since 2009 and will likely continue addressing biosafety issues as more becomes known about LMO-FFP imports and local consumption.

243. Assurances have been made, by the current Minister of Environment and Vice-Minister respectively, that *the National Policy shall be launched, and the Scientific Committee officialised* and endorsed by the three main Ministries, prior to the change of government (expected mid-2019). These priorities are determinant in terms of sustainability. The future implementation of the National Policy, which will necessarily involve both public and private entities, should contribute strongly to institutional sustainability. In turn, operationalizing the Scientific Committee, which is a formal inter-sectoral structure, will reinforce institutional sustainability both within government and other sectors (academic and private sectors).

244. The *uptake of biosafety and biotechnology by universities* also confers sustainability to the NBF. Having young professionals being formed in these topics ensures a better, more science-based prospect, for biosafety implementation in the future. With one university now offering a biotechnology-oriented career (Agrobiotechnology Engineering at the University José Matías Delgado, Faculty of Agriculture and Agricultural Research⁶²⁾, and professors /teachers having included biosafety topics in their courses, it is possible that others may follow suit. Such a catalytic effect would greatly strengthen the institutional sustainability of biosafety in the academic sector.

245. The *biosafety capacities created within the judicial sector* are also an important sustainability factor. This sector is traditionally excluded from biosafety issues, even though judges and their support staff ("peritos judiciales") are key players in upholding environmental regulations and ensuring that potential damage to the environment does not go unnoticed or unmitigated. The specific training provided to this sector by the project, was a notable contribution to NBF implementation and its long-term viability.

246. Perception in relation to institutional sustainability was varied and ambiguous among stakeholders, likely due to lack of knowledge (beyond MARN) concerning the full suite of frameworks developed by the project. Questionnaire respondents considered that academic /scientific institutions were the most likely, followed by government institutions, to continue with *institutional capacity development efforts*. Overall, the evaluation found that project outcomes were moderately dependent on institutional sustainability, with approval of the National Policy, adoption of regulatory instruments (including the Scientific Committee), uptake of biosafety by the education sector and in the food security agenda, and increased capacity of and support by relevant individuals (including members of the judicial sector) all providing strong means to sustain/support the institutionalisation of direct outcomes, even if some of these still needed to move into implementation. **As a result, this sub-criterion was rated as "Highly Likely".**

⁶² <https://www.ujmd.edu.sv/carreras-universitarias/ingenieria-en-agrobiotecnologia/>

5. Conclusions and Recommendations

5.1 Conclusions

247. In relation to the ***Key Strategic Evaluation Questions*** (shown in section II), findings show that the project has indeed enabled El Salvador to establish the “building blocks” of a functional and responsive NBF that, once operating, can address possible risks to national and regional biodiversity from unregulated exposure to LMOs (***question A***). What the NBF comprises and which aspects are pending in order to become “fully” functional and responsive” are described in sections V.D.i and ii. The project has also enhanced national institutional and technical capacity and awareness amongst key actors for the effective implementation of both the NBF in general, and the National Policy on Biotechnology and Biosafety in particular (***question B***). This occurred to a high extent and is a relevant sustainability factor, as explained in sections 4.4 and 4.8.

248. In regard to project Outputs, many did have the weight of scientific authority and credibility necessary to influence policy makers and authorities in line Ministries (***question C***), yet in this case, additional (and more political) influences also came into play in promoting Output adoption and official use. Project deliverables were considered of good technical quality and relevance, and sufficiently credible to constitute valuable contributions to biosafety management, particularly for risk assessment and risk management. This is described further in section 4.4.1. Lastly, Outcome indicators were verifiable, as determined through the TOC reconstruction process. By covering the 5 main pillars of a functional NBF, they adequately record progresses towards the achievement of project objectives, as well as the obligations under the Cartagena Protocol (***question D***).

249. A summary of the evaluation criteria ratings is presented in

250. Table 9 below.

Criterion	Summary Assessment	Rating
A. Strategic Relevance		HS
<i>1. Alignment to UN Environment's MTS and Programme of Work</i>	The project aligns well with the 2010-2013 Medium-Term Strategy (MTS) under which it was approved, and even with the environmental governance objectives of subsequent strategies (2014-2017 and 2018-2021). It is also responsive to the Bali Strategic Action Plan and was able to tap into south-south cooperation.	HS
<i>2. Alignment to Donor/ GEF strategic priorities</i>	The project aligns fully with the GEF's Strategy for Financing Biosafety (Dec 2006) and with Strategic Programme 6 of Strategic Objective 3 of the GEF-4 Biodiversity Focal Area (July 2007).	HS
<i>3. Relevance to regional and national environmental priorities</i>	The project contributed to the implementation of several national policy frameworks, and to clarify and take steps towards the operationalization of pre-existing regulatory frameworks for biosafety. It also shed light on trade related aspects (e.g. the import of basic grains that can be LMOs) stemming from regional Free-Trade Agreements to which El Salvador is bound.	HS

Criterion	Summary Assessment	Rating
4. Complementarity with existing interventions	The project achieved synergies and cost-savings through complementarities with the Interamerican Institute for Cooperation in Agriculture's Central American Biotechnology and Biosafety Initiative and by participating in the UN Environment-GEF phase II global Biosafety Clearing House project.	HS
B. Quality of Project Design	The project's design showed sound logic, capturing all the elements needed to build and operate a comprehensive National Biosafety Framework. Other design strengths included a robust stakeholder analysis, situation /problem analysis and Monitoring & Evaluation Plan. Its main design weaknesses were the absence of Outputs from the logical framework, a misaligned workplan and overly ambitious Immediate Outcomes that were highly dependent on external factors (private and public sector decisions). The project's responsiveness to human rights and gender equality was moderate, in part due to few ProDoc requirements to this effect.	MS
C. Nature of External Context	A strong shift occurred in the project's political context from when it was designed (2008-2009) to when it commenced execution (2010-2011). The government that came into office in 2009 gave low political priority to biosafety and this had significant repercussions on the project's performance.	MU
D. Effectiveness		S
1. Delivery of outputs	Despite the lack of predefined Outputs and the need to adjust the scope of many of these, the project ultimately delivered the products and services most needed in order to arrive at a functional biosafety system. This included key deliverables in the policy, regulatory /administrative, risk assessment /decision-making, information management and educational arenas. Having reconstructed the project's final set of Outputs, 70% were found to have been fully achieved and 13% partially achieved, many involving ownership by other sectors and institutions.	MS
2. Achievement of direct outcomes	The project shows high Immediate Outcome achievement rates, with 65% accomplished to a high extent and 35% partially accomplished. These rates take into account adjustments in scope that arose early in implementation. The most notable achievements were in the policy arena, with biosafety being integrated into other sectors as well as a National Policy for Biotechnology and Biosafety; in the regulatory arena, with existing regulations being improved and instrumentalized through procedures, guidelines and formats; in the risk assessment and risk management fields with the acquisition of greater technical and technological capacities; in the educational arena with biosafety specialization opportunities arising through the project; and in the field of information management. While it is true that not all assumptions held for progressing from project Outputs to Immediate Outcomes, this could have been redressed through adjustments in project design. The Immediate Outcomes that were the most important for attaining intermediate states were fully achieved.	S
3. Likelihood of impact	The project successfully reached its Medium-term Outcomes (Specific Objectives) to the extent possible given the challenges faced in delivering a "functioning" biosafety system when the decisions implied in this were outside the domain of the project. This means that most intermediate states were partially achieved and that the project is well poised to achieve its intended impact.	L
E. Financial Management		S

Criterion	Summary Assessment	Rating
<i>1.Completeness of project financial information</i>	Project budget was available by funding sources and by component, as well as re-approved budgets and no-cost extensions. Proof of fund disbursements (Remittance Advice) from UN Environment to the executing agency was available, as well as quarterly expenditure reports, annual audits and management responses, and co-financing / in kind contribution reports.	S
<i>2.Communication between finance and project management staff</i>	Both executing and implementing agency officers had strong awareness of the project's financial status, and had mechanisms in place to ensure disbursements were made against approved financial and technical progress reports. There was also evidence that the FMO was proactive in resolving financial issues, and supporting budgetary reviews. Financial reports were reviewed by both finance and project staff prior to submission.	S
F. Efficiency	Cost-effectiveness is rated as Satisfactory, whereas timeliness comes out as Moderately Unsatisfactory, which leaves "Moderately Satisfactory" as the average rating for Efficiency. The project had two 'no cost extensions' of one year and one of two years against the formally approved results framework, with project activities usually sequenced efficiently and cost-effective approaches also being taken to achieve synergies and NBF sustainability.	MS
G. Monitoring and Reporting		MS
<i>1. Monitoring design and budgeting</i>	A thorough Monitoring & Evaluation plan was developed, that contained clear targets and indicators, and ensured the inclusion of Mid-term and End-of-term review/ evaluations. Inconsistencies were observed in the way project reports were elaborated, based on project design deficiencies, yet importantly, these did not seem to have misguided project delivery.	MS
<i>2. Monitoring of project implementation</i>	Project implementation monitoring occurred in established time frames but was not used to its fullest potential, given that much emphasis was on project Risk Management and less on making the best use of project monitoring and feedback mechanisms, and opportunities for project finetuning. The Steering Committee especially was found to have a weak oversight role.	MS
<i>3.Project reporting</i>	Reporting was mostly complete, aided by the ANUBIS system, although a learning curve was required to use this system and a bug affected project records. Inconsistencies were noted in project reports, mostly derived from project design deficiencies (different workplan versions, no approved Outputs). There was evidence of substantial collaboration and communication between the project team and UN Environment staff. Reports, however, did not disaggregate data by vulnerable /marginalized groups or gender.	MS
H. Sustainability *		L
<i>1. Socio-political sustainability</i>	The sustainability of project outcomes is moderately dependent on social/political factors; there is strong ownership, interest and commitment among government and other stakeholders, including decision-making levels, even though this ownership might shift based on the change of government programmed for June 2019. The approved National Policy for Biotechnology and Biosafety serves to buffer eventual changes in the social/political context.	L
<i>2. Financial sustainability</i>	Sustaining project outcomes is moderately dependent on continued financial flows, a good portion of which will derive from application of the Environment Law and other sectoral regulations.	L

Criterion	Summary Assessment	Rating
<i>3. Institutional sustainability</i>	Project outcomes show moderate dependency on institutional support. Approval of the National Policy, adoption of regulatory instruments, uptake of biosafety by the education sector and in the food security agenda, and increased capacity of and support by relevant individuals (including members of the judicial sector) all provide strong means to sustain/support the institutionalisation of direct outcomes, even if some of these still need to move into implementation.	HL
I. Factors Affecting Performance		S
<i>1. Preparation and readiness</i>	Evidence points to a comprehensive inception meeting being held and reported on; a revised annual workplan being developed with appropriate detail (but no costing); a Steering Committee being established with ample though not comprehensive representation; partner capacity and support being confirmed; staffing mobilisation occurring in a timely manner; governance arrangements being established; PRC recommendations being adopted; and having a 6-9 month period between project approval and first disbursement.	MS
<i>2. Quality of project management and supervision</i>	Evidence shows a Steering Committee was established and functioning moderately well; teams involved in implementation were functioning (although more involvement from senior management would have been desirable); a good working relationship was established between the project team and the UN Environment Task Manager, Fund Management Officer and Programme Assistant; staff turnover was sometimes accompanied by transparent handover processes and information exchanges; the majority of project staff had capacities aligned with project requirements and were appropriately located for project execution; UN Environment, as Implementation Agency, and MARN as Executing Agency provided sufficient leadership towards achieving the planned outcomes and used adaptive management to respond to execution challenges and contextual changes.	MS
<i>3. Stakeholders participation and cooperation</i>	Evidence suggests that a good stakeholder analysis was carried out; that the project team made significant efforts to promote stakeholder ownership; that consultations and/or communications with stakeholder groups were highly effective with some yet poor with others; that good collaboration and constructive exchanges were achieved with some stakeholder groups; and that note was taken of environmental, social and economic impacts of biosafety on marginalized groups.	MS
<i>4. Responsiveness to human rights and gender equity</i>	The project is responsive to human rights in as far as implementing the Cartagena Protocol through an NBF is a means to uphold the right to a healthy environment and reduce risks to human health. The project does not mainstream gender equality through the use of disaggregated data, in part because this was not required in the ProDoc formats, but does recognize women's producer groups as a key stakeholder group for NBF implementation	MS
<i>5. Country ownership and driven-ness</i>	Evidence suggests that all Government ministries /public sector entities that are essential for moving from Outputs to Immediate Outcomes and onto Intermediate states took a leadership role in: providing in-kind co-financing to the project; strategically guiding project delivery; endorsing / accepting project results; and driving change to achieve higher level results.	S
<i>6. Communication and public awareness</i>	Evidence shows how key audiences have become aware of the project's main messages; how communication activities and	S

Criterion	Summary Assessment	Rating
	channels were audience-targeted, frequent over the life of the project and adequately budgeted; how web-based technologies have been used to facilitate communication and information management; and how public awareness efforts have been largely effective in driving change towards results beyond Outputs. Experience sharing occurred between NBF project managers from the region and with international experts who contributed to building capacities and information exchange.	
Overall Project Rating		S

Table 9. Evaluation Criteria and Ratings

→ **Project Management, Stakeholder Participation and Country Ownership and Driven-ness are inextricably linked in this project and condition the extent to which stakeholders consider the project to be a success.**

251. These three factors were found to affect project performance (both positively and negatively), as well as shape stakeholder perceptions regarding project performance. Due to the project's political context, they are very much inter-linked. "**Country ownership and driven-ness**" was directly influenced by the prevailing political climate and shifted from low to moderate, first limiting the project's performance and Output uptake, and then raising it. Therefore "**Country ownership and Driven-ness**" had its ups-and-downs but, ultimately, took hold in several key sectors -including government- leading to a "**Satisfactory**" rating.

252. The importance of political leadership comes through, when considering this rating. Until there was political direction, no amount of project team efforts or Task Manager interventions would resolve the project's political impasse and it would continue to face difficulties in delivering results at the pace and depth required. Once there was regular engagement with decision-makers and senior advisors, however, the project was able to deliver policy and regulatory feats. Much of this pivoted on MARN taking a leadership role, which it achieved through changes in project management, driving inter-institutional coordination for approval of the National Policy and raising awareness in other Ministries about LMO-FFPs entering the country unregulated. The much-needed political dialogue that ensued gave way to greater acceptance of institutional roles and responsibilities in biosafety and brought home the importance of inter-Ministerial coordination. The resulting increase in country ownership is having a positive impact, driving progress along causal pathways (particularly in Comp. 1, 2 and 3). However, 2019 being an election year brings uncertainty as to whether this political support (which in itself is an important achievement and is as fundamental to CPB implementation as it is to the future of the National Policy) will transcend into the next government.

253. The other factors relate to "**Project Management**" and "**Stakeholder Participation**" and account for important changes in project dynamics that affected performance. These changes came into play across the 3 phases required for the project to deliver: a first phase (3-years) to create "**the enabling environment**" (which was as much political as it was technical), a second

phase to instrumentalize the Special Regulation, and a final phase (2-years) to boost political coordination and approve of the most strategic elements of the NBF.

- The first project phase (2011-2014) focused on capacity building (workshops, training courses, conferences), on opening up the debate on biosafety, on achieving coordination and stakeholder buy-in, and on drafting proposals /Outputs (few of which were given internal clearance at the time). This foundational learning phase was highly appreciated by all project beneficiaries and was necessary to change misperceptions about biosafety. Yet project efforts during this phase were given low priority in MARN, with the project facing execution challenges as a result⁶³. While participation dynamics were strong, institutional involvement was mostly at the technical and operational level, was not constant, and had little political influence.
- The phase that followed (2014-2015) was much less visible, as it shifted to internal tasks within MARN (such as instrumentalizing the Special Regulation) and had little of the participation dynamics of the first phase. From April 2015 onwards, responsibility for the project was taken up by a Senior Advisor, who acted as both NPC and Project Director. Despite only one staff with partial dedication to the project, a series of politically-weighted tasks were concluded in this period (such as the approval of the National Policy), political ties with MAG, MINSAL and Consumer Defence began to consolidate, and biosafety was also integrated into educational curricula. However, little is known of these achievements, as dissemination and stakeholder participation decreased significantly after 2014, given limitations in project staffing.

254. As beneficiaries of multiple capacity building efforts, most stakeholders had a positive perception of the project, but changes in project management led to a marked decrease in stakeholder participation and affected the way the project was “seen from the outside”. These changes also marked an inflection in the priority given to Output delivery and uptake. It appears that having an NPC closer to the political sphere allowed political interest in biosafety to grow (most visibly from 2016 onwards) and contributed to greater Output ownership and NBF sustainability. Nevertheless, stakeholder perception of overall project performance is tainted by the degree of inclusion or marginalization from the project, by lack of information regarding project progress after the first phase, and by the political climate (and until recently, low country ownership and driven-ness) that has prevailed over the last 10 years.

→ *The project was able to put in place all the vital elements of an operational NBF, even if it lacked the power to implement it. El Salvador is now well poised to take biosafety decisions and handle the regulated introduction of LMOs into its national territory.*

255. The project made very good progress in all of its Components (5 causal pathways), generating the most crucial elements of a functional NBF. The project was able to drive policy, regulatory, technical and educational processes forward, and deliver all substantive project results.

⁶³ Sources: project reports, PIRs, Task Manager mission reports

Even with an advanced baseline situation, the NBF is now more robust, comprehensive and with stronger government and academic sector ownership than at project start.

256. The National Policy for Biotechnology and Biosafety is a cornerstone of the NBF that represents a significant project achievement. While the approval process has been overly extended, there is evidence of political support that is conducive to political and institutional sustainability. The political weight of a policy that was approved by Presidential decision, rather than simply by Ministerial decree, is far greater. It means it is official not only for MARN but for all government actors and offers better prospects for sustainability. This speaks highly of MARN's efforts and foresight, and gives purpose to the project's extended duration.

257. The project effectively consolidated the regulatory framework by positioning the country's existing regulation and its designated NCA as sufficient for dealing with LMOs, once MAG and MINSAL were included in decision-making. By discarding further sectoral regulations, the project took a path that was much more politically viable that focused on instrumentalizing the Special Regulation. Likewise, MARN did well in putting together a robust administrative framework that would allow for handling of LMO applications, decision-making based on risk assessments, and better information management and public participation, while also building technical capacities for risk management and raising public awareness and understanding of biosafety. Attending to these needs was comfortably within the project's domain, carried few political risks, and brought tangible improvements in capacity.

258. The enabling conditions (frameworks, instruments and technical capacities) for implementing the NBF and complying with the CPB are therefore in place. If operationalization of the system has not yet happened, it is because it depends on political and private sector decisions that are external to the project. If the change of government (mid-2019) re-sparks the private sector's interest in requesting LMO permits, then further progress may be possible along the project's causal pathways and could lead to full achievement of all Medium-term Outcomes in the short-term.

→ *The project has endowed El Salvador with considerable “capital” for biosafety management which is ready and waiting to be put to use and is a good basis for NBF sustainability.*

259. Human capital for biosafety has increased through the project's extensive provisions for training, awareness-raising and exchanges, and will be available in the future as a result of biosafety and biotechnology now being taught in universities, and potentially in the medium-term, in schools too. A critical mass of better-informed stakeholders and duty-bearers now exists that will increase with time, conferring socio-political sustainability to the NBF.

260. Infrastructure acquired in order to have LMO detection capacity means that technological capital is also ready for use by MARN, to ensure regulatory compliance and carry out surveillance actions. This type of equipment is scarce in El Salvador and takes MARN's enforcement capacity to a new level. Now that electronic access to information is the norm, the “single window” for LMO applications is also an investment that facilitates transparency as well as MARN's regulatory role as NCA.

261. Looking across at stakeholders, social capital has also been built through alliances and working ties with members of the academic and scientific community, as well as regional

organizations such as IICA, and through inter-Ministerial coordination at the political level. In early project years, ties with the academic sector were stronger and broader than they are today, as some degree of "erosion" has resulted from low stakeholder involvement in later project years. Conversely, ties between Ministries strengthened in later project years, once authorities became more receptive to biosafety, creating a work dynamic and political alignment that now gives sustenance to the NBF and its sustainability.

→ *Project results can be considered likely to be sustainable, even if the forthcoming change of government causes uncertainty.*

262. The combination of increased human resources to support biosafety (current and future), appropriate institutional frameworks and political direction to foment biosafety, and continued actions and financing in biosafety stemming from implementation of the regulatory framework and eventually the new National Policy, provides a solid basis for NBF sustainability in El Salvador.

263. Stakeholder perceptions regarding NBF sustainability show traits of uncertainty in light of the presidential elections in Feb 2019 and prior experience with governmental reticence towards biosafety. Indeed, much now hinges on the extent to which the biosafety agenda is taken up by the incoming government and whether the new authorities will be willing to take biosafety decisions. Nevertheless, the ensemble of NBF components and enabling conditions created by the project, should be sufficiently robust to set the NBF on a continued trajectory in time and withstand further political changes.

→ *Financial management was conducted successfully, despite obstacles and pressures faced by the project team, and cost-effective measures were applied that raised project efficiency.*

264. The absence of a UN Environment Task Manager in the first months of project execution, audit findings concerning the poor storage of fixed assets (laboratory equipment), ensuring the planned use of project funds, loss of information on ANUBIS (co-financing and expenditure details), and co-financing commitments not being met by the private sector, were all challenges faced by the project team in relation to financial management and reporting. The team responded to each challenge appropriately, with support from the UN Environment Task Manager, Fund Management Officer and/or Programme Assistant, as needed in each case.

265. Despite losing out on private sector co-finance, the project was able to leverage additional co-finance through collaboration and synergies with other institutions, not originally named as project co-financiers, which led to cost-saving opportunities.

→ *The project was of high strategic relevance, showing strong alignment with international, national and regional frameworks and policies, and making good use of complementarities with existing interventions.*

266. El Salvador is committed to upholding its environmental obligations and protecting its natural resource base, and to this effect, recognizes the relevance of biosafety in its national policies and regulations. This project not only responded to pre-existing frameworks by providing the means to implement them, but also introduced the safe use of biotechnology into new frameworks (plans, policies and political agendas), thus mainstreaming biosafety into other

sectors and reaffirming its relevance for an import-reliant and biotechnologically incipient country such as El Salvador.

267. The project's strategic relevance and efficiency were also raised by seeking complementarities with existing interventions. Indeed, the possibility of complementary alliances with IICA and the academic sector was duly identified during project design. The fact that the project strategically tapped into these resources in its first six months of implementation (inception phase) contributes to its score for "Preparedness and Readiness", while its ability to leverage co-financing from these strategic partners and achieve synergies, factors favourably for both its efficiency and strategic relevance.

→Project design was ambitious and highly reliant on political decisions that were outside the project's control and that occurred late in project implementation, if at all. Additionally, decisions over the NBF that altered the scope of project results were not internalized into the project's design, widening the divide between what was initially proposed and what was ultimately delivered.

268. Project design (in particular, the logframe and project targets) was focused and logical, yet highly ambitious. It seems that the time, effort and skills required to drive the expected change processes forward were underestimated during project design. Many expected results were largely dependent on external government and private sector decisions, and required political savvy in order to navigate governance processes, take advantage of political opportunities and, where possible, elicit the necessary decisions. The project therefore went as far as it could, considering the national context and resources available, yet required almost double the time allocated to deliver the expected results.

269. The level of ambition, however, is somewhat justified considering the highly favourable baseline conditions that existed at the time of project design. El Salvador had pioneered the early adoption (2008) of a Special Regulation in biosafety and its immediate application through the approval of LMO field trials. It had already advanced the preparation of a biotechnology and biosafety policy, making it reasonable to think that this project could accelerate its approval and early implementation. Collaboration existed with the private sector, to the point where three private entities joined the project as co-financiers. Conditions for change were therefore much more positive than those experienced by the project during its implementation.

270.Hence, the partial achievement of results was influenced more by project design and shifting external conditions than by project team efforts. Indeed, a close look at reconstructed project assumptions (*ex post*) reveals that many did not hold. The more significant ones for moving up the causal pathways were generally related to the absence of LMO applications and ensuing biosafety decisions, the choice of a single NCA over three or four, and the notion that governance changes were possible within a 4-year time frame. These limitations could have prompted adjustments to the project's results framework, in order to better reflect the country's political priorities as well as decisions taken through project risk management. But opportunities to streamline or redefine the scope of specific results were missed, showing that project reporting and monitoring mechanisms were not used to their full potential.

→ **The project required almost twice the planned duration in order to achieve the desired results given that external factors, particularly political ideology and misconceptions about biosafety, shaped and curbed its delivery and limited its efficiency.**

271. The project initially faced challenges in aligning government entities in order to agree on a common discourse or position on LMOs, and to extend this to common goals for biosafety. The combined influence of political ideology with slowly-progressing institutional learning curves had implications for the NBF, as it translated into low priority being ascribed to biosafety and consequently, to project implementation. The project's extended duration reduces its efficiency, even if it was a necessity.

272. Strong apprehensions about biotechnology and its applications needed to be addressed among various sectors and disciplines before progress could be made. The time needed for this, however, was underestimated. Thanks to 3 no-cost extensions that almost doubled the project's duration, El Salvador was able to take a phased approach to project execution that was more in line with policy and governance dynamics and that first increased awareness and understanding of biosafety in order to then deliver on tangible NBF results. The project progressed and capacity augmented once social perceptions about biotechnology shifted and there was greater willingness to learn and take action.

"We were trying to build a biosafety system without really understanding modern biotechnology. It was like promoting the use of a safety belt in a car when no one knows how to drive."

273. This case underscores the influence that public perception and political ideology can have on projects that assume political decisions will be taken in an already "enabled" environment. It also highlights the importance of using the inception phase and M&E mechanisms for reviewing the project's scope, level of ambition and project team composition, in order to keep the project in tune with external realities, should such an "enabled" environment cease to exist or require more time to materialize.

→ **The project generated asymmetric stakeholder relations that need attention in order not to undermine the sustainability of the NBF.**

274. To this day, the private sector (represented here by agricultural chambers, associations and foundations) remains supportive of having an operational NBF in place but feels it was excluded from the project and from contributing to key pillars of the NBF, such as the National Policy. Companies also lost enthusiasm for putting forward LMO permit requests after their second set of field trial applications in 2009 (again, presented to MARN through CENTA) went unanswered. Considering the project's highly favourable baseline conditions with regards to private sector support, not capitalizing on a productive relationship with this sector was a missed opportunity that led to dissatisfaction and reduced co-financing from these entities.

275. Momentum has also been lost with the academic sector following a highly active collaborative period under the project, which could leave this sector feeling unappreciated if efforts are not made to re-ignite the participation dynamics that favoured its involvement. A few individual academic actors remaining engaged to this day, but for the academic sector to truly fulfil its

potential role in NBF implementation, including the National Policy, will require more academic institutions to position themselves within the biotechnology agenda (which includes biosafety and bioprospecting). So far, there has been more engagement from private universities than public ones, with engagement needing to become more systematic and institutionally-driven. On the other hand, NGOs (including smallholder producers, farmers and women's groups) have only had marginal participation, mostly as capacity building beneficiaries, and need to be integrated more fully for effective NBF implementation. In going forward, a pluralist approach will be required that can build on the bases left by the project as well as expand participation in order to integrate new groups.

→ *The combination of underutilized project oversight and inconsistencies in project workplans and reporting limited the quality of the project's adaptive management. Lessons can be learnt from both the executing agency (MARN) and implementing agency (UN Environment) perspective.*

276. Adaptive management was a strong and necessary feature in this project. Evidently, less Outputs (targets /deliverables) and less NCAs were needed for NBF implementation than initially planned, and in this regard, adaptive management was effective in "distilling" only the most relevant deliverables for transitioning up the causal pathways. The manner in which this occurred was highly conditioned by the adoption of project Risk Management Plans (led by the Task Manager) and decisions taken in benefit of the project that were not consistently reflected in project planning and reporting and were somewhat isolated from the Inter-Institutional Biosafety Committee as a project oversight mechanism. This, together other factors such as NPC turnover and technological glitches in the Implementing Agency reporting system, affected the quality of project reporting and monitoring yet with little consequence for project delivery.

277. Both MARN as executing agency and UN Environment as implementing agency placed much emphasis on project risk management, and on delivering core results, yet less on using reporting and the Steering Committee as effective project monitoring, evaluation and streamlining tools that would, ultimately, help to better reflect the project's implementation rationale and performance.

278. The Inter-Institutional Biosafety Committee was very successful in acting as a multi-disciplinary platform for technical and legal discussions, the review of Outputs, and for learning in general. Yet its project oversight role (as "Steering Committee") was seemingly weak and poorly understood by its members, including MARN. It seems that factors such as the Committee's size (the full composition considers over 30 members) and technical interests, low frequency of meetings dedicated to project performance, the absence of the Task Manager as a Committee member, and MARN's approach to project management limited the degree to which the Committee was involved in project M&E, and particularly in adaptive management decisions.

279. As the project's Steering Committee, it was expected to recommend ways to improve project delivery and performance (including revisions to the logframe and budget), take part in adaptive management, and get involved in periodic "stock-taking" and other evaluative exercises. This was only minimally the case here, meaning that the Committee's Terms of Reference as a "Steering Committee" were not fully met. In addition, project reporting showed many inconsistencies (stemming from misalignments with the M&E plan and incomplete annual

workplans) which, if addressed through the Committee, could have served to integrate adaptive management decisions collectively and transparently.

5.2 Lessons Learned

Project monitoring & evaluation should be viewed as a systematic means for learning and for guiding and recording adaptive management decisions, rather than merely a reporting requirement. Whether the Steering Committee takes an active or passive role in project monitoring influences the quality of adaptive management decisions (effectiveness, transparency, etc.).

280. Project monitoring includes making sure opportunities to improve project performance are used in a timely and transparent fashion, which can entail improvements to either project design or delivery mechanisms. In this project, opportunities for improving project design existed but were missed, leaving the project's overly ambitious results framework untouched for the full project duration, despite adaptive management leading to adjustments along the way.

281. From both executing and implementing agency perspectives, project reporting cycles could have been better utilized in order to incorporate learning and ensure that adaptive management decisions that fell onto the project's results framework were internalized and backed by the finetuning of the workplan. In a true learning scenario, this would have included the periodic review of project assumptions, drivers, and external conditions too. Project Risk Management Plans were a good basis for subjecting the results framework to a "reality check". Reviewing the need for changes and streamlining of project results means using M&E mechanisms to their full potential, optimizing tasks such as project reporting and external project evaluations. Within MARN, a refined results framework and consistent workplan would have meant less explanations having to be given to the Comptroller during annual accountability reviews.

282. As a primarily oversight structure, the Steering Committee should come into play whenever a project requires adaptive management. This forms part of the Steering Committee's oversight role, which is clearly described in the Terms of Reference contained in the ProDoc. The extent to which this role is facilitated is very much dependent on the Executing Agency's project management style and the UN Environment Task Manager's level of involvement. This project would have done well involving the Steering Committee in more adaptive management decisions and reflexive exercises, and together with the Task Manager, in periodic revisions to the project's results framework. A good practice to formalize the need for changes is to document the decisions taken, through minutes or internal communications that expose the rationale and support for each decision.

When aiming for policy changes and to influence governance processes and decisions, the importance of early engagement with decision-makers and their senior advisors should not be underestimated and should entail a lobbying and sensitization strategy as well as the involvement of appropriate structures.

283. Attention should be paid to ensuring early political buy-in and engagement in all projects that seek to change governance, policy and regulatory processes. In the current project, political

support came late and was more the result of opportunity and changes in project management than of a premeditated strategy. Using lobbying tactics or setting up a “*petit comité*” with political authorities or their advisors, early in the project, could have made a difference to the political ownership and driven-ness experienced by the project. In this sense, projects with Outputs and Outcomes that require political decisions should consider allocating time and resources⁶⁴ to political lobbying and influencing.

284. Appropriate structures need to be considered when reaching out to political authorities. Based on its described role, the project’s Inter-institutional Biosafety Committee was expected to act as a facilitator for informing on project progress and opportunities to “Competent Authorities”, including MAG, MINSAL and in some cases MINED. However, this did not occur as Ministerial representation on the Committee was not well suited to this role: MAG was represented by its field-based CENTA; MINSAL by the National Reference Laboratory; and MINED by an agroindustry researcher. While these technical /scientific institutions and staff can be familiar with the “biosafety language” and contribute to the work of a Steering Committee, their distance from the authorities in central government likely constituted a barrier to effectively relaying discussions and proposals to key decision-makers.

Mainstreaming topics as complex as biosafety into policy frameworks can occur more effectively if coupled with other related topics that have already gained some level of acceptance or with which decision-makers are more familiar.

285. The project was able to access a political platform dedicated to food security issues, namely the National Council for Food and Nutritional Security (known as CONASAN), in order to introduce biosafety, and more specifically LMO-FFPs, onto its agenda. This allowed concerns over food imports, consumer groups and biosafety regulations to be raised with senior-level officials and Ministers. The opportunity to link biosafety with food security proved strategic, as it raised political interest in LMOs and with it, fomented NBF ownership and helped to position MARN as the NCA for biosafety. This approach could be replicated in other countries where food security is high on the political agenda.

286. The project also took advantage of the National Policy approval process to promote an ample interpretation of biotechnology and combine the country’s main interests in biosafety and bioprospecting (access to genetic resources) under a single policy. The political move of joining these two complementary aspects of the Convention on Biological Diversity was successful in that it drew more political attention, had more merits in terms of meeting international obligations (2-in-1), and helped to turn the focus away from LMOs which was the main “stumbling block” when it came to biosafety. This combined approach could also be successful in other countries that are still working on national policies for biosafety and access to genetic resources and benefit-sharing. In El Salvador, it made the National Policy more integral and agreeable to authorities by

⁶⁴ Terminal Evaluation Final Report for Guatemala’s NBF Implementation Project. (Hugo Navajas, 2015)

accommodating both the development and economic potentials of biotechnology, and emphasizing the responsible use (one that is both fair and safe) of all genetic resources.

Biosafety requires the engagement and convergence of many sectors, including two that are key for decision-making yet often overlooked: the judicial sector and parliament. The project did well in involving these sectors as a way to strengthen the bases for NBF implementation.

287. The biosafety capacities created within the judicial sector and institutional legal units, as well as the involvement of a representative from the parliamentary sector, are important sustainability factors and also somewhat of an innovation within the global UN Environment-GEF biosafety portfolio, given that these sectors are rarely “called to the biosafety table”. The specific trainings and discussions prompted by the project (e.g. on the Nagoya-Kuala Lumpur supplementary Protocol on liability and redress for biosafety) raised the level of understanding of biosafety among jurists and legislators, and as such can be viewed as a notable contribution to NBF implementation and its long-term viability. Other countries aiming to make progress in biosafety would do well in integrating these sectors as two key stakeholder groups.

The time required for a biosafety system to become operational, and eventually efficient, can span beyond the duration of two consecutive GEF-funded projects, even with global projects providing extra support.

288. This lesson may not be in line with GEF or country expectations but has been observed on more than one occasion (i.e. in other Terminal Evaluations). The lesson here is that long timelines are needed in order to arrive at institutional achievements that create or consolidate governance processes and structures, policies, legal and accountability frameworks, etc.⁵⁷ And even longer time horizons are required for sustained results in these realms to impact on human behaviour, institutional efficiency, and environmental resources.⁶⁵ This is even more the case with biosafety, which *per se* is a complex multi-layered topic that requires an extended learning curve. It should come as no surprise that a project can spend 4 years simply on “opening the debate” and building a common understanding of what biosafety entails.

Project shortcomings can have “little to do with performance and more with project design and the dynamics of governance processes”

(Hugo Navajas, Terminal Evaluation of the Guatemala National Biosafety Framework (2015))

289. As noted by another evaluator: “Projects that aim to influence national policy or legal frameworks face similar barriers and delays, because the achievement of key outputs often relies on political decisions or other externalities that are outside the project’s direct control.”⁶⁶ This seems to be a common feature in NBF Implementation projects, which tend to be designed considering overly-ambitious intermediate states that are highly dependent on external assumptions and political factors. Even if these projects have favourable baseline conditions for

⁶⁵ These are cited as part of the Terminal Evaluation criterion for “Institutional Sustainability”.

⁶⁶ Terminal Evaluation Final Report for Guatemala’s NBF Implementation Project. (Hugo Navajas, 2015)

continuing to build on prior progress, as was the case in El Salvador, and are able to overcome systemic obstacles that can take a toll on project performance but that are outside the projects' control, as was also the case in El Salvador, they are still unlikely to succeed in the originally allocated timeframe. This means too many external factors come into play for a country to achieve a functioning and efficient biosafety system through a single, or even two, GEF-funded interventions. As concluded by Hugo Navajas for Guatemala: "the expectation that a medium-size project with a three-person team could trigger the formulation, approval, adoption and implementation of a national biosafety system in four years was unrealistic." In the case of El Salvador, it took almost 8 years following on from the first NBF Development project and additional assistance from two global BCH projects.

290. Most Central American projects in the NBF Implementation portfolio share project design features and have similar political systems that could give rise to commonalities in project performance, as was observed between El Salvador, Costa Rica and Guatemala. These projects delivered well "on outputs that supported policy formulation and capacity building, but lost momentum as [they] moved along the pathways.... which were more implementation-driven." It could be interesting for UN Environment to analyse the performance tendency across the Central American portfolio and identify whether this is a common finding, and whether there are similar reasons for the shortcomings they face (e.g. project design, political context, stakeholder participation, etc.).

5.2 Recommendations

5.3.1 Strategic policy direction

291. The National Policy for Biotechnology and Biosafety has been adopted and will soon be published in the official gazette. This important achievement should be disseminated and made visible as an important achievement of the outgoing government, for which the following actions are recommended:

Recommendations	Who	When
Publication of the National Policy for Biotechnology and Biosafety in the official gazette should be confirmed to UN Environment	By MARN	As soon as it has occurred.
Both the officialization of the National Policy, and the policy document itself, should be published on MARN's main webpage and the nBCH	By MARN	2 weeks after notifying UN Environment
Other government entities (e.g. the Vice-Ministry of Science and Technology) should be motivated to also publicize the approved National Policy on their institutional websites.	By MARN	By 31 May 2019

292. Launching the National Policy for Biotechnology and Biosafety as a national policy, with the backing of several institutions and the Presidency, represents a tremendous political

opportunity. MARN should consider capitalizing on this opportunity as much as possible, and as soon as possible – i.e. prior to the change of government in June 2019. There is much to gain from a joint public launching of the policy, with a message that shows how biotechnology (both biosafety and bioprospecting) has gained traction across the government, how these topics represent sustainable development opportunities, and how the government, the scientific community and the private sector can join forces for policy implementation. Considering that high-level visibility of the policy could help to raise the prospects for biosafety with the new government, the following is recommended:

Recommendation	Who	When
A high-level event should be organized to publicly launch the National Policy for Biotechnology and Biosafety, involving as many government authorities as possible as well as media presence.	By MARN with support from MAG, MINSAL and MINED (specifically its Vice-ministry of Science and Technology)	By 31 May 2019

293. The pace at which the next phase occurs for preparation of the National Policy's Action Plan (or Implementation Plan) will be determined by the incoming government. Nevertheless, it would be recommendable to initiate this phase as soon as possible, given that it offers an opportunity to convoke key sectors to become allies in policy implementation, jointly defining actions, responsibilities, timelines and budgets to make the policy a reality. This process can be conducive to a much-needed rapprochement between the academic sector, private foundations, regional organizations and government entities linked to science, technology, food security and environment. It could also offer a means to bring members of the Inter-institutional Biosafety Committee on board with the policy.

294. Given the inter-sectoral nature of the policy, it would be convenient that the responsibility for preparing the Action Plan does not reside exclusively within MARN. However, it is also recognized that inter-Ministerial coordination will be more challenging during the coming government turnover period (2019/ 2020). On the understanding that this planning process, once initiated, will extend over many months and involve many actors, including several sectors that may not be present in the initial planning phase (such as NGOs and farmer groups), the following is recommended:

Recommendation	Who	When
An inter-institutional working group should be convened to coordinate the preparation of an Action Plan that will guide implementation of the National Policy for Biotechnology and Biosafety.	By MARN, involving MAG, MINSAL, MINED (specifically its Vice-ministry of Science and Technology), CONACYT, as well as representatives from the academic sector, private foundations and regional organizations.	By 31 March 2020

5.3.2 NBF Ownership and Implementation

295. MARN should ensure that the transition of the biosafety agenda into the next government goes as smoothly as possible, with emphasis on the substantial progress already made, on MARN's leadership role, and on the relevance of biotechnology, and hence biosafety, for El Salvador. The approved National Policy is an appropriate umbrella under which to continue promoting NBF implementation, especially now that GEF-funded efforts have ceased.

296. A series of specific tasks remain pending that would help to complete El Salvador's biosafety system and bring project results closer to their objectives. It is recommended that MARN use the opportunity to boost project performance and further contribute to NBF sustainability by implementing the following tasks in the short-term:

<p>The Scientific Committee needs to become operational, and consideration given to the possibility of either widening its scope of action or creating an expanded committee that can function as an advisory structure in all matters concerning biosafety, and not just in the context of LMO approvals.</p>		
Recommendations	Who	When
The Scientific Committee's composition and operational norms should be officialised between MARN, MAG and MINSAL to ensure that the Committee is ready to session as soon as needed.	By MARN with collaboration from MAG and MINSAL	By 31 May 2019
A high-level meeting should take place to consider widening the Committee's scope of action or creating an expanded committee that can function as an advisory group in all matters concerning biosafety.	By MARN with collaboration from MAG and MINSAL	By 31 March 2020

<p>All efforts should be made to ensure the adoption (official approval) of all new regulatory instruments generated under the project. Approval of these procedures by MARN, MINSAL and MAG will be proof of uptake and ownership of project Outputs and will mark a milestone in instrumentalizing the NBF.</p>		
Recommendations	Who	When
Ensure the official approval (e.g. by Ministerial Agreement or Resolution) of the procedures for reviewing and taking decisions on LMO-FFPs.	By MARN, MINSAL and MAG	By 31 May 2019
Ensure the official approval (e.g. by Ministerial Agreement or Resolution) of public consultation procedures for biosafety	By MARN	By 31 May 2019
Submit all the supporting Ministerial Agreements or Resolutions (or equivalent) to UN Environment.	By MARN	As soon as available

As both the "single window" and the nBCH need greater visibility, MARN should consider ways to facilitate access to these platforms from its main page.

Recommendation	Who	When
Launch the “applications windows” on MARN’s website and link it with the nBCH.	By MARN	By 30 Sept. 2019
All approved regulatory instruments should be accessible and publicized through the nBCH and its associated “single window”.	By MARN	By 30 Sept. 2019

297. MARN’s role in maintaining the biosafety agenda in the next government will be paramount and should be examined in the context of a transition strategy. How this agenda will transcend into the new government’s plans is currently veiled in uncertainty. MARN will need to act strategically to rally support for both the National Policy and the work that is still needed to consolidate inter-institutional coordination in biosafety and NBF operations. Recognizing how challenging it can be to push an agenda forward over a government transition or inception period, this work may initially move slowly.

298. Under the assumption that a hand-over report or state-of-affairs document will be produced for either the outgoing or incoming Minister, there is an opportunity to highlight key elements of the biosafety agenda where further efforts are needed and that will need to be taken up by the incoming authorities in order for El Salvador to fully meet its obligations under the Cartagena Protocol. Below are some of the main issues that warrant attention (short- and medium-term) and that should be presented in the hand-over report:

- *Continue to promote the work around Art. 26 (LMO-FFPs) of the Special Regulation* with the LMO-FFPs working group, which is gaining traction in biosafety. Having this working group is advantageous for future efforts yet it may soon be subject to political vicissitudes. Nevertheless, the convenient linkage between biosafety and food security should transcend into the new government.
- *Initiate the preparation of the National Policy’s Implementation Plan.* As outlined above, this is a priority aspect for the NBF, and once initiated, will greatly contribute to NBF sustainability. It also constitutes an opportunity to contemplate baseline studies and indicators (including those for gender) that will enable the long-term impacts of the policy to be measured. A contribution here is the public perception study that was carried out under this project, which provides a valuable gender-sensitive baseline to determine whether -and how- this perception evolves over time.
- *Ensure technical staff at MARN, MAG and MINSAL are familiar with new biosafety procedures.* The training already provided on how to process and review LMO permit requests will need to be updated and expanded to cover all the new instruments that are now part of the decision-making /administrative system. This is particularly true in the case of MARN.
- *Set work agendas with Customs and Consumer Defence* to address the entry and transit of LMO-FFPs in Salvadoran territory. These represent next steps in NBF implementation that entail addressing the biosafety management needs of Customs and Consumer Defence, in addition to working with the 3 main Ministries.

- Seek ways to foster the involvement of the Ministry of Education in biosafety, in particular, CONACYT and the Vice-Ministry for Science and Technology. These entities have had a low profile in the project yet are thematically and strategically linked to biosafety and should become protagonists in the implementation of the National Policy. Their challenge will be how best to mainstream modern biotechnology and biosafety into the country's schools and incipient biotechnology sector. Two potential avenues for collaboration are: (i) the Strategy for Promoting Education in Biotechnology and Biosafety that needs to be promoted in order that the incoming education authorities begin to take ownership of these issues; (ii) the promotion of biotechnology (including bioprospecting) in research and development (R&D) agendas.
- Seek ways to foster the participation of NGO stakeholders and integrate gender considerations. A next step is the inclusion of farmers' groups, small producers and women groups, together with environmental NGOs, into the biosafety agenda, as social actors who have a stake in biosafety and who need to join the debate.
- Use any experience in the application of the biosafety system as a learning and finetuning opportunity to improve NBF operations. The message here is that adaptive management will be needed as the learning curve continues even after the NBF begins to function. The need for improvements and adjustments is to be expected based on internal and external user feedback.

Recommendation	Who	When
<i>Prepare a hand-over /state-of-affairs report for the incoming Minister at MARN, in which the issues listed above are clearly presented as the part of next steps in the biosafety agenda.</i>	By MARN	By 15 Dec. 2019

5.3.3 Stakeholder Participation

299. As a recommendation relating to strengthening the human rights dimension of the NBF, attention should be given to the role of indigenous communities and farmer groups, and how biosafety and the introduction of LMOs could affect their rights and livelihoods. Indigenous peoples, local communities and smallholder producers, including the women in these groups, were not consistently represented in this project and have had either basic or no exposure to biosafety issues. There is awareness however among senior advisors that these stakeholders cannot be left out of the biosafety debate and are to be recognized as local agents who will eventually be implementing biosafety and access to genetic resources frameworks. The sooner MARN and the other Ministries are able to bring these groups on board, the better, as they must undergo their own biosafety learning curves before true progress can be made.

300. Knowing that female and male roles tend to be differentiated when dealing with community-based agriculture and transmission of knowledge, understanding these gender-driven roles could also aid to determine how best to bring these local stakeholder groups in sync with biosafety measures and requirements, so they become allies of the biosafety system and active players in bioprospecting, rather than merely passive receivers of agro-technology applications.

Recommendation	Who	When
<i>A road-map should be prepared describing the initial steps that need to be taken in order to involve indigenous peoples, local communities and smallholder producers as beneficiaries of, and players in, both the NBF and bioprospecting activities, including actions that can shed light into gender-driven roles within these groups.</i>	By MARN	By 31 March 2020

301. The ties created with the academic sector and CENTA are an asset for NBF implementation. Attention should be paid to safeguarding these relationships from political indifference, now that efforts under the project have come to a close and that a new government will soon be taking up office. Likewise, the Inter-institutional Biosafety Committee itself is a further resource which MARN could tap into. With a renewed composition, this group could shed its role as a Steering Committee and integrate the NBF as a consultative group that can contribute to information exchange, public consultation processes, regulatory improvements and even implementation of the new National Policy.

Recommendation	Who	When
An internal decision, backed by meeting minutes, should be taken on whether the Inter-institutional Biosafety Committee (based on its current or a new composition) will have a role in implementing the NBF and/or the National Policy for Biotechnology and Biosafety and what this role should be, if any.	By MARN	By 15 Dec. 2019

5.3.4 Optimizing project finalization and hand-over

302. Two small yet important actions should be taken, in order to bring the project to a well-rounded conclusion. Firstly, organizing a closure meeting with all members of the Inter-institutional Biosafety Committee would offer an opportunity to review lessons learnt and receive a final update on the project, including the results of the Terminal Evaluation process. Such a meeting would help to bring the project to a more tangible closure and if desired, could also be used to consider next steps ("where do we go from here?" especially in light of the political changes that await). Secondly, if MARN is able to publish⁶⁷ the project's main Outputs, this would help to publicize the project's key achievements and leave tangible results in the hands of those who contributed to them as well as other audiences.

Recommendation	Who	When
A project closure meeting should be organized with the Inter-institutional Biosafety Committee to present all final project results, reflect on project delivery and acknowledge the Committee's contributions to the project.	By MARN	By 30 Sept. 2019

⁶⁷ This intention was stated in the last budget revision (2017)

The main project outputs should be published in either physical or digital format, including at the very least, the National Policy and the official instruments of the Special Regulation, and ensuring compliance with the UN Environment and GEF branding policies and acknowledging their support to the project.	By MARN	By 30 Sept. 2019
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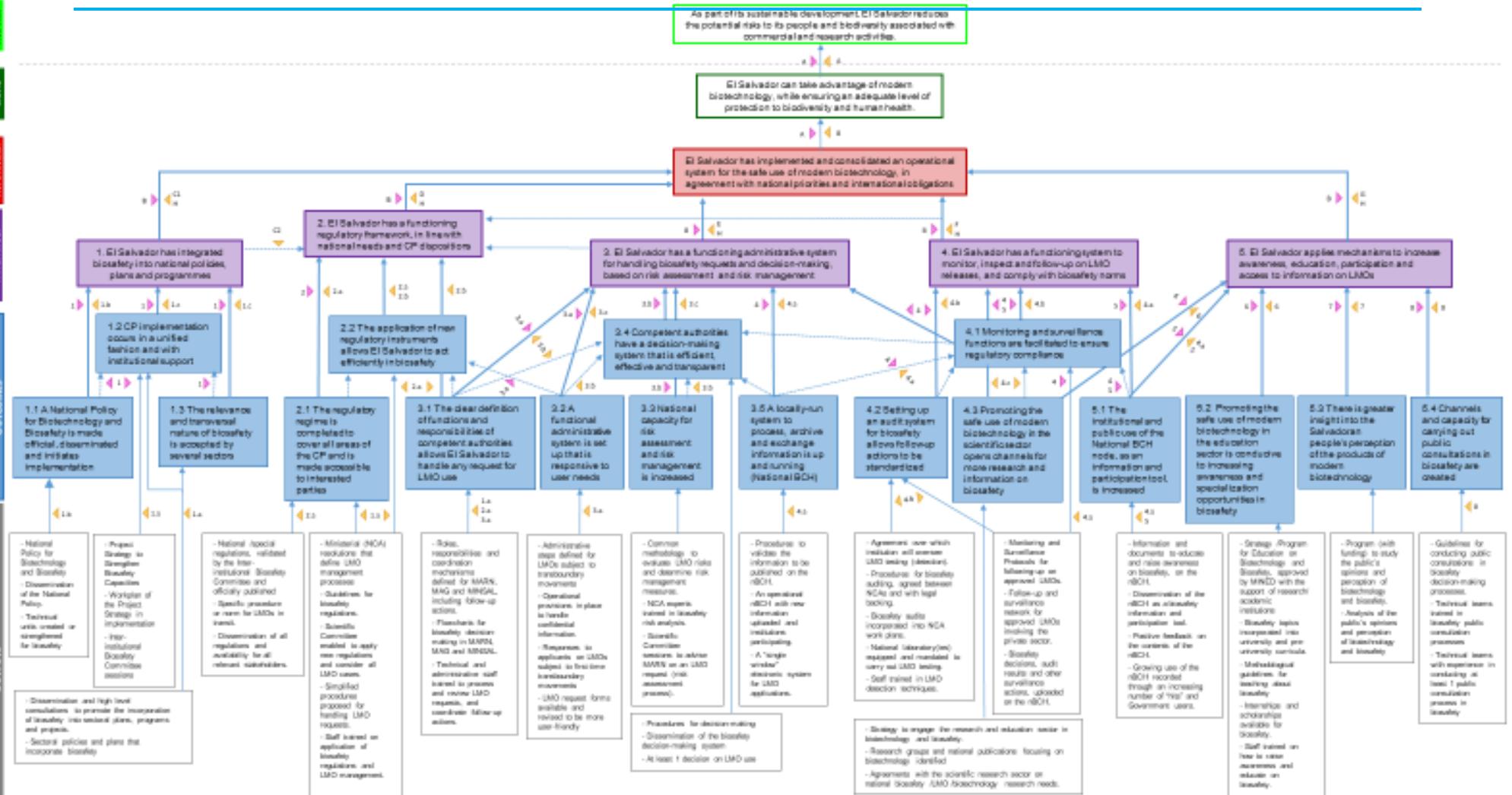
5.3.5 *Implementing Agency project monitoring*

303. Lessons learnt from experiences in project reporting and monitoring point to an opportunity for UN Environment to make better use of standard formats and feedback processes in order to minimize the possibility of inconsistencies inadvertently arising in project reports and management tools. UN Environment Ecosystem Division could seek to enrich its executing agency project management toolkit or induction package, as well as optimize the role of the Task Manager, by carrying out the following recommendations:

Recommendations	Who	When
Seek ways to develop “smarter” reporting formats that aid implementing agency /Task Manager tasks. One way to do this, which can be considered by the Ecosystem Division in regards of its GEF project formats and templates for PIRs, Half-Yearly Progress Reports and workplans, is to seek the means to show approved Outcomes, Output, targets and Activities as fixed non-editable texts, leaving only those columns to be completed /updated by the executing agency and Task Manager as editable fields. Should the user seek to modify texts belonging to the elements of the “results framework”, a message could appear warning that any changes should first be formalized, under a process to be guided by the Task Manager. How to formalize “updates” to the project’s design should be well communicated to executing agencies. Formalized changes would then require the updating of fixed text in the GEF project formats.	UN Environment	By 31 Mar 2020.
The Task Manager’s Terms of Reference (in the ProDoc format) should include participation (physical or virtual) in at least 2 Steering Committees meetings per year that are conducive to putting the project’s rationale (expected results) and expectations /assumptions to scrutiny, with emphasis on learning, optimising results-based management and internalizing adaptive management decisions.	UN Environment	By 31 Mar 2020.

ANNEXES

Annex 1. Theory of Change (TOC) full diagram (unedited)



Annex 2. List of documents consulted

KEY DOCUMENTS

Project in preparation:

- GEF Project Identification Form (PIF)
- Review sheets from UN Environment's Project Review Committee (PRC)
- Project Preparation Grant (PPG) reports
- GEF 4 Programming (SP6 – Biosafety)

Project in implementation:

- Project Document (ProDoc) and all its Appendices, in particular:
 - Appendix 4: Logical (Results) Framework (logframe)
 - Appendix 5: Workplan and timetable
 - Appendix 7: Costed M&E Plan
 - Appendix 14: GEF Tracking Tool (at project design)
- Project Implementation Review (PIRs) for GEF fiscal years (July to June) 2011 to 2017.
- Half-yearly Progress Reports (HYPRs) from 2011 to 2017 (excepting 2015)
- Quarterly /Annual Financial reports
- Audits reports (2013-2017)
- Annual workplans (ANUBIS contains draft and approved formats)
- Mid-Term Review (MTR) carried out by the UN Environment Task Manager
- GEF Tracking Tool completed at MTR
- Task Manager Mission reports
- Risk Management Plans (agreed between MARN and the Task Manager)
- Minutes of Steering Committee meetings
- Terminal reports, in particular: Final Report, Final Workplan and Final Budget rephasing
- 3rd National Report to the CP
- News stories found on the internet, regarding biotechnology in El Salvador
- Technical, legal, administrative, informative and capacity building documents available on ANUBIS as project Outputs

Annex 3. List of names and functions of people contacted / met /interviewed

#		Name	Institution
ACADEMIA			
1	F	Amy Elieth Morán	Universidad de El Salvador (UES) - CENSALUD
2	F	Camila Oquelí	Universidad Dr. José Matías Delgado (UJMD) - Escuela de Medicina
3	F	Carolina Lucero Moran	Universidad Tecnológica de El Salvador (UTEC)
4	F	María Elena Montes Ayala	Universidad Católica de El Salvador (UNICAES) - Lab. cultivo de tejidos
5	F	Vianney Castañeda	Universidad de El Salvador (UES) - CENSALUD
6	F	Yanira López Ventura	Universidad de El Salvador (UES) - Escuela de Biología
7	M	Edgar Lobos	ex Universidad Dr. José Matías Delgado (UJMD)
GOVERNMENT			
8	M	Roberto Danilo Guzman	Jefe Unidad Jurídica DGSVA-MAG
9	M	Carlos Murga Sutter	Ministerio de Agricultura y Ganadería- Unidad de Granos y Semillas
10	M	Lauro Antonio Alarcón	Centro National de Technología Agrícola (CENTA) - del MAG
11	F	Sonia Solórzano	Laboratorio de Biotecnología CENTA.
12	M	Mario Ernesto Parada Jaco	Centro National de Technología Agrícola (CENTA) - del MAG
13	F	Blanca Estela Castillo Aguilar	<u>ex</u> Centro National de Technología Agrícola (CENTA) - del MAG
14	M	Roberto Alegría Coto	Consejo Nacional de Ciencia y Tecnología-CONACYT
15	F	Vilma Ruth Calderon	Investigador en Agroindustria, Viceministerio de C&T, MINED
PROJECT TEAM			
16	M	Jorge Ernesto Quezada Díaz	Asesor Despacho MARN - Punto Focal Protocolo de Cartagena
17	M	Ricardo Valle	<u>ex</u> MARN, equipo del proyecto. Especialista en bioseguridad
18	M	Jeremías Yanes	<u>ex</u> Coordinador del Proyecto (NPC). Especialista en bioseguridad y biotec.
OTHER			
19	M	José Arturo Núñez Cabrera	Corte Suprema de Justicia, Unidad Medio Ambiente
20	F	Maira Cabeza	Corte Suprema de Justicia, Unidad Medio Ambiente
21	F	María José Menéndez	Comisión MA y CC - Parlamento
22	M	Jorge Lopez	OSPESCA (SICA)
23	F	Margarita Gomez	Laboratorio de detección de transgénicos - consultora MARN
24	M	Dagoberto Márquez	Abogado Ambiental y Agroecología, Universidad Luterana

25	M	Rafael Vega	Especialista en bioseguridad (ex FIAGRO)
26	M	Samuel Salazar	ex FIAGRO (ahora FUSADES)
UN ENVIRONMENT			
27	F	Marianela Araya	ex Task Manager, Ecosystems Division, UN Environment
28	F	Gloritzel Frangakis	Programme Assistant, Ecosystems Division, UN Environment
29	F	Lilian Musyoka	Fund Management Unit, Ecosystems Division, UN Environment
30	M	George Saddimbah	Assistant Fund Manager, Ecosystems Division, UN Environment
31	M	Alex Owusu-Biney	Portfolio Manager for Biosafety, Ecosystems Division, UN Environment
32	M	Johan Robinson	Chief GEF Biodiversity + Land Degradation, Ecosystem Division, UN Environment
POLITICAL MEETINGS			
29	F	Lina Pohl	MARN Minister of Environment
30	M	Angel Ibarra	MARN Viceminister of Environment
31	M	Jorge E. Quezada Díaz	MARN Senior Advisor
32	M	Emiliano Arévalo	Head - Consumer Defense
33	M	Abraham Mena	Advisor - Consumer Defense
34	M	Carlos Alberto Angel	MINSAL Food Technician
35	M	Arnoldo R. Cruz	MINSAL Director
NO RESPONSE:		9 representatives from:	
36 -	F	6	Laboratorio Nacional de Referencia Max Bloch (INS) MINSAL, Ministerio de Agricultura y Ganadería- MAG, CAMAGRO, APA and UNES.
44	M	3	

Annex 4. Planned versus actual spend for each UN Environment budget category and items.

UNEP BUDGET LINE/OBJECT OF EXPENDITURE	Estimated Cost at Design	Actual Cost/Expenditure	Expenditure ratio (actual/planned)
	Total (GEF+co-fin.)	Total (GEF+co-fin.)	
	US\$	US\$	US\$
10 PROJECT PERSONNEL COMPONENT			
1101 National Project Coordinator	77 500,00	150 788,91	1,95
1102 Project Staff	6 400,00	83 742,43	13,08
1120 Administrative Staff	66 500,00	576 593,98	8,67
1201 International Consultants	0,00	12 045,00	>
1202 National Consultants	217 448,00	247 307,50	1,14
1601 Staff Travel & Transport	8 000,00	0,00	0,00
1999 Component Total	375 848,00	1 070 477,82	2,85
20 SUB-CONTRACT COMPONENT			
2201 Sub-contract to GOV agencies	227 705,00	0,00	0,00
2301 Sub-contract to private firms	0,00	55 728,45	>
2999 Component Total	227 705,00	55 728,45	0,24
30 TRAINING COMPONENT			
3201 Training	141 980,00	387 001,59	2,73
3301 Meetings	174 651,00	97 541,25	0,56
3999 Component Total	316 631,00	484 542,84	1,53
40 EQUIPMENT & PREMISES COMPONENT			
4101 Office supplies and consumables	1 000,00	27 960,03	27,96
4102 Laboratory supplies and consummables	0,00	32 437,51	>
4201 Non Laboratory Purchase	11 600,00	18 634,60	1,61
4202 Laboratory Equipment	613 468,00	172 649,00	0,28
4301 Office Premises	45 464,00	460 731,66	10,13
4302 Research Facilities	0,00	3 000,00	>
4999 Component Total	671 532,00	715 412,80	1,07
50 MISCELLANEOUS COMPONENT			
5101 Equipment Maintenance	68 868,00	33 683,41	0,49
5201 Publication, Translation, Dissemination and reporting	164 416,00	34 354,29	0,21
5202 Audit Reports	12 000,00	23 249,00	1,94
5301 Communications (tel, fax, e-mail, etc..)	13 500,00	44 670,33	3,31
5302 Others	4 500,00	3 614,00	0,80
5303 Tech.Supp./Evaluation	70 000,00	32 875,00	0,47
5375 UN Agencies Support Charge	0,00	0,00	
5999 Component Total	333 284,00	172 446,03	0,52
TOTAL COSTS	1 925 000,00	2 498 607,94	1,30

Annex 5. Detailed Output achievement by project component

Delivery of “reconstructed” Outputs was rated as follows:

- fully achieved Outputs (GREEN) are those for which evidence existed of the undertaking or the deliverable that fully matched the Output description;
- partially achieved Outputs (YELLOW) were those for which the evidence of the undertaking or deliverable partially matched the description (i.e. specific elements were missing); and
- unachieved Outputs (RED) were those for which no evidence was available of the undertaking or deliverable described. Those signalled in white text are those that became unnecessary once the recipient entities were reduced from several Ministries to just MARN, and were no longer relevant Outputs in the results pathways of the TOC.

OUTPUTS - COMP. 1	Reduced scope due to MARN being only NCA	
Level of achievement	Applies only to MARN but original design includes other Ministries	Unnecessary: Output already in place in MARN
1.1.1 National Policy		
1.1.2 Policy dissemination		
1.1.3 Technical units created or strengthened for biosafety		
1.2.1 Project strategy to strengthen biosafety capacities		
1.2.2 Initial workplan for the project strategy.		
1.2.3 Inter-institutional Biosafety Committee sessions		
1.3.1 Dissemination and high level consultations		
1.3.2 Sectoral policies and plans that incorporate biosafety		
OUTPUTS - COMP. 2	Reduced scope due to MARN being only NCA	
Level of achievement	Applies only to MARN but original design includes other Ministries	Unnecessary : Output already in place in MARN
2.1.1 National /Special regulations (sectoral)		
2.1.2 Specific procedure or norm for LMOs in transit.		
2.1.3 Dissemination and availability of all regulations		
2.2.1 Ministerial resolutions for LMO management processes		
2.2.2 Guidelines for applying biosafety regulations.		
2.2.3 Scientific Committee enabled to consider all LMO cases		
2.2.4 Simplified procedures for handling LMO requests		
2.2.5 Staff trained on biosafety regulations and LMO management		

OUTPUTS - COMP. 3	Reduced scope due to MARN being only NCA		Could not be fully accomplished in the absence of LMO permit requests
Level of achievement	Applies only to MARN but original design includes other Ministries	Unnecessary : Output already in place in MARN	
3.1.1 Roles, responsibilities and coordination mechanisms			
3.1.2 Flowcharts for biosafety decision-making			
3.1.3 Staff trained to process and review LMO requests and follow-up			
3.2.1 Administrative steps defined for LMOs			
3.2.2 Operational provisions to handle confidential information			
3.2.3 Responses to applicants on LMOs			
3.2.4 LMO request forms available and revised to be more user-friendly			
3.3.1 Methodology to evaluate LMO risks and management measures			
3.3.2 Experts trained in biosafety risk analysis			
3.3.3 Scientific Committee sessions to advise MARN on an LMO request			
3.4.1 Procedures for decision-making, in line with the CP			
3.4.2 Dissemination of the biosafety decision-making system			
3.4.3 At least 1 decision taken on LMO use			
3.5.1 Procedures to validate information for publishing on the nBCH			
3.5.2 An operational nBCH with new information regularly uploaded			
3.5.3 A "single window" electronic system to facilitate LMO applications			
OUTPUTS - COMP. 4	Reduced scope due to MARN being only NCA		Could not be fully accomplished in the absence of LMO permit requests
Level of achievement	Applies only to MARN but original design includes other Ministries	Unnecessary : Output already in place in MARN	
4.1.1 Monitoring and Surveillance Protocols			
4.1.2 Network (with private sector) for follow-up and surveillance			
4.1.3 Biosafety decisions, audit results and other, uploaded on nBCH			
4.2.1 Institution to oversee LMO testing (detection)			

4.2.2 Procedures for biosafety auditing, with legal backing			
4.2.3 Biosafety audits incorporated into NCA work plans			
4.2.4 National laboratory(ies) equipped and mandated for LMO testing			
4.2.5 Staff trained in LMO detection techniques			
4.3.1 Strategy to engage the research and education sector			
4.3.2 Research groups and national publications identified			
4.3.3 Agreements on national biotechnology /LMO research needs			
OUTPUTS - COMP. 5	Reduced scope due to MARN being only NCA	Could not be fully accomplished in the absence of LMO permit requests	
Level of achievement	Applies only to MARN but original design includes other Ministries	Unnecessary : Output already in place in MARN	
5.1.1 Information and documents to educate and raise awareness			
5.1.2 Dissemination of the nBCH			
5.1.3 Positive feedback on nBCH information and documents			
5.1.4 Growing use of the nBCH recorded, including government use			
5.2.1 Strategy for Education on Biotechnology and Biosafety			
5.2.2 Biosafety incorporated into university and pre-university curricula			
5.2.3 Methodological guidelines for teaching about biosafety			
5.2.4 Internships and scholarships available for biosafety			
5.2.5 Staff trained to raise awareness and educate on biosafety			
5.3.1 Funded Program for studying public opinion on biotech/biosafety			
5.3.2 Analysis of public opinion on biotech/biosafety			
5.4.1 Guidelines for conducting biosafety public consultations			
5.4.2 Training package for biosafety public consultations			
5.4.3 Technical teams trained in biosafety public consultations			
5.4.4 Technical teams with experience in biosafety public consultation			

Annex 7. Evaluation Brief

Key findings from the Evaluation of the UN Environment/Global Environment Facility project “Contributing to the Safe Use of Biotechnology in El Salvador”

The project “*Contributing to the Safe Use of Biotechnology in El Salvador*” is a GEF-funded project, implemented by UN Environment and executed nationally by the Ministry of Environment and Natural Resources (MARN). This US\$ 2.53 million project (of which US\$ 1.62 million was national co-financing) allowed El Salvador to address crucial components of its National Biosafety Framework. The project’s terminal evaluation (completed in May 2019) revealed a number of lessons learnt and confirmed the project’s most substantive achievements.



Consolidating the national biosafety system turned out to be a slow yet comprehensive process in El Salvador, reaching a new threshold with the approval of several NBF elements.

In the policy arena, biosafety was integrated into other sectors and the country’s first National Policy for Biotechnology and Biosafety was adopted.

In the regulatory arena, existing biosafety regulations were improved and instrumentalized through procedures, guidelines and formats.

In the fields of risk assessment, risk management and law enforcement, greater technical and technological capacities were acquired, including

equipment and training on techniques for detecting Living Modified Organisms (LMOs).

In the educational arena, biotechnology and biosafety were integrated into university curricula. In the field of information management, MARN’s on-line systems for biosafety improved in transparency and coherency and included information relevant for LMO applications.

The project made a notable difference in public awareness, improving institutional preparedness and understanding of biosafety issues. Overall, the project endowed El Salvador with significant capacities and a critical mass of professionals who now better understand the technicalities of modern biotechnology and the advantages of having a biosafety system in place.

This effort gained political support only in its later years, once biotechnology had been to some extent “de-mystified” and authorities became concerned over the unregulated importation of LMOs used for Food, Feed or Processing (LMO-FFPs).

A lesson learnt is that, when aiming for policy changes and to influence governance processes and decisions, the importance of early engagement with decision-makers and their senior advisors should not be underestimated. This engagement should entail a lobbying and sensitization strategy as well as the involvement of appropriate structures.

Once biosafety was seen as an issue of food security and sovereignty that was linked to trade and other multilateral commitments, it took on greater relevance and gained political ground. Authorities then recognized that El Salvador was better off with a functioning biosafety system than without.

At the time of project design, baseline conditions had been exceptionally good, thus explaining the project’s overly ambitious targets (and reconstructed assumptions). The fact that the project did not fully meet its objective, despite all the

advances and momentum gained, says more about project design than about technical implementation and performance. It also shows that *the time required for a biosafety system to become operational, and eventually efficient, can span beyond the duration of two consecutive GEF-funded projects, even with global projects providing extra support.*

Long timelines are needed in order to arrive at institutional achievements that create or consolidate governance processes and structures, policies, legal and accountability frameworks, etc. Even longer time horizons are required for sustained results in these realms to impact on human behavior and wellbeing, institutional efficiency, and environmental resources. Biosafety, a complex multi-stakeholder topic that requires an extended learning curve, is even more the case.

Although the project's cumulative delays led to the need for Risk Management Plan, these monitoring and evaluation mechanisms and others were found to have been under-utilized, as opportunities for reviewing and streamlining the project's design and management decisions were missed.

The lesson learnt is that *project monitoring and evaluation should be viewed as a systematic means for learning and for guiding and justifying adaptive management decisions, rather than merely a reporting requirement*. Whether the Steering Committee takes an active or passive role in project monitoring influences the quality (effectiveness, transparency, fundament, etc.) of adaptive management decisions.

Stakeholder participation was found to have been central to the project's success, with varying levels of engagement and gains achieved. Strong collaborations with the academic and judicial sectors contrasted with weak interactions with the private and non-governmental sectors.

The alliances forged with the academic sector turned out to be strategic and highly productive, while rapprochement with the judicial and parliamentary sectors was somewhat of a novelty when compared with other NBF experiences.

In conclusion, ***biosafety requires the convergence and engagement of many sectors, including the judiciary and legislative powers that are key for decision-making***

and law enforcement - yet are often overlooked. The project did well in involving these sectors as a way to strengthen the bases for NBF implementation. Indeed, the collaboration achieved with these sectors represents an asset for NBF implementation as a sustainability factor.

The El Salvador National Policy for Biotechnology and Biosafety, adopted at the start of 2019, comprises different aspects of biotechnology, including biosafety and bioprospecting (access to genetic resources) as complementary elements of the Convention on Biological Diversity.

Coupling these two elements allowed the country to meet two international obligations and combine both the development and economic potentials of biotechnology while emphasizing the responsible use (one that is both fair and safe) of all genetic resources. This gave the policy a more integral character and made it politically more interesting to decision-makers.

The lesson learnt is that topics as complex as biosafety can be mainstreamed into policy frameworks more effectively if coupled with other related topics that have already gained some level of political acceptance or are more familiar to decision-makers.



Further efforts in biosafety need to focus on avoiding a loss of momentum achieved through the collaborative dynamic with the academic sector (existing relationships are becoming fragmented and could lose force altogether) and from the

political support granted to the National Policy for Biotechnology and Biosafety and to integrating biosafety into the food security agenda.

It is clear that the NBF can only achieve its purpose, and the project its impact, if the NBF is put into operation by means of the private sector presenting LMO applications and the public sector taking biosafety decisions.

Annex 8. Evaluation Terms of Reference (without annexes)

Section 1: PROJECT BACKGROUND AND OVERVIEW

1. Project General Information

Table 1. Project summary

GEF Project ID:	3332	IMIS Number	GFL 2328 2716 4B69
Implementing Agency:	UN Environment	Executing Agency:	Ministry of Environment and Natural Resources (MARN)
Sub-programme:	Environmental Governance	Expected Accomplishment(s):	(MTS 2010-2013) Governance EA(b): States increasingly implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions. (MTS 2014-2017) Environmental Governance EA2: The capacity of countries to develop and enforce laws and strengthen institutions to achieve internationally agreed environmental objectives and goals and comply with related obligations is enhanced.
UN Environment approval date:	30 Nov. 2010	Programme of Work Output(s):	
GEF approval date:	3 June 2010	Project type:	Medium Size Project (MSP)
GEF Strategic Priority:	GEF IV: BD-SP6	Focal Area(s):	Biotechnology, Biosafety & Biodiversity
Expected start date:	August 2010	Actual start date:	December 2010
Planned completion date:	August 2014	Actual completion date:	29 April 2018
Planned project budget at approval:	1,925,000 USD	Actual total expenditures reported as of March 2018:	2,464,602.35 USD
GEF grant allocation:	900,000 USD	GEF grant expenditures reported as of March 2018:	842,053.08 USD
Project Preparation Grant - GEF financing:	9,091 USD	Project Preparation Grant - co-financing:	9,091 USD
Expected Medium-Size Project/Full-Size Project co-financing:	1,025,000 USD	Secured Medium-Size Project/Full-Size Project co-financing:	1,622,549.27
First disbursement:	16 December 2010	Date of financial closure:	N/A
No. of revisions:	10	Date of last revision:	March 2018
No. of Steering Committee meetings:	12	Date of last/next Steering Committee meeting:	Last: 29 August 2017 Next: N/A
Mid-term Review/ Evaluation (planned date):	October 2012	Mid-term Review/ Evaluation (actual date):	December 2012
Terminal Evaluation (planned date):	April 2018	Terminal Evaluation (actual date):	April 2018
Coverage - Country(ies):	El Salvador	Coverage - Region(s):	Latin America
Dates of previous project phases:		Status of future project phases:	

Project rationale

El Salvador, despite its limited territory, is home to a considerable richness of ecosystems. At the level of plants, it is estimated that if there exist around 300-350,000 species of flora in the world, around 10% of them can be found in El Salvador.

With a population of well over 6 million inhabitants, El Salvador is experiencing clear signals that its territory under current management schemes has already exceeded the capacity to sustain its population. Among the main threats are those associated with the introduction into the environment or productive processes in general, of an increased number of Living Modified Organisms (LMOs), without there being adequate processes for their handling, previous evaluation or control.

For countries such as El Salvador, which possess unknown and under-used biological richness, the Convention on Biological Diversity (CBD) framework as well as the Cartagena Protocol dispositions acquire major relevance since they establish parameters which, once explored, investigated and developed by member states, can significantly contribute to a responsible economic and social development. As a signatory party of the Cartagena Protocol (CP) on Biosafety, El Salvador has developed the first phase of the GEF initiative with the objective of developing a regulatory framework for the safe use of biotechnology.

Due to the results obtained from this phase, the country made official the "Special Regulation for the Safe Handling of Genetically Modified Organisms in El Salvador", which derives from the Environment Law under the Ministry of Environment and Natural Resources (MARN). The construction of a biosafety regime has progressed in recent years, with new biosafety regulations adopted and committees created. El Salvador presently has a National Environmental Policy and a National Science and Technology Policy, which are favorable to biotechnology and biosafety implementation in the country.

However, although both policies have some guidelines related to biotechnology and biosafety, it has been much argued that these are not enough to achieve sustainable biosafety implementation in the future. After initiating the efforts to prepare a National Biosafety Framework (NBF) to contribute with the safe use of biotechnology and to fulfill the dispositions of the Cartagena Protocol, and to participate effectively in the Biosafety Clearing House (BCH), El Salvador needed to continue with this line of work.

Based on the above and given that El Salvador still had weaknesses in the implementation of biosafety measures in the environmental, agricultural and public health areas, this project entitled "Contribution to the Safe Use of Biotechnology in El Salvador" was designed, with the general objective of consolidating and implementing an operational system for the safe use.

Consultations on how to regulate the products of modern biotechnology and their possible release into the environment have called for the creation of institutional norms and procedures; this however, must go hand in hand with a National Policy of Biotechnology and Biosafety that can identify national needs on these topics for agricultural production, public health and the protection of the environment; and be responsive to the expansion of activities involving bio-technology as the real and potential commercial uses of LMOs increase. Such a policy would provide a more balanced overview of the costs and benefits of LMOs introduction into the productive landscape.

Starting this project by adopting a national policy on biotechnology and biosafety will allow El Salvador to recognize the contribution of biotechnology and promote its incorporation and the value of native genetic resources and associated knowledge in current and future research projects, as well as in development and technological innovation plans. It would also make easier the identification of novel biotechnological applications and the assessment of their pertinence and opportunity to solve specific problems in the production processes or the processes that produce services in a safe, competitive and sustainable way.

Another key aspect is to achieve harmony between the principles of risk analysis, the information and administrative requirements, and the standards set for risk assessment, because it is necessary to optimize the institutional, financial, technical and human resources to be dedicated to biosafety in El Salvador, without proceedings becoming too onerous for the state or too lax with CP compliance.

Although specific gaps still exist, these will have to be closed in the medium and long term; even though this project represents a strategic opportunity to address some of these gaps in El Salvador, there may still be several pending tasks left for the future.

Project objectives and components

The general objective of this project is to consolidate and implement an operational system for the safe use of biotechnology in El Salvador, in agreement with national priorities and international obligations, and to achieve direct influence over the care of the environment through more efficient operations of modern biotechnology.

Additionally, the project seeks the establishment and consolidation of a functional system that can handle application processes, risks assessments, decision making and facilitate the corresponding administrative actions. This will be complemented with a functional system that can oversee, monitor and follow up the LMO releases and their possible effects on the environment. Finally, the project expects to build a system to promote awareness, education and participation, and facilitate information access for the Salvadoran society.

The specific objectives of the project are to:

1. Contribute to integrate a biosafety policy in the national plans and strategies for sustainable development of El Salvador;
2. Establish and consolidate a functional regulatory framework that will adjust to national needs and priorities, and is in agreement with the dispositions of the CP;
3. Establish and consolidate a functional system to process requests, assess risk and take decisions, and which will facilitate the corresponding administrative tasks;
4. Establish a functional system of surveillance, monitoring, and follow-up of LMO releases and their possible impacts on the environment, that is ready to be applied when approved LMOs need to be monitored; and
5. Conduct targeted efforts for the creation and execution of a System to increase awareness, education, and participation in biosafety, and to facilitate the access of Salvadoran society to information on LMOs.

The project's expected results were organized around four main components

Component 1) Achieving the political integration of biosafety in national policies, plans and programs

The first component seeks to integrate a biosafety policy into national policies, plans and programs. This is very important as it will guarantee that the incumbent Government assigns financial and human resources to the budgets of the Ministries responsible for decision making and with competencies in biosafety issues.

Component 2) Putting into effect a fully functional legal framework in accordance with the CP

The project's second component is the implementation of a functional legal framework in accordance with the Cartagena Protocol. The formulation of laws, regulations and procedures that fulfill the demands of potential local or foreign users, is required to regulate the different uses of LMOs and apply the necessary safeguards.

Component 3) System to process permit requests

The third component relates to the building up of a system that can manage requests and a decision making system, based on risks assessment and management.

Component 4) Follow-up system, especially monitoring of the effects on the environment and performance

The fourth component refers to the creation of a system for the supervision, inspection and surveillance of biosafety, with a focus on generating information and operational knowledge.

Component 5) Information, participation, raising awareness and education of the public

The project's fifth component is intended to mobilise appropriate levels of public participation and raise awareness among the public about the biosafety processes

Table below presents an abridged version of the project's results framework as presented in Appendix 5 of the Project document (ProDoc).

Table 2. Summary of project components and expected outcomes (ProDoc)

Component	Objective	Expected Outcomes	Indicators
Component 1) Implementation of the Biotechnology and Biosafety National Policy	Integrate Biosafety into the national plans and policies of development, in order to comply with the dispositions of the Cartagena Protocol.	1.1 A National Policy for Biotechnology and Biosafety is made official, disseminated and initiates implementation	The National Policy for Biotechnology and Biosafety is validated, adopted and initiated.
		1.2 CP implementation occurs in a guided and coordinated fashion.	A National Strategy to Strengthen Biosafety Capacities (for CP implementation) is approved by consensus between the relevant sectors and initiates its implementation. Existing coordination is strengthened, and serves to facilitate the exchange of biosafety information and positions between competent authorities and guide biosafety capacity building and CP application.
		1.3. The relevance and transversal nature of biosafety is accepted by several sectors	The safe use and management of modern biotechnology is incorporated into the plans, programs and projects of relevant sectors
Component 2) Putting into effect a fully functional legal framework in accordance with the CP	Have a functioning regulatory regime in accordance with the Cartagena Protocol and the national priorities	2.1 The regulatory regime is completed to cover all areas of the CP and is made accessible to interested parties 2.2 The application of new regulations allows El Salvador to act efficiently in biosafety	Specific biosafety regulations are formulated and made known to users and other relevant stakeholders. Resolutions and tools for their application are developed by Govt. sectors currently lacking biosafety regulations. Integration processes (links between institutions) and simplified procedures that favor efficiency are established for the three main competent authorities: MARN, MSPAS and MAG.
Component 3) Setting up a system for handling requests and decision-making system, based on risk assessment and risk management practices	Have a functioning administrative system to process the requests of entry to, use and handling of LMOs in El Salvador.	3.1 The clear definition of the functions and responsibilities of competent authorities allows El Salvador to handle any request for LMO use.	Competent authorities have roles and responsibilities clearly identified, and capacity to handle LMO requests and follow-up on decisions.
		3.2 A functional administrative system is set up that is responsive to user needs	Competent authorities have clear and functional administrative mechanisms that allow LMO applicants to obtain a response in line with Art. 7-11 of the CP. Competent authorities have established mechanisms to handle confidential information. Differential administrative steps are defined for locally developed LMOs, and for LMOs subject to intentional transboundary movements
		3.3 National capacity for risk assessment and risk management is increased	Technical capacity (procedures and expertise) has been established and operates effectively in each of the competent authorities, for the evaluation and handling of LMO risks under different uses.
		3.4 Competent authorities have a decision-making system that is efficient, effective and transparent.	Decisions taken on national LMO use are based on a risk assessment, consider the opinion of external experts, integrate the rulings of relevant competent authorities, and take place according to schedule and in line with the CP.
		3.5 A locally-run system to process, archive and exchange information is up and running (National BCH).	Biosafety information is regularly published on the National BCH LMO applicants can refer to the National BCH to present their requests.

Component	Objective	Expected Outcomes	Indicators
Component 4) Setting up a system for monitoring, inspection and vigilance in biosafety, with emphasis generating information	Have a functioning system to monitor, inspect and comply with the Biosafety norms in El Salvador.	4.1 Monitoring and surveillance functions are facilitated to ensure regulatory compliance	Supervision, inspection and monitoring functions become part of institutional tasks to ensure compliance with biosafety regulations. The National BCH can be used as a tool for follow-up of approved LMOs.
		4.2 Setting up an audit system for biosafety allows follow-up actions to be standardized	Biosafety audits become the principle mechanism by which competent authorities can followup on approved LMOs. There is greater capacity for LMO testing, as part of the biosafety audit system.
		4.3 Promoting the safe use of modern biotechnology in the scientific sector opens channels for more research and information on Biosafety	A Strategy to promote Research and Education in Biotechnology and Biosafety has been devised that raises interest in increasing the status of national scientific knowledge on LMOs
Component 5) Ensuring public awareness and participation processes in biosafety	Have a functional system of awareness, education, participation and public Access to the information	5.1 The institutional and public use of the National BCH node, as an information and participation tool, is increased	The National BCH portal increases both its contents and its users, and receives positive feedback on these improvements.
		5.2 Promoting the safe use of modern biotechnology in the education sector is conducive to increasing awareness and specialization opportunities in biosafety	Formal education in El Salvador as well as informal and non-formal education incorporate the subjects of biotechnology and biosafety Capacity (human resources) and opportunities to raise awareness and educate in biosafety, and to specialize in biosafety and biotechnology, are created anew.
		5.3 There is greater insight into the Salvadoran people's perception of the products of modern biotechnology	A program is developed and put into operation to study the public's perception of biotechnology and biosafety.
		5.4 Channels and capacity for carrying out public consultations in biosafety are created.	Capacities (human resources and mechanisms) exist in competent authorities to carry out public consultation processes, as part of the decision-making process for LMOs, and provide public access to biosafety information.

Executing Arrangements

The Ministry of Environment and Natural Resources (MARN) was the National Executing Agency (NEA) because it is the Focal Point for the CBD and the Cartagena Protocol, and is authorized to coordinate the implementation of the Convention's and Protocol's provisions at national level. MARN worked on behalf of the government of El Salvador to manage the project, ensure that its goals were achieved at the end of the project, and to facilitate all the political, scientific, technical, financial and administrative support needed. MARN sought the advice and guidance of the National Inter-Institutional Biosafety Committee as the Project Steering Committee, which included representatives from various Ministries and non-public institutions.

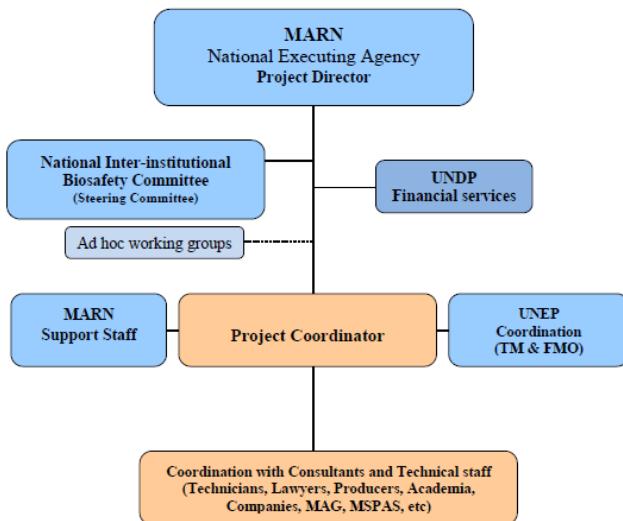
The project was implemented under the supervision of UN Environment as the GEF Implementing Agency, acting as intermediary between the GEF and the MARN, and ensuring fiduciary standards in project execution.

As the project's National Executing Agency (NEA), the MARN -specifically the Wildlife Management Unit of the National Directorate of Natural Heritage- will set up a national coordination team to ensure smooth project operations.

A Project Coordinator was appointed by MARN to be responsible for managing and supervising all aspects related to the project. The project's financial administration was externalized to a third party (UNDP), while the power of decision over the project's budget and expenditures was retained by the MARN.

Figure below shows the organizational arrangements for the project in El Salvador.

Figure 4. Diagram for the execution of the project



Project Cost and Financing

The overall project budget was US\$ 1,925,000 comprising US\$ 900,000 from the GEF and US\$ 1,025,000 in co-financing from the Government of El Salvador, with support from the private sector (commerce and technology). The weight of the GEF budget was placed on technical consultants, training activities and meetings; procurement of laboratory equipment; publications; and project management and M&E costs. The co-financing was needed to cover personnel costs and administrative support; access to laboratory facilities, experimentation areas and data bases; communications and outreach; and office materials and other operational costs. The funding distribution amongst project components is as follows:

Table 3. Estimated project budget by component (USD)

	UNEP - GEF Funds	Co-Finance
Component 1	62,981	115,880
Component 2	90,381	80,880
Component 3	125,881	140,880
Component 4	315,376	355,880
Component 5	164,381	235,880
Other operational costs	141,000	95,600
TOTALS	900,000	1,025,000

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 a follow-up project is likely [or 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 evaluators 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 evaluators, 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 Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The Evaluation Manager will plan with the consultant(s) 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 Policy⁶⁸ and the UN Environment Programme Manual⁶⁹, 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 Ministry of Environment and Natural Resources (MARN), El Salvador’s Agricultural and Agro-industrial Chamber (CAMAGRO), Association of Agro-industrial Suppliers (APA), Foundation for Agricultural Innovation Technology (FIAGRO) and other key project 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 in Section 10 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:

- (a) To what extent has the project enabled El Salvador to establish of a fully functional and responsive National Biosafety Framework that can address possible risks to national and regional biodiversity from unregulated exposure to LMOs?
- (b) To what extent did the project help to enhance national institutional and technical capacity and awareness amongst the key actors for the effective implementation of the National Policy on Biotechnology and Biosafety?
- (c) To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers in line Ministries / Authorities?
- (d) 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?

⁶⁸ <http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

⁶⁹ http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf. This manual is under revision.

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 delivery 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 consultants 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:

i. *Alignment to the UN Environment Medium Term Strategy⁷⁰ (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, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW.

ii. *Alignment to UN Environment / Donor/GEF 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 Building⁷¹ (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.

iii. *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 countries, sub-regions or regions 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.

iv. *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 Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include UN Development Assistance Frameworks or One UN programming.

⁷⁰ 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.

⁷¹ <http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf>

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
- 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 (www.unep.org/evaluation). 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, while the complete Project Design Quality template is annexed in the Inception Report.

Factors affecting this criterion may include (at the design stage):

- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity

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 external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability 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

i. Delivery of Outputs

The evaluation will assess the project's success in producing the programmed outputs (*products, capital goods and services resulting from the intervention*) 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, reformulations may be necessary in the reconstruction of the TOC. In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The delivery of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their delivery. The evaluation 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
- Quality of project management and supervision⁷²

i. Achievement of Direct Outcomes

The achievement of direct outcomes (short and medium-term effects of the intervention's outputs; a change of behaviour resulting from the use/application of outputs, which is not under the direct control of the intervention's

⁷² 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.

direct actors) is assessed as performance against the direct outcomes as defined in the reconstructed⁷³ 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 are 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 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realised.

Factors affecting this criterion may include:

- Quality of project management and supervision
- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Communication and public awareness

ii. 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. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long term impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the EOU website, web.unep.org/evaluation and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. 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.⁷⁴

The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication⁷⁵ 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 Goals⁷⁶ 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 management)
- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity

⁷³ 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.

⁷⁴ Further information on Environmental, Social and Economic Safeguards (ESES) can be found at <http://www.unep.org/about/eses>

⁷⁵ *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.

⁷⁶ A list of relevant SDGs is available on the EO website www.unep.org/evaluation

- Country ownership and driven-ness
- Communication and public awareness

E. Financial Management

Financial management will be assessed under two themes: *completeness* of financial information and *communication* between financial and project management staff. 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 Project/Task Manager and the Fund Management 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
- Quality of project management and supervision

F. Efficiency

In keeping with the OECD/DAC definition of efficiency the evaluation will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution. Focusing 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.

The factors underpinning the need for any project extensions will also be explored and discussed. As management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to implementing parties.

Factors affecting this criterion may include:

- Preparation and readiness (e.g. timeliness)
- Quality of project management and supervision
- 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.

i. Monitoring Design and Budgeting

Each project should be supported by a sound monitoring plan that is designed to track progress against SMART⁷⁷ indicators towards the delivery of the projects outputs and achievement of direct outcomes, including at a level

⁷⁷ SMART refers to indicators that are specific, measurable, assignable, realistic and time-specific.

disaggregated by gender, vulnerability or marginalisation. 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.

ii. Monitoring of Project 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. This should include monitoring the representation and participation of disaggregated groups in project activities. 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.

iii. 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 (e.g. the Project Implementation Reviews and Tracking Tool for GEF-funded projects). 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
- Responsiveness to human rights and gender equity (e.g. disaggregated indicators and data)

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 (i.e. 'assumptions' and 'drivers'). 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.

i. 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.

ii. 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. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

The evaluation will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) 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. In particular, the evaluation will consider whether institutional capacity development efforts are likely to be sustained.

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
- Country ownership and driven-ness

I. Factors and Processes Affecting Project Performance

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

i. Preparation and Readiness

This criterion focuses on the inception or mobilisation stage of the project (ie. the time between project approval and first disbursement). 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 included in the template for the assessment of Project Design Quality).*

ii. 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 Steering Groups etc.); communication and collaboration with UN Environment colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. 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.

iv. 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.

In particular the evaluation will consider to what extent project design, implementation and monitoring 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; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

v. *Country Ownership and Driven-ness*

The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, ie. either a) moving forwards from outputs to direct outcomes or b) moving forward from direct outcomes towards intermediate states. 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 of interest of all gendered and marginalised groups.

vi. *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 gendered or 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 either 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(s) 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. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

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

- (a) A desk review of:

Relevant background documentation;

Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;

Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;

Technical reports on project activities and outputs;

Terminal Reports of the project including final project output, audit report, and final financial statements;

Other reports deemed useful to the terminal evaluation of the project.

- (b) Interviews (individual or in group) with:

UN Environment Task Manager (TM);

Project management team;

UN Environment Fund Management Officer (FMO);

Sub-Programme Coordinator;

Project partners, including the Ministry of Environment and Natural Resources (MARN), El Salvador's Agricultural and Agro-industrial Chamber (CAMAGRO), Association of Agro-industrial Suppliers (APA), Foundation for Agricultural Innovation Technology (FIAGRO) and other key project partners

Relevant resource persons.

- (c) Field visits to meet with the project team and partners in El Salvador
- (d) Other data collection tools as may be deemed useful by the Evaluator

Evaluation Deliverables and Review Procedures

The Evaluator will prepare:

- 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.
- Preliminary Findings Note: typically in the form of a powerpoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings.
- 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 findings for wider dissemination through the EOU website.

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 Evaluator

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 (Allyson Tinney), Fund Management Officer (George Sadimbah) 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 April 2018 to August 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 and Spanish languages, 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;

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 4 below presents the tentative schedule for the evaluation.

Table 4. Tentative schedule for the evaluation

Milestone	Tentative schedule
Kick-off meeting (via Skype)	August 2018
Inception Report	August 2018
Data collection and analysis, desk-based interviews and surveys	August-September 2018
Field Mission (based on meeting arrangements and available budget)	September 2018
Draft report to Evaluation Manager (and Peer Reviewer)	October 2018
Draft Report shared with UN Environment Task Manager and Project Team	October 2018
Draft Report shared with wider group of stakeholders	November 2018
Final Report	December 2018

Contractual Arrangements

Evaluation Consultants will be 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(s) certify 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 Manager 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 (as per annex document 7)	30%
Approved Draft Main Evaluation Report (as per guidelines in annex 1)	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 1: Tools, Templates and Guidance Notes for use in the Evaluation

The tools, templates and guidance notes listed in the table below, and available on the Evaluation Office website (www.unep.org/evaluation), are intended to help Evaluation Managers and Evaluation Consultants to produce evaluation products that are consistent with each other and which can be compiled into a biennial Evaluation Synthesis Report. The biennial summary is used to provide an overview of progress to UN Environment and the UN Environmental Assembly. This suite of documents is also intended to make the evaluation process as transparent as possible so that all those involved in the process can participate on an informed basis. It is recognised that the evaluation needs of projects and portfolio vary and adjustments may be necessary so that the purpose of the evaluation process (broadly, accountability and lesson learning), can be met. Such adjustments should be decided between the Evaluation Manager and the Evaluation Consultant in order to produce evaluation reports that are both useful to project implementers and that produce credible findings.

ADVICE TO CONSULTANTS: As our tools, templates and guidance notes are updated on a continuous basis, kindly download documents from these links during the Inception Phase and use those versions throughout the evaluation.

Document	Name	URL link
1	Evaluation Process Guidelines for Consultants	Link
2	Evaluation Consultants Team Roles (<i>Team Leader and Supporting Consultant</i>)	Link
3	List of documents required in the evaluation process	Link
4	Evaluation Criteria (<i>summary of descriptions, as in these terms of reference</i>)	Link
5	Evaluation Ratings Table (only)	Link
6	Matrix Describing Ratings by Criteria	Link
7	Weighting of Ratings (excel)	Link
8	Project Identification Tables (GEF and non-GEF)	Link
9	Structure and Contents of the Inception Report	Link
10-a	Template for the Assessment of the Quality of Project Design (Word template)	Link
10-b	Template for the Assessment of the Quality of Project Design (Excel tool)	Link
11	Guidance on Stakeholder Analysis	Link
12	Gender Note for Evaluation Consultants	Link
13	Use of Theory of Change in Project Evaluations	Link
14	Assessment of the Likelihood of Impact Decision Tree (Excel)	Link
15	Possible Evaluation Questions	Link
16	Structure and Contents of the Main Evaluation Report	Link
17	Cover Page, Prelims and Style Sheet for Main Evaluation Report	Link
18	Financial Tables	Link
19	Template for the Assessment of the Quality of the Evaluation Report	Link

Annex 9. Brief CV of the evaluation consultant

Name: TÉA GARCIA-HUIDOBRO CABRERA

Nationalities: Chilean / British

Residency: Costa Rica

Education: Bachelor of Science (B.Sc.) in Biochemistry – University of Bristol, UK

Master of Science (M. Sc.) in Environmental Technology – Imperial College, University of London, UK

Work experience relevant to this assignment:

Independent environmental consultant Mar. 2017 – to date: Assignments to assist in donor /GEF project design and approval process; to prepare case studies from across the Central American region; and to support project completion and terminal reporting processes; among others.

Regional Programme Coordinator at IUCN (International Union for the Conservation of Nature) Aug. 2011 – Oct. 2016: entailed portfolio coordination, and oversight of donor reporting and external evaluations for national and regional projects from around the Meso American and Caribbean regions that included collaboration with the government of El Salvador.

UN Environment-GEF Task Manager Jan. 2007 – Aug. 2011: in charge of design, approval, oversight and technical assistance for GEF-funded projects in Latin America and the Caribbean in the biosafety and wider biodiversity portfolios, including other National Biosafety Framework implementation projects and external /internal evaluation processes.

Head of Species and Genetic Resources Unit, CONAMA (National Commission for the Environment) Government of Chile, Jan. 2006 – Dec. 2006; Involved in regulatory and policy tasks for access to genetic resources and benefit-sharing, species conservation, biosafety and other lies of work under the Convention on Biological Diversity.

Languages: Spanish (mother-tongue); English (native speaker); French (speak + read with ease)

Aptitudes:

Executive and coordination skills: Planning and organizing; Analyses and syntheses; Monitoring and evaluation; Editing; Diagrams and visual concepts; Working under pressure and managing multiple priorities; Perseverance and dedication; Teamwork; Conducting meetings and interviews; Moderating and effective communication; Flexibility and adapting to changing work environments.

Annex 10. Quality Assessment of the Evaluation Report (to be added by the Evaluation Manager)

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
Substantive Report Quality Criteria		
<i>Quality of the Executive Summary:</i> 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.	the summary provides a suitable overview of the project and its performance highlights under some of the main evaluation criteria. The lessons learned and the recommendations are also included.	5
<i>I. Introduction</i> 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?	Precise, well written and captures all the main introductory points recommended in the TOR	6

<p>II. Evaluation Methods</p> <p>This section should include a description of how the <i>TOC at Evaluation</i>⁷⁸ was designed (who was involved etc.) and applied to the context of the project?</p> <p>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.).</p> <p>The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described.</p> <p>It should also address evaluation limitations such as: low or imbalanced 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>This section is complete, concise, and the approach and methods used for data collection and analysis have been described in great detail.</p>	6
<p>III. The Project</p> <p>This section should include:</p> <ul style="list-style-type: none"> • <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). • <i>Objectives and components</i>: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) • <i>Stakeholders</i>: Description of groups of targeted stakeholders organised according to relevant common characteristics • <i>Project implementation structure and partners</i>: A description of the implementation structure with diagram and a list of key project partners 	<p>This section is also complete and sufficiently covers all the required sub-topics in a detailed yet clear and concise manner.</p>	6

⁷⁸ 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*.

<ul style="list-style-type: none"> <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 <i>Project financing:</i> Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing 		
<p>IV. Theory of Change</p> <p>A summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc logframe/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 a result of a consultative process. The narrative is clear and provides a suitable explanation of causal pathways. The diagrammatic representation could be simplified / condensed further. Drivers and Assumptions, as well as the change agents along these pathways are sufficiently described in the narrative.</p>	5
<p>V. Key Findings</p> <p>A. Strategic relevance: 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> <ul style="list-style-type: none"> v. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW) vi. Alignment to UN Environment/GEF/Donor Strategic Priorities vii. Relevance to Regional, Sub-regional and National Environmental Priorities viii. Complementarity with Existing Interventions 	<p>Section is well done and covers the four main aspects of relevance prescribed in the TOR.</p>	6
<p>B. Quality of Project Design To what extent are the strength and weaknesses of the project design effectively <u>summarized</u>?</p>	<p>A summary of the project's strengths and weaknesses at design stage are summarized, though not in sufficient enough detail to adequately explain the sub-optimal rating given for this criterion.</p>	5

<p>C. Nature of the External Context</p> <p>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>	<p>The TE sufficiently describes the external operating context. The implications on project performance has also been discussed</p>	6
<p>D. Effectiveness</p> <p>(i) Outputs and Direct Outcomes: 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>	<p>The delivery of outputs has been assessed in terms of both quantity and quality. Minor inconsistencies were pointed out and corrected. Assessment of Direct Outcomes is well covered. Reasons behind the success or shortcomings have been covered to varying degrees of detail.</p>	5
<p>(ii) Likelihood of Impact: 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?</p> <p>How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed?</p>	<p>The discussion follows logically from the assessment of Outputs and Direct Outcomes. It is consistent with the TOC narrative and discusses the stakeholders and status of assumptions contributing to causal pathways from medium-term Outcomes to Impact.</p>	5
<p>E. Financial Management</p> <p>This section should contain an integrated analysis of all dimensions evaluated under financial management. And include a completed 'financial management' table.</p> <p>Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> • <i>completeness</i> of financial information, including the actual project costs (total and per activity) and actual co-financing used • <i>communication</i> between financial and project management staff and • <i>compliance</i> with relevant UN financial management standards and procedures. 	<p>The section covers aspects of completeness, compliance and communication, as per guidance. The quality of the assessment has been affected somewhat by data insufficiency (co-financing data was reported lost, original files not accessible).</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>	4.5

<p>F. Efficiency</p> <p>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"> • Implications of delays and no cost extensions • Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe • Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. • The extent to which the management of the project minimised UN Environment's environmental footprint. 	<p>Section has been covered as per guidelines. Findings have been presented adequately and some examples and cross referencing provided to support the assessment. Suggestions for improving the analysis were provided</p>	5
<p>G. Monitoring and Reporting</p> <p>How well does the report assess:</p> <ul style="list-style-type: none"> • Monitoring design and budgeting (<i>including SMART indicators, resources for MTE/R etc.</i>) • Monitoring implementation (<i>including use of monitoring data for adaptive management</i>) • Project reporting (e.g. PIMS and donor report) 	<p>A more analytical assessment of project monitoring and its implications on performance was recommended and is reflected in the final draft. Human Rights and Gender mainstreaming was also covered here.</p>	5
<p>H. Sustainability</p> <p>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:</p> <ul style="list-style-type: none"> • Socio-political Sustainability • Financial Sustainability • Institutional Sustainability (<i>including issues of partnerships</i>) 	<p>Clear and concisely presented. Provides a good assessment on the status of each of the dimensions of sustainability.</p>	5
<p>I. Factors Affecting Performance</p> <p>These factors are <u>not</u> discussed in stand-alone sections but are integrated in criteria A-H as appropriate. To what extent, and how well, does the evaluation report cover the following cross-cutting themes:</p> <ul style="list-style-type: none"> • Preparation and readiness • Quality of project management and supervision⁷⁹ • Stakeholder participation and co-operation 	<p>The required sub-criteria are all covered to varying levels of detail throughout the report. Greater attention needed for the following aspects: 'Responsiveness to human rights and gender equity' and</p>	5

⁷⁹ 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.

<ul style="list-style-type: none"> • Responsiveness to human rights and gender equity • Country ownership and driven-ness • Communication and public awareness 	<p>to 'Communication and public awareness'</p> <p>Final report:</p>	
<p>VI. Conclusions and Recommendations</p> <p>i. Quality of the conclusions: The key strategic questions should be clearly and succinctly addressed within the conclusions section?</p> <p>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.</p>	<p>The conclusions section is well developed and presents the most critical findings of the evaluation – both strengths and weaknesses are adequately discussed.</p> <p>Responses to the key strategic questions are included and are anchored on findings in the report.</p>	5.5
<p>ii) Quality and utility of the lessons: 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.</p>	<p>The lessons are relevant and based on findings presented in the report. They have a potential for wider application and use.</p>	6
<p>iii) Quality and utility of the recommendations:</p> <p>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>The formulation of recommendations was improved in the final draft to make a clearer distinction between the recommendation statement and its contextual back ground, as well as clearly identifying the 'who', 'what', 'when and 'why'. The recommendations are relevant though the acting agent(s) are external agencies based in the country.</p>	5
<p>VII. Report Structure and Presentation Quality</p> <p>i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?</p>	<p>The report follows the prescribed structure, and meets all the requirements in the TOR</p>	6
<p>ii) Quality of writing and formatting:</p> <p>Consider whether the report is well written (clear English</p>	<p>The report is well written in clear English language that is</p>	6

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?	easy to comprehend. Formatting is well done.	
OVERALL REPORT QUALITY RATING		HS

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.