
Terminal Evaluation of the Global Environmental Facility / UN Environment Project “Implementation of the National Biosafety Framework for Ghana”



May 2018



Evaluation Office of UN Environment

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Preparation of GMO Rice Confined Field Trial in Ghana (NBA website)

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Implementation of National Biosafety Framework for Ghana”

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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 between 2012 and 2017. The project's overall development goal [“to strengthen and evolve the institutional and human capacity needed to meet the critical challenges in the operationalisation of the NBF and the obligations under the Cartagena Protocol on Biosafety”]. 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 their executing partner Ministry of Environment, Science and Technology (MEST), and the relevant agencies of the project participating countries.

Key words: [Biosafety, Genetically Modified Organisms (GMOs), National Biosafety Authority (NBA), Biotechnology & Nuclear Agriculture Research Institute (BNARI), Cartagena Protocol on Biosafety (CPB), Competent National Authority (CNA), National Biosafety Committee, Regulatory regime, Administrative System, Risk Assessment and Management, Awareness and Participation, Socio-political and Institutional Sustainability, 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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**“Implementation of the National Biosafety Framework for Ghana”
Project Identification Table**

Sub-programme:	Environmental Governance	Expected Accomplishment(s)/ Programme of Work Output(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.
UN Environment approval date:	02/05/2012		(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.
GEF project ID:	3045	Project type:	Medium Size Project
GEF OP #:		Focal Area(s):	Biodiversity
GEF approval date:	27/02/2012	GEF Strategic Priority/Objective:	Strategic Programme 6: Biosafety (SO3/SP6)
Expected start date:	01/05/2011	Actual start date:	24/05/2012
Planned completion date:	01/05/2015	Actual completion date:	01/07/2017
Planned project budget at approval:	USD 1,436,364	Actual total expenditures reported as of October 2017:	USD 786,153
GEF Allocation:	USD 636,364	GEF grant expenditures reported as of October 2017:	USD 355,943 (56%)
Expected Medium-Size Project co-financing:	USD 800,000	Secured Medium-Size Project co-financing (October 2017):	USD 430,210
First disbursement:	24/05/ 2012	Date of financial closure:	Not closed
No. of revisions:	7	Date of last revision:	01/01/2017
No. of Steering Committee meetings:	6	Date of last/next Steering Committee meeting:	15/06/2016
Mid-term Review/ Evaluation (planned date):	November 2013	Mid-term Review/ Evaluation (actual date):	August 2014
Terminal Evaluation (planned date):	May 2017	Terminal Evaluation (actual date):	May – November 2017 (Country visit 21-28/10/2017)
Coverage (Countries):	Ghana	Coverage - Region(s):	Western Africa

List of Acronyms and Abbreviations

ANUBIS	A New UNEP Biosafety Information System
BCH	Biosafety Clearing House
CBD	Convention on Biological Diversity
CPB	Cartagena Protocol on Biosafety
GEF	Global Environment Facility
GMO	Genetically Modified Organism
IS	Intermediate State (of the TOC)
LMO	Living Modified Organism
Logframe	Logical Framework
M&E	Monitoring and Evaluation
NBA	National Biosafety Authority
NBF	National Biosafety Framework
NEA	National Executing Agency
NGO	Non-Governmental Organisation
ProDoc	Project Document
TOC	Theory of Change
TOR	Terms of Reference

Executive Summary

1 This is the final report of the Terminal Evaluation of the Project “Implementation of the National Biosafety Framework for Ghana” (GFL/5060-2716-4C41), a Medium Size Project financed through GEF-4 mechanism and belonging to GEF Biodiversity Focal Area, with the objective “To strengthen and evolve the institutional and human capacity needed to meet the critical challenges in the operationalisation of the National Biosafety Framework (NBF) and the obligations under the Cartagena Protocol on Biosafety”.

2 The project was approved in 2012 for a duration of 3 years (2012-15). The total budget of the project is US\$ 1.436.364, 44% of which represents the GEF allocation (US\$ 636.364), and the remaining 56% (US\$ 800.000) to be provided by the Government of Ghana. The Project has been granted 2 no-cost extensions for a total of 26 months, shifting its Official End date to 01/07/2017.

3 The Evaluation took place in the period between May to November 2017 and included a mission to Ghana from 21/10/2017 to 28/10/2017. Under the same Evaluation, a cluster of three similar Projects was assessed (Ghana, Liberia and Nigeria) and a Comparative Analysis was also produced (see Annex 6), as well as a joint Evaluation Bulletin (Annex 5).

4 The National Executing Agency of the Project was the Biotechnology and Nuclear Agriculture Research Institute (BNARI) of the Ghana Atomic Energy Commission, which was, at the time of Project preparation and formulation, the focal point agency for Biosafety in the country and had previously been the executing agency of the GEF / UN Environment Project of Development of the National Biosafety Framework (2002-2004).

5 With the passage of the Biosafety Act (2011), the new National Biosafety Authority (NBA) was created, which is the current Competent National Authority for the implementation of the Cartagena Protocol. However, considering the incipient stage of the newly created NBA at the time of Project’s early implementation, it was then agreed that BNARI would still host the Project Secretariat, hence acting as the National Executing Agency (NEA) till the end of the Project, which was, in fact, what actually happened .

6 Ghana has been involved in Biotechnology’s research and development in different sectors (industrial, health, agricultural) since the ‘90s through a well-established network of national research centres and institutes and the support of international institutions. While modern biotechnology is regarded as a promising factor for country’s development, there is also a genuine concern on its potential risks. In 2003, Ghana ratified the Cartagena Protocol on Biosafety and moved steadily toward the establishment of a National Biosafety Framework (NBF) that has evolved through the contribution of several government ministries, agencies, universities and research institutions, as well as through the international support of various international players (see chapter 5.4.1).

7 In 2007, in absence of a national Biosafety Law, a Regulation on laboratory and confined field trials was approved and, on that basis, five field trials have been so far authorised, of which four are still on-going. Eventually, in 2011, the country approved the National Biosafety Law (drafted since 2004) that also created the National Biosafety Authority (NBA). The current Project was, in fact, conceived to strengthen the institutional and human capacity to fully implement the National Biosafety Framework in the context of the new Biosafety Law of 2011.

8 The implementation of the Project (2012-2017) has, therefore, coincided with the establishment of the new regulatory regime foreseen in the Biosafety Act of 2011, including the new National Biosafety Authority. However, the setting of the newly created National Biosafety Authority (NBA) has been largely delayed and only took place in 2015 (see chapter 5.4.1) for different reasons related to political and institutional changes, but also to the complex

intersectoral nature of Biosafety, to the controversial nature of the debate around GMOs, as well as to bureaucratic inertia and logistic problems.

9 Nevertheless, most of the Project Outputs have been delivered at a satisfactory level or are in their final stage of achievement (e.g. the new Regulations, the common Memorandum of Understanding between the National Biosafety Authority and the Regulatory Agencies). Outputs have also been delivered regarding Public Awareness and Information, though this component should be prioritised and enhanced through some planning and methodological tools, the implementation of which has just started.

10 The delayed setting of the National Biosafety Authority has, in fact, limited the opportunity of the country to take full advantage of the technical, methodological and financial assistance of the Project, as also corroborated by the low rate of expenditure at the end of the Project (56% of the GEF allocated budget, see Table 3, Chapter 3.6). Therefore, although the overall Effectiveness of the Project can be considered Satisfactory (see Summary Table of rating below and the complete Table in chapter 6.1.1), it can be argued that Ghana may have somewhat missed the opportunity to be more advanced in terms of framework implementation and consolidation, than it actually is.

11 Improvements and consolidation are needed in some key-aspects. The implementation of a functional system for public awareness and participation remains an area of concern, in need of more decisive and significant steps for enhancing the socio-political sustainability of the Biosafety agenda (see chapter 5.8.1). Entry-points and mechanisms of public participation enabling a two-way communication with relevant organizations of the Private Sector, the Civil Society and the Public in general have to be found and implemented. The National Biosafety Authority itself is still in an incipient phase of structuration and consolidation, both quantitatively and qualitatively, and in strong need of improvement of its organizational and managerial performance. This is a key-issue for the sustainability of the National Biosafety Framework in the immediate future (see chapter 5.8.3).

12 Some relevant steps have been undertaken to sustain the National Biosafety Framework after the end of the Project. Biosafety is well represented in the National Biodiversity Strategy and Action Plan and the new National Biosafety Authority has also prepared its Medium-Term Development Plan 2018-21, to integrate Biosafety in the main national planning instruments. Financial sustainability of the Framework, however, will depend on the effective allocation of adequate funding to the Authority (chapter 5.8.2).

13 The Project has formally come to end in July 2017 (after a six-month extension for administrative closure), but the unspent balance of the advancements received has been already committed and certain activities are in pipeline or have recently started. Their completion could be relevant to consolidate project's achievements and the Evaluation has included a Recommendation in that perspective (see Recommendation 1).

14 The Evaluation has also concluded that the overall Monitoring and Reporting System of UN Environment / GEF Projects shows, as largely discussed in chapter 5.7, positive elements mixed with relevant weaknesses all along the whole chain of the GEF / UN Environment Monitoring and Reporting System. A Recommendation has also been formulated on this respect (Recommendation 5).

Summary Table of the Evaluation Criteria and Ratings

Criterion	Summary Assessment	Rating
A. Strategic Relevance	Very satisfactory in all aspects.	HS
B. Quality of Project Design	Project Design Quality assessed in Inception Report and found weakly developed in some relevant aspects, like Project Preparation, Intended Results and Causality, Logical Framework and Monitoring.	MU

Criterion	Summary Assessment	Rating
C. Nature of External Context	Overall Favourable, not being affected by unusually challenging operational environment, like natural disaster or conflicts.	Favourable
D. Effectiveness		S
<i>1. Achievement of outputs</i>	Main Expected Outputs delivered, despite limiting external conditions that hampered Project's performance.	S
<i>2. Achievement of direct outcomes</i>	Most Immediate Outcomes satisfactorily achieved, some of them in need of consolidation.	S
<i>3. Likelihood of impact</i>	The process of Outcomes consolidation is on-going with clear allocation of responsibilities and steps given towards impact	L
E. Financial Management		HS
F. Efficiency	In a transitional phase, the National Executing Agency and national stakeholders have played a key-role in positively ensuring Project efficiency at the best of their capacity. Feasibility and timeliness of the activities have been strongly challenged by factors beyond the control of the Project.	S
G. Monitoring and Reporting	Uneven quality in its components.	MS
H. Sustainability		L
<i>1. Socio-political sustainability</i>	Efforts on-going to gain wider public acceptance and stakeholders' inclusion, as also foreseen by the national Biosafety Act.	L
<i>2. Financial sustainability</i>	Substantive steps have been given to mainstream Biosafety within the national strategic planning and funding	L
<i>3. Institutional sustainability</i>	Roles and responsibilities very clearly assigned to the National Biosafety Authority and the partnership with Regulatory Agencies are being structured through MoUs.	L
Overall project rating		S

15 The Evaluation has formulated five Recommendations (see chapter 6.3), summarised here below:

<p>Recommendation 1: The Evaluation recommends a six-month extension in order to implement or complete on-going / in pipeline activities for which available funds (unspent balance in the Project's account) have already been committed, namely:</p> <ul style="list-style-type: none"> - 14 national consultancies in different and relevant areas - Final Auditing - Awareness and training activities - Procurement of NBA Office Equipment - Participation of the Project team to the annual Meeting of NPC organised by UN Environment
<p>Recommendation 2: The Evaluation strongly recommends speeding up the structuration and consolidation of the National Biosafety Authority in place since 2015 and more specifically, within 6 months:</p> <ul style="list-style-type: none"> - The urgent recruitment of at least the Technical Director and of the Director of the Finance and Administration Office - The establishment of clear Terms of Reference and Workplan for the technical and administrative staff already in place (seconded staff) - The completion of the IT equipment of the Office (computers, telephone, internet connection, etc.)

Recommendation 3:

The Evaluation recommends giving priority and follow-up to the implementation of some key-components of the NBF, namely, within the next six months:

- The approval of the new Regulations of the Biosafety Act;
- The finalisation of the Guidelines for the Environmental Release and Commercial Use of the GMOs;
- The full enactment of the common Memorandum of Understanding with all seven Regulatory Agencies;
- The participatory elaboration of a Public Awareness and Participation Plan with clearly identified Entry Points for public participation in decision-making.

Recommendation 4:

The Evaluation recommends giving effective steps for the implementation of the GMOs laboratory, by concluding in the next six months at least:

- The urgent integration of the full list of the equipment in custody at the Ghana Standards Authority (GSA) into the MoU with the GSA;
- The elaboration of a project with budget for the necessary upgrading of the space where the lab will be installed (within the GSA laboratory premises), according to international standards for GMOs Laboratories;
- The identification of the minimum staff for the Lab and of the modalities of their recruitment and training.

Recommendation 5:

The Evaluation recommends giving effective steps for the revision and improvement of the whole Monitoring and Reporting System of the Projects, particularly addressing:

- Awareness raising and capacity building of Projects' Teams on the relevance and implementation of effective Project Monitoring and Reporting Systems, based on a sound "Project Management by Results";
- Putting in value, review and improve the existing Monitoring and Reporting tools (particularly the "Costed M&E Plan", the "GEF Tracking Tools" and the "Project Implementation Review" / PIR), as living instruments for the setting of appropriate Project Monitoring Systems at Project level.

1 Introduction

1. In its capacity as an Implementing Agency of the Global Environmental Facility (GEF), UN Environment has been providing administrative and technical assistance to countries participating in the Cartagena Protocol on Biosafety for the development and implementation of National Biosafety Frameworks. The frameworks are a combination of policy, legal, administrative and technical instruments enabling the countries to manage the safe transfer, handling and use of Living Modified Organisms (LMOs) from modern biotechnology².

2. This is the final report of the Terminal Evaluation of the Project “Implementation of the National Biosafety Framework for Ghana” (GFL/5060-2716-4C41). The project is a Medium Size Project financed through GEF-4 mechanism and belongs to GEF Biodiversity Focal Area. It is relevant to GEF Strategic Programme 6 Biodiversity (BD-SP6): Building Capacity for the Implementation of the Cartagena Protocol on Biosafety. The Project makes part of UN Environment Biennial Programme of Work (MTS 2010-2013 and MTS 2014-2017), as discussed in chapter 5.1.1.

3. The project was approved by GEF on 27/02/2012 and signed by UN Environment on 02/05/2012 for a duration of 3 years (2012-15). The total budget of the project is US\$ 1.436.364, 44% of which represents the GEF allocation (US\$ 636.364), and the remaining 56% (US\$ 800.000) to be provided by the Government of Ghana. The Project has been granted 2 no-cost extensions for a total of 26 months, shifting its Official End date to 01/07/2017

4. The National Executing Agency of the Project was the Biotechnology and Nuclear Agriculture Research Institute (BNARI) of the Ghana Atomic Energy Commission, a technical agency under the Ministry of Environment, Science and Technology (MEST)³.

5. The Evaluation took place in the period between May to November 2017 and included a mission to Ghana from 21/10/2017 to 28/10/2017. The Evaluation Team consisted of one consultant specialist of projects evaluation in the environmental sector (See Annex 8) working under the methodological guidance of the Evaluation Office of UN Environment.

2 Evaluation methods

2.1 Overall approach of the Evaluation

6. In line with the UN Environment Evaluation Policy and Evaluation Manual and following the Guidelines for GEF Agencies on Conducting Terminal Evaluations, the Terminal Evaluation has been undertaken upon 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 had two primary purposes:

² In this Report, the terms Living Modified Organism (LMO) and Genetically Modified Organism (GMO) are considered synonymous and indifferently used.

³ Currently Ministry of Environment, Science, Technology and Innovation (MESTI)

- (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, the National Executing Agency and the national partners.

7. The report follows the format for Terminal Evaluations provided by the UN Environment Evaluation Office. According to the UN Environment evaluation methodology, most criteria have been rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability is rated from Highly Likely (HL) down to Highly Unlikely (HU). Ratings are provided at the end of the assessment of each evaluation criterion (Chapter 5: Findings) and the complete ratings table is included under the Conclusions section (6.1).

8. As requested by the UN Environment methodology for Terminal Evaluations, an Inception Report was produced at the beginning of the mission, containing a review of the project context, of the quality of project design, a draft reconstructed Theory of Change of the project, the evaluation framework and a tentative evaluation schedule. The Inception Report underwent a Peer Review at the UN Environment Evaluation Office and has been shared with the Biosafety Task Manager at UN Environment.

9. The Evaluation has fostered a participatory approach with key stakeholders at national level. During the preparation of the field visit, the consultant, with the support of Biosafety Task Manager at UN Environment, has come to contact with the National Executing Agency and the National Biosafety Authority and has shared with them some preliminary tools to systematise and discuss main achievements (see following section 2.2).

10. Through a well organised agenda, the Consultant has met the main national key-players during the country visit and has largely and openly discussed with them relevant strong and weak points regarding Project's implementation, performance and sustainability.

11. Taking into account that the Project was expected to mostly deliver institutional and capacity building outputs and outcomes, quantitative outputs have been assessed against their quality and effectiveness, hence their capacity to drive and sustain changes at higher level of objectives. The process for the attainment of Project's results has also been assessed, in order to capture the level of participation and ownership of the different stakeholders involved, as well as to better understand the reasons for successes or failures.

12. Whenever possible, the information received during the visit or acquired through the desk review (reports, etc.) has been triangulated through personal interviews with project stakeholders. Divergent views have also been captured during the field mission and through the review of existing local media (e.g. newspapers, websites, etc.).

2.2 Methods and tools for data collection and analysis

13. Overall, the Terms of Reference (TOR) of the Evaluation and the methodological tools and formats provided by the UN Environment Evaluation Office have proved to be a robust methodological framework for the Evaluation exercise, facilitating the systematisation and presentation of the evaluation findings.

14. The Desk Review of all project documents and reports filed in the e-platform ANUBIS (A New UNEP Biosafety Information System) has been most helpful to gather relevant information regarding the technical and financial performance of the Project.

15. The Inception phase of the Evaluation has permitted a preliminary approach to the Project and the delivery of the Inception Report, which laid the foundation for the main report in some essential aspects, by including:

- The thorough Review of the Project Design Quality (PDQ) that has highlighted strong and weak points of Project Design (see section 5.2), particularly of the Logical Framework (Logframe);
- The construction of the Theory of Change of the project (see chapter 4);
- The Stakeholders analysis, which has put in evidence the expected roles and responsibilities of the main key-players of the Project, laying the ground for the assessment of the effective institutional framework of the Project and of its institutional sustainability (see chapter 3.3);
- The integration of supplementary and specific questions to the evaluation key-questions defined in the evaluation framework of the Terms of Reference.

16. Exchanges with the Evaluation Manager of UN Environment Evaluation Office and with the UN Environment Task Manager / Biosafety have been constant and most useful to clarify issues of methodological and technical nature regarding the evaluation development and the project implementation.

17. Some tools prepared in advance by the Consultant have been shared with the Project team before the fielding of the mission, notably a revised matrix of Project Outputs integrated by consultant's questions and comments and the Financial Tables. All of them have been discussed with the Project Team and relevant stakeholders during the country visit.

18. The country visit lasted 5 days and has permitted to directly meet and interview Project's key-stakeholders including representatives of the National Executing Agency, members of the Board of the National Biosafety Authority (NBA) and of the Technical Advisory Committee (TAC), some of the partner institutions and, of course, the National Project Coordinator (also Chief Executive Officer of the NBA and Focal Point for the Cartagena Protocol and for the Biosafety Clearing-House), the Financial Assistant of the Project and the staff of the NBA (see list in Annex 3).

19. The main methods and tools used in the Evaluation can be summarised as follows:

- A Desk Review of all project documents and tools the consultant had access to (see Annex 5), including the ANUBIS e-platform;
- Exchanges with the Project Management Team at UNEP, namely the Task Manager;
- Revision of the Final Project Outputs (posted in ANUBIS) and elaboration of comments and questions, shared with the National Project Coordinator before fielding the mission and extensively discussed with him during the visit;
- A Country Visit, which included:

- Meetings and continuous exchange with the Chief Executing Officer of the National Biosafety Authority (NBA), also National Project Coordinator (see above);
- Meetings with main Project's Stakeholders (see above);
- Visit to the Ghana Standards Authority (GSA) where the laboratory equipment is stored and will be installed;
- Drafting of preliminary Conclusions and Recommendations and discussion with the National Project Coordinator in the final de-briefing.

20. This Terminal Evaluation is part of a cluster of three Evaluations that included two other similar Projects of Implementation of the National Biosafety Frameworks in Liberia and Nigeria. Actually, the field missions in the three countries were carried out back to back and a Comparative Analysis has also been produced (Annex 7), as requested by the Terms of Reference of the Evaluation (Annex 2).

3 The Project

3.1 Context

21. Ghana has been involved in Biotechnology research and development in different sectors (industrial, health, agricultural) since the '90s through a well-established network of national research centres and institutes and the support of international institutions. The National Executing Agency of the Project, the Biotechnology and Nuclear Agriculture Research Institute (BNARI), is, in fact, one of the most active agencies of the sector.

22. While modern biotechnology is regarded in Ghana as a promising factor for the improvement of the living conditions of the population, for the increase in food production and for providing better health facilities, there is also a genuine concern on its potential risks. The creation of the first National Biosafety Committee and Draft Biosafety Guidelines dates to 1992. In 2003, Ghana ratified the Cartagena Protocol on Biosafety and moved steadily toward the establishment of a National Biosafety Framework (NBF) that has evolved through the contribution of several government ministries, agencies, universities and research institutions.

23. In this endeavour, the country has received international support, such as the Program for Biosafety Systems (PBS) funded by the USAID (United States Agency for International Development) and the GEF/UN Environment Project "Development of the National Biosafety Framework (2002-2004), which, among others, prepared the draft of a Biosafety Bill and different Biosafety Guidelines. Other international players have also been and still are playing a relevant role in supporting Biosafety agenda in Ghana, as discussed in chapter 5.1.4.

24. In 2007, in absence of a national Biosafety Law, a Regulation on laboratory and confined field trials was approved, as a subsidiary legislation to the existing Council for Scientific and Industrial Research (CSIR) Law based on guidance of legal and scientific experts in Ghana and the Attorney General's Office. Five field trials have been so far authorised, of which four are still ongoing.

25. Eventually, in 2011, the country approved the National Biosafety Law (Act 831) drafted in 2004 that also created the National Biosafety Authority (NBA), functioning as an agency of the Ministry of Environment, Science, Technology and Innovation (MESTI). The current Project was, in fact, conceived to strengthen the institutional and human capacity to fully implement the National Biosafety Framework in the context of the new Biosafety Law of 2011.

26. To fully understand the value of the achievements obtained so far, as well as the delays experienced by the Project in its implementation, it is relevant to underline the overall political context of the country during Project's life. Ghana has a consolidated political framework corroborated by a series of democratic elections in the last two decades, regularly and peacefully realized every four years. While this context has proved most favourable to the enhancement of the overall governance profile of the country, it has also brought about the legitimate variation of Governments from 2000 onward, with evident implications for the smooth advancement of the Biosafety agenda in the country, as further described in chapter 5.4.1 (Achievement of Outputs).

3.2 Objectives and components

27. According to the ProDoc (Project Document), the Project objective is "To strengthen and evolve the institutional and human capacity needed to meet the critical challenges in the operationalisation of the National Biosafety Framework and the obligations under the Cartagena Protocol on Biosafety". The Logical Framework (Logframe) of the Project comprises 4 main Components, each of them with at least one expected Outcome, plus 2 support-components (Project's Monitoring & Evaluation and Project's Management). The 4 main Components of the Project and correspondent Outcomes are outlined in following Table 1.

Table 1: Components and Outcomes of the Project (according to Project Logframe)

Components	Outcomes
1. Stocktaking and Biosafety Policy integration	A baseline established for the design of the implementation project. Biosafety integrated and incorporated into the biotechnology and biosafety policy with specific action plans and related sustainable development plans
2. Strengthening the Biosafety Regulatory and Administrative System	A fully functional and responsive regulatory and administrative system with implementation regulations, guidelines and operational procedures in line with CP and other relevant international agreements and national needs in relation to the management of modern biotechnology
3. Monitoring and Enforcement	A functional national system for "follow-up" activities, namely monitoring of environmental effects and enforcement
4. Public awareness and participation	A functional national system for public awareness, education, participation and access to information

3.3 Stakeholders

28. The National Biosafety Act of 2011 (Act 831/2011) has clearly defined the institutional framework of Biosafety in Ghana and the pivotal role of the National Biosafety Authority (NBA), as

outlined in following Diagram 1 and Table 2. The Act also established the Board of the NBA as the Governing Body of the Authority, whose membership is listed in Diagram 1, here below.

29. Succinctly, six main Biosafety actors (or group of actors) must be considered as Biosafety key-stakeholders:

- a. The National Biosafety Authority (NBA) has a pivotal coordinating role: it is the Competent National Authority and National Focal Point for the CPB and has the overall responsibility to receive, process, respond to and making decisions on applications regarding GMOs resulting from biotechnology (see following Table 2 and Diagram 1);
- b. The Board of the Authority is the governing body of the NBA and, as such, it is formally responsible for the decision made by the Authority. It is a collegial body with a membership clearly defined by the Law (see diagram 1) and its members remain in charge for three years and a maximum of two consecutive mandates.
- c. The Technical Advisory Committee (TAC), also created by Act 831/2011, plays a key-role in Risk Assessment and Risk Management (hence, in the decision-making process), as described in Table 2. Its membership is also clearly defined, as visualised in Diagram 1.
- d. Pre-existing Regulatory Agencies are the front-line agencies in charge of the operationalisation of the Biosafety Framework in their respective sectors (e.g. Food Safety, Plant Production, Customs, etc.). The Law clearly identifies seven Regulatory Agencies (they are listed in Diagram 1). The coordination between the NBA and the Regulatory Agencies is discussed later in this Report, under chapter 5.4.1 (Achievement of Outputs).
- e. The Appeals Tribunal, to whom applicants may appeal in case of procedural or substantive faults in the decision of the Authority;
- f. Institutional Biosafety Committees, to be established in each Institutions and organizations, public or private engaged, or with the intent to engage, in the purchase, construction, propagation or field release of genetically modified organisms or their products.

30. As a measure to foster women participation in the Board of the Authority, the Biosafety Act requires that at least one of the representatives of the Academic and of the NGOs should be a woman. As a matter of fact, the Evaluation has found that also the chair of the Technical Advisory Committee (sitting in the Board, too) is a woman and women are also well represented in the Appeals Tribunal equally foreseen by the Law.

Diagram 1: Key-players

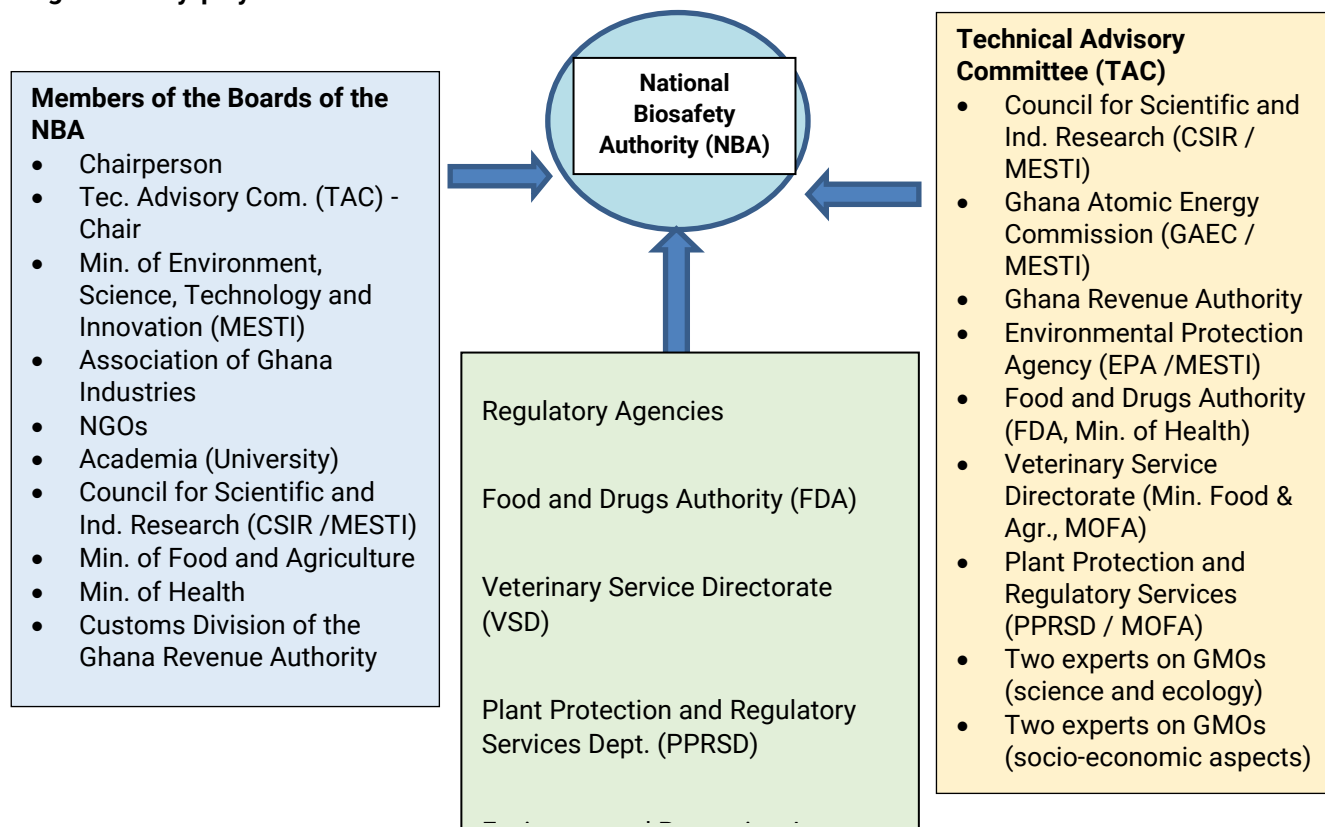


Table 2: Role and responsibility of key-players

Interest and power over project results/implementation	Institutional role and responsibilities	Expected changes through project implementation
Stakeholder: National Biosafety Authority (NBA) , created by the National Biosafety Act 831 of 2011.		
<ul style="list-style-type: none"> The National Biosafety Authority (NBA), created by Law in 2011, has become operational in 2015. From then onward, it has assumed <i>de facto</i> the coordination of Project implementation (as discussed in following chapter 3.4) 	<ul style="list-style-type: none"> Competent National Authority and National Focal Point for the CPB. Overall responsibility to receive, process, respond to and making decisions on applications regarding GMOs resulting from biotechnology; National Focal Point for liaising with agencies and organisations concerned with biotechnology and biosafety Promotes public awareness, participation and education regarding biotechnology and biosafety <p>The <u>Governing body of the NBA is a Board</u> with a membership defined by the Law. (see diagram above)</p>	<ul style="list-style-type: none"> To be further empowered (institutionally and technically) and fully operational for playing its key-role of overall coordination and management of Biosafety in the country Full institutional uptake of the results of the Project
Stakeholder: Technical Advisory Committee (TAC) , created by the National Biosafety Act (831/2011), art.27		
<ul style="list-style-type: none"> TAC plays a key-role in making the NBF fully operational, by delivering scientifically-sound advice in decision-making process regarding GMOs key- 	<ul style="list-style-type: none"> Advisory, independent body on issue regarding GMOs introduction and development, contained use, import and export, Regulations and Guidelines; 	<ul style="list-style-type: none"> Improved quality advising through capacity building of GMOs national experts Improved participation and

Interest and power over project results/implementation	Institutional role and responsibilities	Expected changes through project implementation
issues, with emphasis on Risk Assessment and Risk Management.	<ul style="list-style-type: none"> Key-role in Risk Assessment and Risk Management <p>It includes 11 members (see diagram above)</p>	transparency in decision-making on GMOs issues
Stakeholder: Regulatory Agencies (listed in Schedule 5 of the National Biosafety Act)		
<ul style="list-style-type: none"> Regulatory Agencies play a relevant role in making the NBF fully operational, by ensuring appropriate regulatory, administrative, monitoring and enforcement systems in their area of competence as per the National Biosafety Act 831. 	<ul style="list-style-type: none"> Play a key-role in managing GMOs issues (regulatory, administrative and monitoring systems) in the specific area of their competence under the coordination of the NBA Some of the Agencies are members of the TAC and are Competent National Authorities for plant protection, animal health, food safety and transboundary movements as per obligations to the IPPC⁴, WTO⁵ World Customs Organisation and Codex Alimentarius guidelines. <p>They comprise 7 agencies (see diagram above)</p>	<ul style="list-style-type: none"> Improved performance through capacity building and through consolidation of procedures and mechanisms of coordination with NBA (actually draft MoUs have been prepared during the Project between the NBA and the Regulatory Agencies)
Stakeholder: Appeals Tribunal (established by the nat. Biosafety Act)		
An applicant who is aggrieved by a decision of the Authority “may appeal to the appeals board on procedural or substantive grounds”.	<ul style="list-style-type: none"> The Appeals Tribunal “shall decide an appeal within a reasonable time, not exceeding sixty days, and shall communicate its decision and the reasons for the decision” 	<ul style="list-style-type: none"> Capacity building and improved performance of the Inst. Biosafety Committees
Stakeholder: Institutional Biosafety Committees (according to the Regulations of the Act)		
“To be established in all the Institutions and organizations, public or private engaged, or with the intent to engage, in the purchase, construction, propagation or field release of genetically modified organisms or their products”	<ul style="list-style-type: none"> To enforce the Guidelines and recommend the relevant authority to stop a project if there is a threat to the public, the environment or to laboratory personnel; Overall Monitoring of Biosafety issues within the institution and of compliance with national guidelines; To ensure that laboratory genetic manipulation work within the institution conforms to the Regulations and the Guidelines. 	<ul style="list-style-type: none"> Capacity building and improved performance of the Inst. Biosafety Committees

3.4 Project implementation structure and partners

31. At the time of Project preparation and formulation, the focal point agency for Biosafety in the country was the Biotechnology and Nuclear Agriculture Research Institute (BNARI) of the Ghana Atomic Energy Commission (GAEC), an agency under the Ministry of Environment, Science and Technology (MEST). The Institute had also been the executing agency of the previous GEF / UN Environment Project of Development of the National Biosafety Framework (2002-2004).

⁴ International Plant Protection Convention

⁵ World Trade Organisation

32. With the passage of the Biosafety Act (2011), the new National Biosafety Authority (NBA) was created, which is the current Competent National Authority for the implementation of the Cartagena Protocol. However, considering the incipient stage of the newly created NBA at the time of Project's early implementation and, perhaps, foreseeing delays in its full setting, it was then agreed that BNARI would still host the Project Secretariat, hence acting as the National Executing Agency (NEA) till the end of the Project, which was, in fact, what actually happened⁶.

33. In that context, the National Executing Agency in charge (BNARI) appointed in 2012 the National Project Coordinator (NPC) supported by the National Coordinating / Biosafety Committee (NCC / NBC)⁷, which has been quite active (six Committee's meetings are reported in the Progress Reports, the last one is from June 2016). They acted as the main players until 2015, when the National Biosafety Authority became effective with the appointment of the Chief Executive Officer (CEO) and the establishment of its governing and advisory bodies. The delayed entry into force of the National Biosafety Authority in 2015 (four years after its establishment by Law) has had obvious implications on Project's results, as discussed more in depth in the appropriate section of this report.

3.5 Changes in design during implementation

34. During its lifetime, the Project has been granted 7 budget revisions, mainly for re-allocating unspent money and also to address delays in procuring experts due to challenges caused by clearances to procure services. The Project has also been granted two no-cost extensions (tot. 26 months), the first of which was accorded in May 2015 for 20 months (until December 2016), while the second one (6 months, until June 2017) was granted for the administrative closure of the Project. The 20-month extension was basically required to make up for the delays caused by the late enactment of the new Authority and was subject to an Amendment of the Project Cooperation Agreement (PCA) signed in October 2015. Although the change of the National Competent Authority for Biosafety, described in previous section 3.4, has de facto modified the institutional framework of project implementation, the Project design was not affected at all.

3.6 Project financing

Table 3: GEF Budget at design and expenditures by components (October 2017)

Component/sub-component	Estimated cost at design (USD)	Actual Cost (USD)	Expenditure ratio (actual/planned)
1. Stocktaking and Biosafety Policy	45,000	29,872.00	66.4%
2. Regulatory and Administrative Systems	188,000	119,122.48	63.4%
3. Monitoring and Enforcement Systems	250,000	124,269.00	49.7%
4. Public awareness & participation	70,000	6,566.17	9.4%
5. Project coordination, Monitoring and Evaluation	83,364	76,113.87	91.3%
Total	636,364 **	355,943.52	56%

**Advance received: 584,785.53

⁶ Both agencies (NBA and BNARI) refer to the same Ministry, currently denominated Ministry of Environment, Science, Technology and Innovation (MESTI).

⁷ The NCC formed for the previous "NBF Development Project" was retained with some few changes to ensure continuity. This was formed by the Ministry as a project tool but also linked up to the NBC as a sub committee to ensure linkages

Table 4: Co-financing Table

Co-financing (Type/Source)	UNEP own Financing (US\$1,000)		Government (US\$1,000)		Other* (US\$1,000)		Total (US\$1,000)		Total Disbursed (US\$1,000)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
- Grants									
- Loans									
- Credits									
- Equity investments									
- In-kind support			800	430.21			800	430.21	430.21
- Other (*)									
Totals			800	430.21				430.21	430.21

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

4 Theory of Change (TOC) of the project

4.1 The reconstructed TOC of the project: overview

35. The ProDoc did not include any Theory of Change (TOC)⁸ and the Logframe is flawed since it only provides Outcomes without their corresponding outputs. Though the clear identification of the Project's Outputs was not explicitly required at the time of Project's formulation, their absence is a major shortcoming: the concrete products to be delivered by the Project are not clearly specified and the logical sequence of Activities - Outputs - Outcomes is not made explicit in the Project Document. It is equally lacking the clear description of the intervention logic from the Outcomes to the long-term Impact (see chapter 5.2, Project Design). The weak definition of the Logframe and the absence of the TOC (a common situation in all the three countries evaluated) have provided material for a Lesson Learned (see chapter 6.2).

36. The Table here below compares the project's results as stated in the Logical Framework (Logframe) of the ProDoc and as formulated in the Theory of Change (TOC) developed at Evaluation.

Table 5: Comparison of Results

Results as stated in the ProDoc Logframe	Results as stated in the TOC at Evaluation
	Impact
	Enhanced Conservation and Sustainable Use of Biological Diversity in Ghana
	Intermediate States to Impact

⁸ At the time of Project's preparation, the formulation of the Theory of Change of the Project was not requested

	<ol style="list-style-type: none"> 1) Safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements, as requested under art. 1 of Cartagena Protocol (CPB); 2) National Biodiversity Strategy and Action Plan (NBSAP) fully operational
Overall Goal (in the ProDoc)	Main Project Outcome
To assist Ghana to put in place a functional, transparent and robust national biosafety framework, in accordance with national development priorities, and to fulfil its obligations as a Party to the Cartagena Protocol, Agenda 21 and other related international instruments	A fully operational National Biosafety Framework in Ghana
Overall Objective (in the ProDoc)	Intermediate States to Project Outcome
To strengthen and evolve the institutional and human capacity needed to meet the critical challenges in the operationalisation of the NBF and the obligations under the Cartagena Protocol on Biosafety	<ol style="list-style-type: none"> 1) Improved Decision-making processes for LMOs approval, effective implementation mechanisms and enhanced quality information and transparency 2) Improved Governance of National Biosafety systems based upon: Rule of Law and Compliance, Accountability and Liability, Equity, Transparency and Citizens' Participation
Outcomes (in the Logframe)	Immediate Outcomes
<ol style="list-style-type: none"> 1. A baseline established for the design of the Implementation Project 2. Biosafety integrated and incorporated into the biotechnology and biosafety policy with specific action plans and related sustainable development plans 3. A fully functional and responsive regulatory and administrative system with implementation regulations, guidelines and operational procedures 4. A functional national system for "follow-up" activities, namely monitoring of environmental effects and enforcement 5. A functional national system for public awareness, education, participation and access to information 	<ol style="list-style-type: none"> 1. Biotechnology / Biosafety policy in place with specific action plans 2. A fully functional and responsive regulatory regime 3. An administrative system for handling applications, Risk Assessment and Risk Management 4. A follow-up system in place to monitor environmental effects and enforcement 5. A functional system for public awareness, education and participation
Outputs extracted from the Monitoring and Evaluation Plan (App. 7 of the ProDoc) and from Appendix 6 (Key Deliverables and Benchmark) ⁹	Outputs
<ol style="list-style-type: none"> 1) Biosafety Action Plan on biosafety approved by Government 2) Biosafety integrated into national development plans 3) National Biosafety Action Plan published in Government gazette 	<ol style="list-style-type: none"> 1) A baseline established (Stocktaking Report) prepared with clearly identified areas of intervention for capacity building (within the first 6 months of project) 2) Biotech /Biosafety policy reviewed and updated 3) Action Plan with implementing strategy clearly outlined

⁹ The Logframe did not include Outputs

<p>4) Biosafety Bill is promulgated as an Act of Parliament</p> <p>5) Implementing regulations gazetted</p> <p>6) National Biosafety Authority (NBA) is in place supported by a Technical Advisory group in handling requests</p> <p>7) Set of procedures for handling requests including permit and application forms developed</p> <p>8) Checklist based on the national RA guidelines established for RA experts in Ghana</p> <p>9) Training strategy developed with clearly identified training workshops on handling requests and Decision making supported by capacity building activities in RA/RM with the related administrative and information systems</p> <p>10) Clear definition of institutional roles and responsibilities especially for the proposed monitoring and enforcement system</p> <p>11) National Quarantine facility refurbished to facilitate post entry release measures in relation to handling of seeds/plant based LMOs</p> <p>12) Operational guidelines on monitoring and enforcement established and utilised for training</p> <p>13) Existing laboratories upgraded to handle LMO detection</p> <p>14) Public awareness plan with a training strategy published and in use to guide biosafety communication activities</p> <p>15) Main stakeholders, including media and the public, trained on public awareness, participation and risk communication.</p> <p>16) Clearly defined entry points for public participation in decision making process for LMOs.</p> <p>17) National Biosafety Clearing House (BCH) operationalised and updated on a regular basis</p>	<p>4) Biotech / Biosafety Policy endorsed by Cabinet for Parliamentary Approval</p> <p>5) Biosafety regulations and guidelines developed and approved (the Biosafety Law was approved by the Parliament before the commencement of the Project)</p> <p>6) The NBA and the TAC nominated and in place with clearly defined roles and responsibilities.</p> <p>7) Set of procedures for handling requests developed</p> <p>8) Checklist based on national RA guidelines established</p> <p>9) Capacity building in RA/RM and on handling requests and decision making</p> <p>10) Roles and responsibilities defined for monitoring and enforcement</p> <p>11) Guidelines on monitoring and enforcement established</p> <p>12) National Quarantine facility refurbished</p> <p>13) Existing laboratories upgraded for GMO detection</p> <p>14) Public Awareness plan and training strategy elaborated</p> <p>15) Stakeholders trained on public awareness, participation and risk communication</p> <p>16) Clearly defined entry points for public participation in decision making</p> <p>17) National BCH operational and updated</p>
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37. The comparative table above shows a substantive correspondence between the two columns. Main points to be highlighted are:

- The expected Impact, i.e. the Global Environmental Benefit (GEB) to which the Project contributes, not defined in the ProDoc, has been added in the Theory of Change (TOC);
- The Overall Goal defined in the ProDoc has been streamlined and reformulated as the main Project Outcome in the TOC;
- The overall Objective in the ProDoc, namely the “critical challenges” mentioned in it, have been specified and split in two Intermediate States to Outcome in the TOC;

- The first of the Outcomes defined in the Logical Framework (a baseline established for the design)¹⁰ has been considered, in the reconstructed TOC, as a preliminary Output;
- The second Outcome in the Logframe has been split in two separate Immediate Outcomes in the TOC, to unambiguously differentiate Regulatory and Administrative achievements, which are, in fact, conceptually and operationally distinct;
- Due to the lack of Outputs in the Logframe of the Project, they have been defined through the analysis of the Outcomes Indicators and Targets of the Logframe, as well as through two annexes to the ProDoc (the “Key deliverables” table and the “Monitoring and Evaluation Framework”. They have been then streamlined and reformulated in the TOC.

4.2 The causal logic from Outputs to Immediate and Main Project Outcomes

38. Although National Biosafety Frameworks (NBF) vary from country to country, they usually contain five common components:

- A Government policy on biosafety;
- A regulatory regime for biosafety;
- An administrative system to handle notifications or requests for authorisations;
- Systems for ‘follow up’ such as enforcement and monitoring for environmental effects;
- Mechanisms for public awareness, education and participation.

39. The five Immediate Outcomes of the Project actually refer to the establishment of the five components of the NBF outlined here above. The 17 Outputs have been consequently clustered in five groups (one Cluster/Outcome), in such a way that a coherent logic does exist between the Project’s results and the NBF structure (see following diagram 2).

40. The setting and implementation of a National Biosafety Framework involves complex institutional changes and this complexity reflects into the expected results of the Project. Actually, not only the Outcomes, but also most of the Outputs are of institutional nature, entailing policy-making and strategic planning, regulatory measures (regulations and guidelines), mechanisms and procedures of participation, negotiation, coordination and institutional uptake. This kind of changes may not strictly depend on Project’s performance, since many other external factors are playing a crucial role (see Chapter 5.4.1, Achievement of Outputs). Drivers and Assumptions all along the pathways from Outputs to Outcome and Impact are jointly discussed in chapter 4.4.

41. Moreover, due to their inherent institutional feature, some Immediate Outcomes are preliminary to others. It is difficult to create a coherent administrative system (Outcome 3) and a follow-up, monitoring and enforcement system (Outcome 4), when the regulatory regime (Outcome 2) is only partially defined (for instance, in absence of Regulations and Guidelines for the application of the Law). The traced horizontal arrow in diagram 2 visualises these links.

¹⁰ Stocktaking is a direct requirement of the GEF Strategy on Biosafety

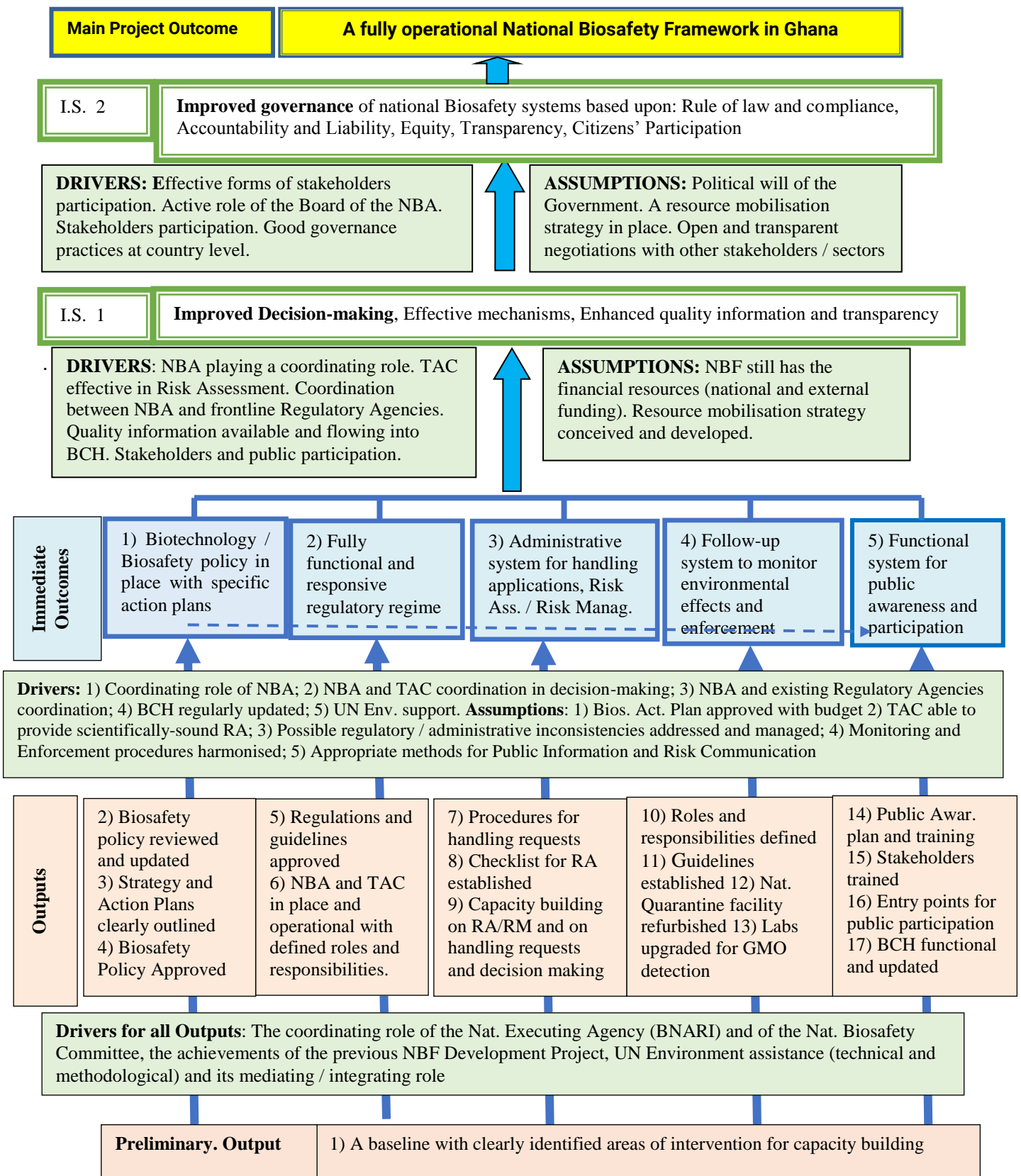
42. The pathway from the five Immediate Outcomes to the main Project Outcome (A fully operational National Biosafety Framework in Ghana) entails two Intermediate States, as visualised in Diagram 2 below.

43. Once the five operational systems are in place (Immediate Outcomes), they jointly contribute to achieve Intermediate State 1 (IS 1) “Improved decision-making processes for LMOs approval, effective implementation mechanisms and enhanced quality information and transparency”. The clearness and solidity of the regulatory regime and the existence of effective participatory mechanisms for decision-making (Immediate Outcomes 2 and 5) are particularly relevant at this stage.

44. Actually, this Intermediate State is a crucial and demanding step for the operationalisation of the National Biosafety Framework (NBF), by requiring, on the one hand, the capacity to effectively carry-out the Risk Assessment exercise, which is a technically complex task, and, on the other hand, the willingness and capacity to consider the wider effects of the decision on the economic, social, cultural and political spheres. By recalling the three main aspects of Sustainable Development (Environmental sustainability, Social acceptability and Economic viability), the decision-making on LMOs approval can actually be one of the circumstances where the principles of Sustainable Development are at stake, hence the great responsibility that this step entails.

45. Effective decision-making processes can lead to Intermediate State 2, i.e. the “Improved Governance of National Biosafety Framework”, based upon rule of law and compliance, accountability and liability, equity, transparency and citizens’ participation. This is also a complex and demanding stage that requires not only the full operationalisation of the five Immediate Outcomes (with emphasis on Imm. Outcome 2, 4 and 5), but also the coordination / negotiation with other actors / sectors that have their own agenda and system of governance, like the Industry and Biotechnology sector, Trade and Customs, the Judiciary system and the organised Civil Society sector. At this stage, as discussed in chapter 4.4 (Drivers and Assumptions), the attitude, willingness, governance capacity and political agenda of decision-makers (Ministries, Government, Parliament) play a substantive role.

Diagram 2: Reconstructed TOC from Outputs to Immediate and Main Project Outcomes



4.3 The pathway from Outcome to Impact

46. The intended impact of the project is the Global Environmental Benefit (GEB)¹¹ to which it contributes: the enhanced conservation and sustainable use of biological diversity in Ghana. The pathway from Outcome to Impact also contemplates Intermediate States (IS).

47. The full operationalisation of the National Biosafety Framework (Main Project Outcome) will allow the country to fulfil its obligations pursuant to the Cartagena Protocol on Biosafety (CPB), as expressed in Art. 1 of the Protocol (see diagram 3), which has been identified as the Intermediate State 3 (IS 3). This step implies that the country has the capacity to sustain and gradually upgrade its operational National Biosafety Framework (NBF) as a response to new challenges and priorities emerged at country level, and in accordance with COP-MOP¹² decisions and recommendations regarding any specific subject contemplated in the Protocol. Regional and International cooperation may play a relevant role at this level.

48. Admitting that a Biotechnology / Biosafety policy is in place with specific action plans (Immediate Outcome 1) and that the Assumptions identified in the pathway to IS 1 and IS 2 regarding the availability of financial resources are fulfilled (see Diagram 2), Biosafety has to be meaningfully integrated in the strategy and plans that the country has identified for the sustainable use of its natural resources, including Biodiversity. The National Biodiversity Strategy and Action Plan (NBSAP) is currently the main strategic instrument for the purpose. This is reflected in the Intermediate State 4 (IS 4) of Diagram 3 here below. Intermediate States 3 and 4 are not sequentially linked, but jointly contributing to Impact.

49. Biodiversity conservation depends also on the impact that other actors / sectors have on the Environment, such as, among others, Agriculture/Rural Development policies, Energy and Industry sectors and Tourism development, as well as on Citizens' foot-print caused by their behaviour. This aspect is also reflected in Diagram 3.

50. It is rightly argued that a fully operational National Biosafety Framework (NBF) is a valuable instrument to fulfil Biosafety requirements, as stated in Art.1 of the Protocol, and this is the foundation of GEF/UN Environment "NBF Implementation Projects" that are expected to establish a virtuous pathway to the intended Impact (Global Environmental Benefit), as visualised in Diagram 3.

51. Countries with a fully operational National Biosafety Framework (NBF) can be increasingly attractive for the Biotechnology sector and GMOs industry that can operate within a clear legal and administrative framework, enhancing the economic foreseeability and viability of their business. This is usually the driving force that nurtures or may nurture the dialogue and cooperation between Biotechnology and Biosafety sectors. This driving force, however, is the result of a negotiating process between the stakeholders from both sectors, based on their negotiating willingness and capacity, but also their specific interests, power and agenda.

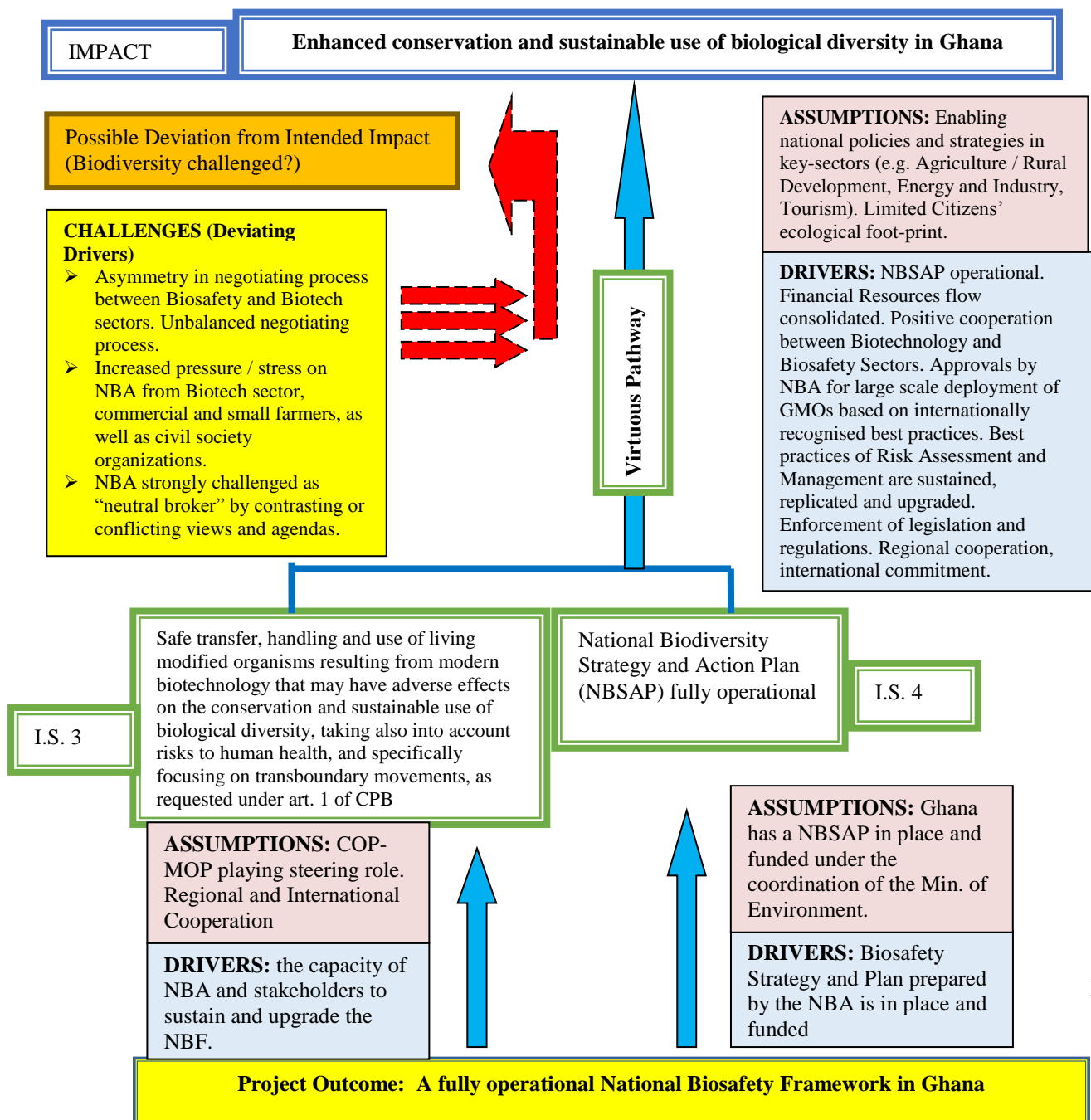
¹¹ The primary aim of the GEF, and of GEF projects, is to achieve a specific category of impacts that are often referred to as —Global Environmental Benefits (GEB). GEB can be defined as the "Lasting improvements in the status of an aspect of the global environment that safeguards environmental functioning and integrity as well as benefiting human society" (GEF Eval. Office, 2009).

¹² Conference of the Parties serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety

52. There is no reason, *a priori*, to doubt that this driving force could hinder the virtuous pathway to Impact mentioned above. This can be particularly true for Ghana, where Biotechnology and Biosafety sectors have a long history of fruitful cooperation. It has, nevertheless, to be recognised that “asymmetry” may exist in this negotiating process, particularly where the Biosafety sector is at initial stage, as far as the environmental release of GMOs is concerned. Moreover, relevant sectors, besides Biotechnology, like commercial and small farmers, as well as civil society organisations can put a strong pressure on the Government and the National Biosafety Authority to accelerate or to deny the approval of GMOs in the country at a large scale.

53. It is undeniable that the challenge for the Biosafety sector may be very high and the capacity of the National Biosafety Authority to govern the process has still to be proved, since no permit for environmental release of GMOs has been requested so far in Ghana. As far as the pathway to Impact is concerned, the key-question is: “how likely is the possibility that the virtuous pathway is somewhat deviated from the expected Impact and that other unintended impacts on Biodiversity conservation may occur?”. This possibility is captured in Diagram 3 below.

Diagram 3: Reconstructed TOC from Main Project Outcome to Impact



4.4 Drivers and Assumptions

54. The National Executing Agency of the Project was the Biotechnology Nuclear Agriculture Research Institute (BNARI). Its large experience in the development of the National Biosafety Framework, also through the previous GEF/UN Environment Project, has been a driving force until 2015, when the new National Biosafety Authority was established. The Institute was also very effective in promoting and supporting a collaborative mechanism, the National Coordinating / Biosafety Committee, another relevant driving stakeholder.

55. The technical and methodological support of UN Environment has been an effective driver all along the process of Ghana's Biosafety Framework Development and Implementation. The achievements of the previous GEF/UN Environment Project of "Development of the National Biosafety Framework" (2002-2004) have been particularly strong drivers in the implementation of the current Project, since the bulk of the institutional framework of Biosafety was conceived and prepared during that Project.

56. The Project has played a critical role by ensuring the continuity and the smooth integration of old and new instruments of the Framework in a sensitive transition phase. This continuity has been evident by the driving role of the National Executing Agency, as described in chapter 3.4 (Project implementation structure and partners). UN Environment has also played a key-role in mediating and integrating country's agenda on Biotechnology (including international partners and funding agencies) and country's obligations pursuant to the Cartagena Protocol on Biosafety.

57. Mainly due to the delayed setting (2015) of the new National Biosafety Authority (NBA), there are relevant assumptions that, if not fully satisfied, would deprive or minimise the driving forces to Project Outcome (see Diagram 2), such as the coordinating role of the NBA, the pivotal role of its Board in decision-making, the effectiveness of the Technical Advisory Committee (TAC) in providing scientifically-sound Risk assessment and the definition of "entry points" for effective public participation, among others.

58. There are also relevant assumptions regarding the availability of financial resources to effectively implement all the systems established, which should happen if a National Biosafety Action Plan is approved and funded, and a medium-long term resource mobilisation strategy is conceived and developed.

59. The pathway to Impact implies that the country has the capacity to sustain and gradually upgrade its operational National Biosafety Framework (NBF) as a response to new challenges and priorities emerged at country level, and in accordance with COP-MOP decisions and recommendations regarding any specific subject contemplated in the Protocol. Regional and International cooperation may also play a relevant role at this level. A conducive overall policy framework in the country is also a strong assumption.

5 Evaluation Findings

5.1 Strategic relevance

5.1.1 Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)

60. The Project spans over two UN Environment Medium-Term Strategy (2010-2013 and 2014-2017) and three Biennial PoWs (Programme of Work), i.e. 2012-2013, 2014-2015 and 2016-2017, Sub-Programme Environmental Governance. Table 6 here below provides a summarised outline of the contribution of the Project to the Expected Accomplishment (EA) of the Sub-Programme Environmental Governance in the two Medium-term Strategies.

Table 6: Contribution of the Project to the Medium-Term Strategy (MTS)

Expected Accomplishment (EA)	Contribution of the Project
MTS 2010-2013 , Sub-programme Environmental Governance, EA(b) : States increasingly implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions	<ul style="list-style-type: none"> • Overall support to the implementation of the NBF • Biosafety Policy • Biosafety Law and Regulations, Guidelines • Establishment of the National Biosafety Authority (NBA)
MTS 2014-2017 , Sub-programme 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;	<ul style="list-style-type: none"> • Overall support to the implementation of the NBF • Biosafety Policy • Biosafety Law and Regulations, Guidelines • Establishment of the National Biosafety Authority (NBA) • Capacity Building in Risk Assessment and Management • Capacity building and outreach activities of Public Awareness and Information • National website linked to BCH

5.1.2 Alignment to UN Environment /GEF Strategic Priorities

61. The project is a Medium Size Project (MSP) financed through GEF-4 mechanism and belongs to GEF Biodiversity Focal Area. It is relevant to GEF Strategic Programme 6 (BD-SP6): Building Capacity for the Implementation of the Cartagena Protocol on Biosafety.

62. Given its focus on Capacity Building and, to some extent, on Technology Support (for instance training in Risk Assessment, Risk Monitoring, Laboratory), the Project is surely aligned with Bali Strategic Plan (BSP). The project has been active in addressing many of the cross-cutting issues listed in Section D of the Plan, such as the Strengthening of national institutions, the Development of national law and regulations and the Compliance with obligations under multilateral environmental agreements. Gender issues were not specifically addressed by the Project.

63. The Project has also promoted South-South Cooperation on Biosafety at regional and sub-regional level (West Africa Region) and benefited from the support of the African Biosafety Network of Expertise (ABNE) and the Program for Biosafety Systems (PBS) for capacity building activities, as described in following section 5.1.3.

5.1.3 Relevance to Regional, Sub-regional and National Environmental Priorities

64. The safe uptake of Biotechnologies (see 3.1) is regarded as a priority in Ghana both for food security and for market purposes. As discussed in chapters 5.4.1 and 5.4.2, the Project has

strongly supported the insertion of Biosafety into the National Development Policy Framework 2018-21, hence contributing to the sustainable goals of the Framework.

65. The same may apply to the West Africa Region, which is promoting a regional agenda of development and cooperation, mainly through the Economic Community of West African States (ECOWAS), also in the area of Biotechnologies and Biosafety. In this context, the project has been instrumental to the promotion of forms of regional and sub-regional cooperation, particularly in the area of Capacity Building and in the development of the ECOWAS Biosafety harmonisation activities.

66. The Project has also been relevant in putting in value (and benefiting from) the African Biosciences Initiative in Africa, financed by the New Partnership for Africa's Development (NEPAD) that has initiated the African Biosafety Network of Expertise (ABNE), with whom the Project has substantively cooperated¹³.

5.1.4 Complementarity with Existing Interventions

67. The Project was conceived to implement the National Biosafety Framework (NBF) formulated through the support of the previous GEF/UNEP Project "Development of the NBF" (2002-2004) and built upon the achievements and the institutional network created in the context of the previous project.

68. The NBF has steadily evolved through the contribution of several government ministries, departments and agencies, universities and research institutions, regulatory agencies, as well as private sector and NGOs. As discussed later in this report (chapter 5.4.1), Biosafety has been included in the National Biodiversity Strategy and Action Plan (NBSAP), which has been revised through the GEF funded Project "Support to Ghana for the Revision of the National Biodiversity Strategy and Action Plan (NBSAP) and Development of Fifth National Report to the Convention on Biological Diversity (CBD)".

69. The Project has also been complementary to and benefited from the Program for Biosafety Systems (PBS) funded by the United States Agency for International Development (USAID), as mentioned under section 3.1 (Context), and the co-operation programmes of the Bill Gates Foundation that provides also support to the PBS and to the NEPAD/ABNE initiative mentioned above.

70. As a whole, the strategic Relevance of the Project can be rated as **HS (Highly Satisfactory)**.

5.2 Quality of Project Design

71. The Project Design Quality (PDQ) has been assessed in the Inception Report of the Evaluation, through the detailed "Template for the assessment of the Project Design Quality (PDQ)" prepared by UNEP Evaluation Office, which contemplates a rating system, based on a six-point scale: Highly Satisfactory (6), Satisfactory (5), Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), Highly Unsatisfactory (1).

¹³ The main objective of ABNE is the provision of biosafety resources for African regulators in decision making on safe use, deployment and management of biotech products that are locally developed, imported and adopted in Africa

72. According to the Project Design Quality (PDQ) assessment, the main strengths of the Project Design were the sections regarding Relevance, Sustainability, Efficiency and Financial Planning. Actually, regarding Relevance, the Project Document (ProDoc) is convincing in showing the alignment of the Project with relevant national strategies, like the National Biodiversity Strategy and the Poverty Reduction Strategy, as well as its integration within the on-going sub-regional processes regarding harmonization and consolidation of a Biosafety strategy within the ECOWAS (Economic Community of West African).

73. Chapter 3.8 of the ProDoc (Sustainability) is coherently developed through Political & Financial, Institutional and Environmental Sustainability. Institutional Sustainability is particularly emphasized. Efficiency is well discussed, particularly highlighting the linkage with the previous GEF/UN Environment Project "Development of the NBF" (2002-04) and with other bi-lateral cooperation programs on Biosafety. Several examples of existing resources (human and institutional) that would permit synergies and cost-reduction are also provided. The budget of the Project is well structured according the 6 main planned activities, well detailed and balanced through its budget lines.

74. The Project Design was found weak in some relevant chapters, like Project Preparation, Intended Results and Causality, and Logical Framework and Monitoring. Regarding Project Preparation, Chapter 2.1 (Background and Context), 2.3 (Threats, root causes and barrier analysis), 2.6 (Baseline analysis and gaps) and 3.1 (Project rationale) provide a descriptive, rather than critical, problem analysis and contain redundant and indecisive information. The information about stakeholders is dispersed in different parts of the ProDoc and not reader-friendly, while the specific chapter 2.5 (Stakeholder mapping and analysis) is quite poor and does not supply an adequate analysis.

75. Chapter 3.4 of the ProDoc (Intervention logic and assumptions) is off-topic and does not provide meaningful information regarding the Intended Result and their Causality. The causal pathway linking Activities, Outputs, Outcomes and Impact is not discussed. The Project Framework of Results (Logframe) is incomplete (only Outcomes are contemplated) and most of the "indicators targets" are, in fact, Outputs, rather than Outcome indicators. Moreover, many of them are not quantified and vaguely expressed (e.g. Implementing regulations gazetted, training materials, outreach materials). The Costed M&E Plan (App. 7 to the ProDoc) presents some useful elements (baseline, mid-term and final targets), yet, as in the Logframe, Outcome indicators are confused with Outputs. There is no mention of other monitoring tools permitting a constant and regular monitoring of Project activities and Outputs delivery by the Project Team. In fact, only the Task Manager and the Steering Committee are identified as key actors for Monitoring in Section 6 of the ProDoc (Monitoring and Evaluation), while no mention is made to the role of the NPC (Nat. Project Coordinator), which looks incoherent.

76. Overall, the ProDoc was not considered a reader-friendly document, quite redundant in some sections and somewhat "patchy" in its development, and not helpful in conveying an immediate image of the intervention. The final rating of the Project Design (processed through a table that multiplies the score of each criterion for a coefficient of weighting defined by UN Environment Evaluation Office) resulted Moderately Unsatisfactory.

77. The quality of Project Design is, in fact, generally weak in all the three projects evaluated in the current evaluation (Ghana, Liberia, Nigeria), which show similar, recurrent shortcomings.

5.3 Nature of the External Context

78. Overall, the external context of the Project has been evaluated as Favourable, not being affected by unusually challenging operational environment, like natural disaster or conflicts.

5.4 Effectiveness

5.4.1 Delivery of outputs

79. Output 1 (A baseline established) has been delivered through a Stocktaking Report prepared in the inception phase of the Project, identifying areas of intervention for capacity building. As for the Project's Outputs identified in Diagram 2 of the Theory of Change, the main findings are the following:

Outputs 2, 3 and 4 (Diagram 2, Theory of Change) related to the Immediate Outcome 1 (Biotechnology / Biosafety policy in place with specific action plan)

80. The draft of the "National Biotechnology and Biosafety Policy of Ghana" has been produced in 2014 through a participatory process involving the main stakeholders of both sectors. As clearly expressed in the preface of the draft, the policy represents "the culmination of a process" that began almost twenty years ago and has gradually been enriched and completed with the participation of various national and international stakeholders. Nevertheless, as stated in the Implementation Framework of the Policy, "there is the need for an Action Programme that will specify the roles and responsibilities of institutions in the task of coordination, monitoring and evaluation of policy implementation".

81. As a matter of fact, two major steps have been recently given for the implementation of the Policy. On the one hand, Biosafety has been substantially integrated in the revised National Biodiversity Strategy and Action Plan (NBSAP) formulated in 2016, where six out of the twenty Action Plans include specific targets regarding Biosafety.

82. On the other hand, the National Biosafety Authority has recently prepared a "Draft National Biosafety Authority's Sector Medium Term Development Plan (2018-2021)" and submitted to the line- Ministry of Environment, Science, Technology and Innovation (MESTI). The Plan contains several planning tools to frame Biosafety strategy within the national strategic planning, such as the Ghana Shared Growth and Development Agenda (GSGDA) and, foremost, the National Medium-Term Development Policy Framework (NMTDPF), which is the overall strategic planning tool for country's development.

Outputs 5 and 6 (Diagram 2, Theory of Change) related to the Immediate Outcome 2 (Fully functional and responsive regulatory regime):

83. The National Biosafety Law of 2011 (Biosafety Act 831), whose promulgation was a key-output expected to be delivered through the Project, was in fact approved in the hiatus between the

project approval and its actual commencement. The draft of the law was already part of the National Biosafety Framework prepared in 2004 and all national stakeholders consider that the overall political and institutional context of the country has to be regarded as the main factor causing the large delay in the Law's approval.

84. In fact, as previously mentioned in Chapter 3.1 (Context), Ghana, from 1992 onward, has regularly and democratically changed Government and Parliament every four years and, though each Government has not lacked the political will to introduce a specific legislation on Biosafety, the new-elected policy and decision-makers had to be recurrently contacted, informed and sensitised about Biosafety and the pending Law, which has been an intensely energy and time-demanding process.

85. Actually, the continuous and patient work of awareness raising, information and communication, lobby and advocacy towards the line-Ministries, the Government and the Parliament has proved to be a cumbersome endeavour but, eventually, the Biosafety Act was approved by the Parliament in 2011.

86. The approval of the implementing Regulations of the Law has proved to be an intricate process, too. Governmental reshuffles and the change of the line-Ministry¹⁴ in 2013 has brought about delays but, eventually, the draft Regulations were submitted to the Cabinet in 2014. As a matter of fact, the process did not move forward smoothly, because procedural mistakes and some technical inconsistencies were identified, requiring further revision on some points. As yet, the Regulations have been submitted to the Min. of Justice and Attorney General for their final review and onward submission to the Parliament for approval.

87. It must be observed that, at any rate, the Biosafety Act 831 of 2011 explicitly states that, in absence of new regulations, existing Regulations of 2007¹⁵ remain in force. Nevertheless, they refer to a different institutional framework, where the National Biosafety Authority did not exist, and the Competent National Authority was, at that time, the National Biosafety Committee. Moreover, they were exclusively focussed on Laboratory and Field Trials and that is the reason why there is still the need for new Regulations to be approved.

88. Some guidelines prepared under the previous Project (Development of the National Biosafety Framework, 2004) have been revised, adopted and published in the NBA website and in the global BCH. They are: Administrative Guidelines, Public Participation Guidelines and Risk Assessment Guidelines, which are valuable guiding instruments in their respective areas. A new Guideline specifically regarding the Environmental Release of GMOs has been recently drafted with the support of the ICGEB (International Center for Genetic Engineering and Biotechnology) and is being discussed among the stakeholders.

89. The setting of the National Biosafety Authority (NBA) established by the Biosafety Act of 2011 has also proved to be more energy and time-consuming than originally foreseen, due to some institutional issues to be worked out, bureaucratic inertia and logistic problems to be solved (e.g. premises). The Board of the Authority, the Technical Advisory Committee and the Chief Executive

¹⁴ Min. of Environment, Science, Technology and Innovation (MESTI)

¹⁵ As a way to by-pass the delays and difficulties of the approval of the Law, the "Biosafety (Management of Biotechnology) Regulations" were issued in 2007 by the Min. of Environment, Science and Technology in application of the Council for Scientific and Industrial Research (CSIR) Act of 1996, to allow for Confined Field Trials and Laboratory activities (see Context, chapter 3.1).

Officer (CEO) of the Authority have only been appointed in 2015 and the Appeals Tribunal equally foreseen by the Law has been recently formed (2017). After the general elections of 2016 and subsequent change of Government, some of the initial members of the Board have recently (2017) changed. Since their setting in 2015, both the Board and the TAC did not have any opportunity to make decisions, since no new application has come about.

90. The technical and administrative staff of the NBA Secretariat have been gradually increasing and currently includes 10 out of the 25 staff foreseen in the organisational structure (4 Technical staff including the CEO and 6 Administrative staff including drivers). The Project has supported some costs for staff, premises and equipment of the new Authority. For the time being, virtually all the staff of the Authority have been seconded by other institutions (e.g. the Biotechnology Nuclear Agriculture Research Institute, National Executing Agency of the Project and the Council for Scientific and Industrial Research), which, on the one hand, has permitted to overcome some budgetary restrictions of the Authority, but, on the other hand, did not allow a regular process of selection among suitable candidates. Though the location of the office of the Authority seems favourable to the coordination with other main Biosafety stakeholders, the office conveys the image of an institution still at a very early stage of setting, both in terms of staff work-planning and of equipment (among others, lack of computers and of internet connection).

91. The seven frontline Regulatory Agencies foreseen by the Law (see Table 2 and Diagram 1 in chapter 3.3) have been in place for years and the new National Biosafety Authority has prepared and discussed with them a common Memorandum of Understanding to capture and specify their roles and responsibilities. The Memorandum has been signed so far by five out of the seven agencies: the Food and Drugs Authority, the Veterinary Service Directorate, the Plant Protection and Regulatory Service, the Environmental Protection Agency and the Ghana Standards Authority.

92. Every institution dealing with GMOs is required by Law to establish an internal Institutional Biosafety Committee (IBC) to functionally link with the Authority on matters regarding Biosafety (see chapter 3.3). The role of these Committees is considered crucial by all stakeholders, to appropriately implement biosafety measures both in confined and open environment. Some of the Institutional Biosafety Committees of the Regulatory Agencies, particularly those related to the Plant Protection and Regulatory Service Department (PPRSD), are generally considered very solid and already in full capacity to play their role.

Outputs 7, 8 and 9 (Diagram 2, Theory of Change) related to the Immediate Outcome 3 (Administrative system for handling applications, Risk Assessment and Risk Management):

93. Five authorizations for GMOs field trials have been issued so far, of which four are still on-going. The authorisations were issued in 2012 / 2013 by the National Biosafety Committee (at that time Competent Authority for Biosafety in absence of the National Biosafety Authority), based on the Regulations of 2007 (see above) and have been posteriorly endorsed by the Technical Advisory Committee set by the new Act of 2011¹⁶.

¹⁶ The on-going trials regard the following four crops: Cowpea and Cotton (Savannah Agricultural Research Institute), Sweet Potato and Rice (Crops Research Institute). In fact, Cotton field trial has been suspended in 2017 after Monsanto's

94. Foreseen training and capacity building activities on Risk Assessment and Management were not fully implemented, due to the delays in setting the new regulatory and institutional framework. Nevertheless, a first attempt to introduce socio-economic consideration in decision-making has been carried out, through a workshop on “Identification of Socio-Economic Priorities to be taken into consideration for Decision Making”, organised in 2016.

Outputs from 10 to 13 (Diagram 2, Theory of Change) related to the Immediate Outcome 4 (Follow-up system in place to monitor environmental effects and enforcement)

95. The monitoring of the on-going field trials is being effectively carried out by the concerned Regulatory Agency (Plant Protection and Regulatory Services in collaboration with the CSIR’s Crop Research Institute, see footnote), based on the Regulations of 2007.

96. Trainings on inspection and monitoring have been delivered with the support of the Project, benefiting a total of 65 officers of different institutions, namely 15 officers and 25 Biosafety Inspectors of the Regulatory Agencies, as well as 25 members of Institutional Biosafety Committees. There is, however, little record of these activities in the Biosafety Information System (ANUBIS).

97. The Project has financed the purchase of laboratory equipment for GMOs detection in 2015¹⁷. A draft protocol for GMOs detection has been prepared and a Memorandum of Understanding has eventually been signed in 2017 with the Ghana Standards Authority (GSA), where the laboratory would be established. As a matter of fact, the equipment is still packed at the GSA’s laboratory and the Industrial Research Institute is carrying out the refurbishing of the Lab premises in accordance to GMOs lab standards .and subsequent installation of the equipment in collaboration with GSA.

Outputs from 14 to 17 (Diagram 2, Theory of Change) related to the Immediate Outcome 5 (Functional system for public awareness and participation)

98. The project has supported the implementation of public awareness and information activities, such as the publication of a brochure on Biosafety in Ghana for the general public (2.000 copies), six radio programmes and five television programmes on Biosafety, workshops on Biotechnology and Biosafety issues for pressmen, editors of key-media stations and for lawyers. Some consultancies have been very recently planned and are still in pipeline regarding the preparation of outreach and education material.

99. As mentioned before, clear and exhaustive Guidelines on Public Participation have been prepared since 2004. They are, however, in need of a Public Awareness Plan and defined Entry

decision to withdraw funding, following the dispute emerged with GMOs cotton producers in Burkina Faso (Source: Cornell Alliance for Science website, May 2017)

¹⁷ The equipment is listed in the Project’s Inventory of 2015 (posted in ANUBIS)

Points for public participation in decision-making (foreseen Outputs 14 and 16). The Project has also produced, in 2014, a “Draft National Biosafety Communication Strategy” as prescribed by the Biosafety Act of 2011. The document can be regarded as a preliminary analysis on the issue, but it is not sufficiently consistent and complete for being considered a draft national strategy.

100. The country profile in the global Biosafety Clearing-House (BCH) is unevenly updated. The website of the National Biosafety Authority has also been set up but need to be regularly updated and overall improved. There is also the need to link the national portal to the BCH so that there is a single entry for updating both portals.

101. A valuable Output, not explicitly planned in the Project Document, is the document “Curricula for Biosafety in Ghana” published in 2016. The Curricula represent a thorough base-document for several reasons that are outlined in chapter 6.2 (Lessons Learned). It has here to be particularly emphasised that the Curricula also include specific non-formal education programmes (extension) for the farmers. The Curricula have not been implemented so far.

Final remarks on Outputs delivered

102. Most of the Outputs have been delivered, while few others are in their final stage of achievement (e.g. the new Regulations, the common Memorandum of Understanding between the National Biosafety Authority and the Regulatory Agencies). Outputs have also been delivered regarding Public Awareness and Information, yet all stakeholders agree that this component should be prioritised and enhanced through some planning and methodological tools, the implementation of which has started. The setting of the GMOs laboratory has proved to be difficult due to logistical and institutional problems, yet substantive steps have been done with the acquisition of its equipment, the identification of its location and the signature of an agreement with the hosting institution.

103. Overall, it must be acknowledged that the Project has worked at the best of its capacities within a non-fully conducive political and institutional context, including procurement¹⁸. More so, when considering that some key outputs required relevant institutional changes and a fully conducive political environment, which did not always occur. Despite these limitations, the Project has made a wise and effective use of the existing national capacities and has strongly and incessantly worked to put the Biosafety Framework forward. Everything considered, the overall Outputs achievement has surely to be rated **Satisfactory (S)**.

5.4.2 Achievement of Outcomes

104. The Evaluation has assessed to what extent the actual delivery of the Outputs outlined in previous chapter 5.4.1 has produced, or have the potential to produce, in the short-medium term, the institutional changes and systemic effects (Immediate Outcomes) resulting in a fully operational National Biosafety Framework (Main Outcome). On this basis, this chapter presents a qualitative analysis and interpretation of the Outcomes achieved in the light of the reconstructed Theory of Change (TOC) from Outputs to Outcomes, depicted in Diagram 2.

¹⁸ Several new changes and demands from the National Procurement System caused significant delay in procuring experts to deliver some of the planned interventions.

105. The Immediate Outcome 1 (Biotechnology / Biosafety policy in place with specific action plan) has been satisfactorily achieved. In fact, a Biosafety Policy has been approved by the line-Ministry and two main strategic planning instruments have been prepared. We refer to the National Biodiversity Strategy and Action Plan (NBSAP), which substantively includes Biosafety and the “Draft National Biosafety Authority’s Sector Medium Term Development Plan (2018-2021)”, the latter being conceived to fit in the National Medium-Term Development Policy Framework for the same period. The viability of these Plans will depend, however, on the effective budget allocated for their implementation (see Assumptions in Diagram 3) and regularly financed (see Assumption in Diagram 3 and Financial Sustainability, chapter 5.8.2).

106. The Immediate Outcome 2 (Fully functional and responsive regulatory regime) has been satisfactorily achieved. Actually, main regulatory instruments are in place (Law, old Regulations, some key-guidelines), while others are in their final stage of delivery as discussed in the previous chapter (new Regulations, new Guidelines). All main stakeholders are in place and active (the Authority and its Board, the Technical Advisory Committee and the frontline Regulatory Agencies) and a formal agreement has been signed or being signed by the Authority with all of them. The delayed setting of the new Biosafety Authority (four years after its establishment by the Law) has obviously hampered its full structuration and consolidation, which remain a key-achievement to be pursued as a priority (see Recommendation 2).

107. As for the achievement of Immediate Outcome 3 (Administrative system for handling applications, Risk Assessment and Risk Management) and Immediate Outcome 4 (Follow-up system in place to monitor environmental effects and enforcement), it can also be considered satisfactory, since relevant outputs have been delivered (e.g. capacity building, guidelines, administrative tools) and a substantive experience already exists, as demonstrated by the four on-going Confined Field Trials properly carried-out for years. The GMOs detection capacity of the country remains an area of concern. The reference laboratory has not yet been put in place¹⁹ and also Customs’ inspection capacity needs to be upgraded through the enhancement of the detection and referral system (harbours and land border posts control), particularly when considering that there is a neighbouring country (Burkina Faso) where GMO cotton is cultivated.

108. The achievement of the Immediate Outcome 5 (Functional system for public awareness and participation) looks to be only partially achieved and in need of supplementary efforts, as also corroborated by the low rate of expenditures in this component so far (9,4% of the budget), as shown by Table 3 (chapter 3.6)²⁰. The setting of a proper channel of public information (the Biosafety Authority’s website) is a remarkable output, yet surely with room for improvement. There is an overall concern among all stakeholders regarding this component, since public education and participation are considered crucial factors for a positive and constructive environment regarding Biotechnologies and Biosafety in the country.

109. On this regard, it has to be recalled that the Biosafety Act of 2011 clearly calls the Authority for publishing the Law and the Regulations in “as many languages as possible” and its open discussion through public fora like (we quote the Law) “lectures, seminars and workshops”. Though initiatives in that direction have been developed and are on-going, also at decentralised level, there is room for the enhancement of this component.

¹⁹ Also developers and applicants need to have a dedicated testing laboratory as a regulatory measure

²⁰ This was also due to the support received in this area from other Biosafety partners.

110. The “Curricula for Biosafety in Ghana” is a major Output that can be very instrumental for widening the Biosafety “knowledge community” in the country, both at the Academic and at Rural Extension level, hence representing a major instrument for Public Participation, particularly strengthening the national capacity in decision-making and monitoring at decentralised level (Commercial and Small Farmers), in sensitive areas like Risk Assessment and Risk Management.

Final remarks on Outcomes achievement

111. The Project has played a crucial role by ensuring the continuity and the smooth integration of old and new instruments of the Framework, in a sensitive transition phase. This continuity has been evident through the driving role of the National Executing Agency, as described in chapter 3.4 (Project implementation structure and partners) and the key-role played by UN Environment in mediating and integrating country’s agenda on Biotechnology (including international partners and funding agencies) and country’s obligations pursuant to the Cartagena Protocol on Biosafety.

112. Although affected by different political and institutional shortcomings that have hampered the full enactment of country’s potential and the effective use of its technical assets in Biosafety sector, all the Framework’s systems are in place, yet, as discussed in this chapter, some of them need improvement and consolidation, due to the delayed setting of the National Biosafety Authority.

113. Actually, when considering the strong motivation, engagement and capacity of the national stakeholders, the delayed setting of the new Biosafety Authority has been most regrettable and has hampered the country to take full advantage of the technical, methodological and financial assistance of the Project, also substantiated by the low rate of expenditure so far (see Table 3, Chapter 3.6). To a certain extent, it can be argued that Ghana may have somewhat missed the opportunity to be more advanced in terms of framework implementation and consolidation, than it actually is. This assessment is confirmed by the “Final Tracking Tool”²¹ submitted by the Project and posted in the Biosafety Information System ANUBIS, that shows a final score of 20/32 (it was 15/32 at the beginning of the Project and 17/32 at Mid-Term Review).

114. The above notwithstanding, the evaluation deems that the country has the experience, potential and instruments to appropriately satisfy the existing assumptions (described in chapter 4.4) and to consolidate the main driving stakeholders (the Board of the Authority, the Technical Advisory Committee and the Regulatory Agencies) and driving forces, such as transparency and opportunities for public participation. Everything considered, Outcomes achievement is rated **Satisfactory (S)**.

5.4.3 Likelihood of impact

115. The possible pathway from the Project Outcome to the intended Impact of the Project has been visualised in Diagram 3 (chapter 4.3). As discussed in previous section 5.4.2, the achievement of the main Project Outcome has been so far Satisfactory. However, when assessing the likelihood of progressing towards Impact, not only facts, but also a value judgement, come to play, since the probability of some conditions to materialise has to be considered and valued.

²¹ The Tracking Tool is the GEF instrument used to measure progress in achieving the impacts and outcomes established at the portfolio level. It is completed by the Project Team at the beginning of the Project, at mid-term and at Project completion.

116. Actually, though the National Biosafety Authority (NBA) is well positioned to cope with the increasingly complex challenges, the future capacity has still to be proved and a sound cooperation has to be maintained and enhanced between the Biosafety and Biotechnology sectors (see Drivers in Diagram 3). Moreover, the existence of conducive policies and strategies at national level in different sectors represent a strong Assumption, as also visualised in Diagram 3. These issues will be further discussed in chapter 5.8 (Sustainability).

117. According to its TOR, the Evaluation has to assess the likelihood of the Project to achieve the expected Impact, by using the rating scales of Table 7 and 8 that follow, which basically combines Project Outcome achievement with the progress towards superior levels, the so-called Intermediate States towards Impact (see Diagram 3 in chapter 5.4.2). Based on the analysis presented in the previous chapter (5.4.2), the Evaluation deems that the Outcome Rating can fall under “A”, since the achievement has been considered satisfactory, a further process of improvement is patently on-going, and the allocation of responsibilities is clear.

118. The progress towards Impact has started, since some significant steps have been given, particularly in the area of strategic planning (the Biosafety Plan and the inclusion of Biosafety in the NBSAP), yet, they did not produce so far tangible results. The evaluation deems that the most appropriate rating is “C”, to which a “plus” has to be attributed, by considering the engagement and the capacity of the national stakeholders, eventually rating the progress toward Intermediate States as “C+”. As a result, the aggregate rating is AC+, which, according to following Tables 7 and 8, would indicate that the Project is **Likely to achieve the intended Impact (L)**.

Table 7: Rating scale for outcomes and progress towards ‘intermediate states’

Outcome Rating	Rating on progress toward Intermediate States
D: The project’s intended outcomes were not delivered	D: No measures taken to move towards intermediate states.
C: The project’s intended outcomes were delivered, but were not designed to feed into a continuing process after project funding	C: The measures designed to move towards intermediate states have started, but have not produced results.
B: The project’s intended outcomes were delivered, and were designed to feed into a continuing process, but with no prior allocation of responsibilities after project funding	B: The measures designed to move towards intermediate states have started and have produced results, which give no indication that they can progress towards the intended long-term impact.
A: The project’s intended outcomes were delivered, and were designed to feed into a continuing process, with specific allocation of responsibilities after project funding.	A: The measures designed to move towards intermediate states have started and have produced results, which clearly indicate that they can progress towards the intended long-term impact.

Table 8. ‘Overall likelihood of impact achievement’ on a six-point scale.

Highly Likely	Likely	Moderately Likely	Moderately Unlikely	Unlikely	Highly Unlikely
AA AB BA CA BB+ CB+ DA+ DB+	BB CB DA DB AC+ BC+	AC BC CC+ DC+	CC DC AD+ BD+	AD BD CD+ DD+	CD DD

5.5 Financial management

119. All the dimensions of the financial management have been very satisfactorily addressed by the Project (see table below). Information about actual project costs and co-financing used have been supplied “on the spot” by the Project Administrative Assistant (see financial tables in chapter 3.6) during the country visit.

120. Nevertheless, as a result of the delays in the implementation of the activities, as largely explained in chapter 5.4, the rate of expenditure of the budget allocated has been very low (56% at the time of the country visit, October 2017, see Table 3), i.e. the 61% of the funds already advanced by UN Environment to the Project from 2012 to 2016 (last advancement). The Project has already committed the remaining balance and, even though the Project has formally come to end (July 2017), only a supplementary extension could make possible to conclude some activities in pipeline and to make use of the funds already transferred.

Table 9: Financial Management Table

Financial management components:		Rating ***	Evidence/ Comments
Questions relating to financial management across the life of the project:			
Compliance with financial requirements and procedures of UN Environment and all funding partners (including procurement rules, financial reporting and audit reports etc)		HS	<ul style="list-style-type: none"> - Financial reports have been regularly provided (quarterly) and are filed in ANUBIS platform. - Inventory reports have been prepared in 2013, 2015 and 2016 and are filed in ANUBIS platform. The final inventory has already been prepared and uploaded in ANUBIS. - Audit Reports of 2012, 2013, 2014, 2015 are all filed in ANUBIS and confirm the regularity and compliance of financial management. A final auditing (2017) is planned to be carry out by the end of the year.
Timeliness of project financial reports and audits		S	Financial reports and audits have been presented timely or with reasonable delays.
Quality of project financial reports and audits		S	Up to the standard
Contact/communication between the PM/TM & FMO		HS	Through Periodic Progress Reports, Financial Reports, field visits of the Task Manager and constant communication (email). Participation to the annual meetings of the NPCs, problem-solving through exchange with other Projects' Admin. Assistants
PM/TM & FMO responsiveness to addressing and resolving financial issues		S	
Questions relating to financial information provided during the evaluation:			
Provision of key documents to the evaluator (based on the provision of A-F below)		HS	
A.	An up-to-date 'Co-financing and Project Cost's table	Y	Produced in real time by the Administrative Assistant of the Project during the Evaluation
B.	A summary report on the project's annual financial expenditures during the life of the project.	Y	Produced in real time by the Administrative Assistant of the Project during the Evaluation

Financial management components:		Rating ***	Evidence/ Comments
C.	Financial documents from Mid-Term Evaluation/Review (where appropriate)	na	
D.	All relevant project legal agreements (e.g. SSFA, PCA, ICA) – where appropriate	Y	In ANUBIS and at the Project Office, during the Evaluation
E.	Associated financial reports for legal agreements (where applicable)	na	
F.	Copies of any completed audits	Y	All available in ANUBIS
Demonstrated knowledge by the PM/TM & FMO of partner financial expenditure		HS	
PM/TM & FMO responsiveness to financial requests during the evaluation process		HS	
Overall rating		HS	

*** Ratings given on a 6-point satisfactory scale from 'Highly satisfactory' (HS) to Highly Unsatisfactory.

PM/TM Project Manager/Task Manager

FMO Financial Management Officer

5.6 Efficiency

121. The Project has been implemented in a transitional period coinciding with the establishment of the new Biosafety Authority. The transition has been managed by building upon existing institutions with previous experience in coordinating and executing GEF/Environment Project. In that context, the Biotechnology Nuclear Agriculture Research Institute (BNARI) has played a positive key-role in ensuring Project efficiency at the best of its capacity. The Project has also made large and profitable use of the existing national expertise to deliver its Outputs and Outcomes.

122. As discussed in chapters 3.4, 3.5 and 5.4.1, feasibility and timeliness of many activities have been strongly challenged. It has to be recalled that the Project had been planned, too optimistically in retrospect, with a duration of 36 months. Actually, taking into account the problems and delays in Project's implementation, a request of a substantive no-cost extension of 20 months was submitted and granted, when the new Authority took office in 2015 (plus six months for administrative closure, for a total of 26 months of extension).

123. Delays and no-cost extensions were essentially due to factors beyond Project's control and, overall, Project's managers and stakeholders cannot be considered responsible for that. Well on the contrary, the Project made a judicious use of the resources available and, having been forced to postpone certain activities or even to give up implementing them, it did not make use of the funds received, which, in fact has contributed to the low rate of expenditures (56% as of October 2017), as discussed in previous chapter 5.5. Actually, the attainment of the expected results was satisfactory, and the rate of expenditure could increase substantively if a supplementary 6-month extension is granted. Everything considered, Project's Efficiency is rated **Satisfactory (S)**.

5.7 Monitoring and Reporting

124. The Project Document included (as in all GEF /UN Environment Projects) a costed Monitoring and Evaluation (M&E) Plan (Appendix 7 to the ProDoc), with a budget of 20.000 USD, including a Mid-term Review (actually carried out in 2014, the report of which, however, has not been found in ANUBIS), the Final Evaluation (the current one) and Audits (also regularly carried-out every year, all posted in ANUBIS).

125. The Costed M&E Plan presented some useful elements (baseline situation, mid-term and final targets) that could have actually helped to design and implement a Project Monitoring System to track progress on a more regular basis (for instance quarterly or every six months, in concomitance with the Progress Reports). That was not the case, in Ghana and elsewhere. In fact, usually, Project Teams do not know about the existence of the tool or do not consider it significant. The same applies to another tool "Key Deliverables and Benchmark" (Appendix 6 to the ProDoc), which, in fact, provided some "Outputs" (as visualised in Table 5 of this Report). As already mentioned, instead, the Framework Results (Logframe) only presented Outcomes.

126. The Project Document did not clearly identify and foresee the setting of a comprehensive Monitoring System, except: a) the Mid-term Review carried out by the Task Manager (TM); b) the follow-up and supervision of the TM, which was actually very assiduous, and c) the setting of a stakeholders' Steering Committee that was conceived as, and indeed was, a relevant instrument for the overall, strategic steering of the Project, rather than a Monitoring instrument for Project Management. The annual regional meeting organised by UN Environment Task Manager for the Project Teams in the Africa region has also been recognised by the Teams as a very useful instrument of exchange, mutual learning and joint self-evaluation of projects' progress and problems.

127. The National Project Coordinator made a constant, proximity-monitoring of Project's Activities, through the Annual Workplan, which basically comprised a Calendar of Activities that represented the most used instrument to steer and monitor the Project. This is also a common finding in all the three Projects evaluated (Ghana, Liberia and Nigeria).

128. The Evaluation believes that a structured Monitoring System clearly linking Activities to Outputs, Targets and Progress indicators, and spelling out timing, resources needed (human and financial) and precise responsibilities, would have substantively helped the new Project Coordinator (in place from 2015) to catch up the delays accumulated by the Project until then. It would have helped, in fact, to focus on realistically achievable Outputs, to re-define priorities, to match them with existing budget resources (largely available), eventually progressing in a more focused manner. Adaptive management solutions could have been found, like, as an example, the timely recruiting of supplementary human resources and the delegation of responsibilities.

129. The usual GEF/UN Environment tools for Reporting on Project's Progress have been regularly implemented, transmitted and are all filed in ANUBIS. GEF Tracking Tools (Initial, Mid Term and Final) have also been produced and are filed in ANUBIS.

130. Overall, the Reporting system above did not fully succeed in being an effective Monitoring System (a common situation in the three countries involved in the current Evaluation), for two main inter-related reasons:

- In the evaluator's opinion, the Project Teams look at the Progress Reports as a bureaucratic / administrative requirement for the Information System (ANUBIS), rather than an effective monitoring and steering tool for the efficient and effective implementation of the Project. Admittedly, the format of the Progress Reports does not help the users in considering it as a "living" and useful instrument, too. Usually, the Progress Reports are a "copy and paste", from one semester to another, with just few lines of updating activities (e.g. workshops, training, a new document produced). Feed-backs from UN Environment are also insufficient, just few comments in track-changing mode by the Task Manager that cannot, obviously, cope alone with a bulk of progress reports coming from all over the world, all at the same deadline. No follow-up has been registered also by the Evaluation Office and the Sub-programme coordinator (Environmental Governance) on the annual Project Implementation Reviews (PIR).
- Emphasis is given, at all levels, on Activities rather than Outputs delivery and, even less, on Outcomes achievement. The only reporting instrument that has a valuable approach focussed on Outcomes (and specific to Biosafety Projects) is the so-called "GEF Tracking tool" that is, or should be, prepared at the beginning, at mid-term and at the end of the Project. In the evaluator's opinion, however, and again, the tool is regarded as a sort of "questionnaire" to be completed for the donor, rather than a useful instrument to self-assess and discuss the effectiveness of the Project. For instance, in the case of Ghana Project, the Mid-term Tracking Tools showed a score of 17/32 (it was 15/32 at the beginning), hence supplying a clear indicator of project implementation difficulties. The lack of any reported and meaningful feed-back (at least not found in ANUBIS) both from GEF and UN Environment also reinforces this common "misinterpretation". The problem is complex and probably generated by an insufficient awareness and comprehension of what a "Result-based approach" of a Project is, at all levels, and by a common under-estimation of the relevance of the "basics" of Project Management (including Planning, Monitoring and Evaluation) for appropriately running a Project.

131. From all the above, it seems clear that the effectiveness of Monitoring and Reporting should be assessed against a number of causal and complex problems that could not be addressed and worked out solely by the Project Team, the Task Manager and the Steering Committee. As a matter of fact, the Reporting System was implemented, and the value of the ANUBIS platform has to be objectively emphasised. For instance, most of the information, evidences and facts made available to the Evaluation have only been possible thanks to data posted in ANUBIS. This is a relevant finding that cannot be undervalued.

132. The Evaluation, therefore, believes that the assessment and rating of Monitoring and Reporting has to be regarded as a value judgement not specifically addressing Project's performance, but, rather, the overall Monitoring and Reporting System put in place by the Implementing Agency (UN Environment) and the Global Environment Facility (GEF). As visualised in the Rating Table in Chapter 6.1.1, the rating of the components of the System is uneven, and the overall rating is, everything considered, **Moderately Satisfactory (MS)**.

5.8 Sustainability

133. The evaluation has analysed to what extent follow-up work has been initiated and how project results could be sustained and enhanced over time. Three aspects of sustainability have

been addressed: a) Socio-political sustainability, b) Financial sustainability, c) Institutional sustainability.

5.8.1 Socio-political sustainability

134. Ghana owns a valuable background in Biotechnology and Biosafety, due to its commitment to Biotechnologies since the '90s and its consistent involvement in applying Biosafety rules in laboratory and field trials. Though politicians are generally aware of the key-role that Biotechnology can play for country's development, there is still large room for raising their awareness and information regarding Biosafety, particularly considering the regular succession of Governments and Parliamentarians every four years. That has been, in fact, as previously discussed in this report, one of the major causes of the institutional delays suffered by the Project.

135. The sound cooperation and balance between the Biotechnology and Biosafety sectors has to be maintained and enhanced, particularly in view of more challenging situations like the foreseeable request of permits for the commercial use of GMOs. The question remains controversial in the country and is likely to further radicalize, which makes politicians cautious in decision-making regarding the issue.

136. As emphasised by virtually all the Biosafety key-stakeholders during their interviews, political will is highly influenced by the public opinion and by the search of consensus. That is why all stakeholders look at Public Awareness, Education and Participation as key-elements for the sustainability of the Biosafety Framework. Particularly when coming to the issue of GMOs environmental release for agricultural purposes, the establishment of a real two-way communication with local communities and farmers is considered crucial.

137. While the Board of the Authority is the statutory body where the main national actors have a stake on decision-making (including NGOs, Academic World and Private Sector), Biosafety stakeholders are well aware that other flexible, non-statutory forms of participation and public communication are equally important (e.g. the "fora" foreseen by Law) also at decentralised level (e.g. Local Authorities, Rural Communities, Commercial and Small Farmers), particularly when the environmental release of GMOs will come seriously into the agenda. Everything considered and taking into account the good governance record of the country, Socio-political sustainability is considered **Likely (L)**.

5.8.2 Financial sustainability

138. As discussed in chapter 5.4.1 and 5.4.2, there are remarkable efforts already in place to insert Biosafety agenda in the existing instruments of national strategic planning, which should enable the future funding of the National Biosafety Framework through the national budget.

139. Project stakeholders' opinion, though generally optimistic regarding the future financial sustainability of the National Biosafety Framework, are, nonetheless, well aware that budgetary restrictions and issues of cost-opportunity could limit the financial engagement of the Governments to sustain Biosafety. The National Biosafety Authority has, however, administrative autonomy enabling it to negotiate and access external (international) funding. There is, therefore, the need to establish or consolidate the existing international cooperation (GEF, USAID and other bilateral cooperation, NEPAD, Bill Gates Foundation) through a resource mobilisation strategy (see assumptions in Diagram 3 of the Theory of Change (chapter 4.3). Overall, Financial Sustainability is rated **Likely (L)**.

5.8.3 Institutional sustainability

140. The institutional framework of Biosafety in Ghana is clearly designed in the Biosafety Act of 2011 and the new National Biosafety Authority is operational since 2015. The key-stakeholders are identified (see chapter 3.3) and partnership mechanisms are being steadily implemented. Nevertheless, as described in chapter 5.4.1 (Achievement of Outputs), the National Biosafety Authority is still at an early stage of establishment and strongly in need of consolidation.

141. The institutional sustainability of the Authority will depend not only on the enhancement of the material resources available (still patently insufficient), but also and foremost on the qualitative enhancement of the staff and on the improvement of its organisational and management capacity (see Recommendation 2). Since the stakeholders have for a long time pursued its establishment, there is ground to believe that this consolidation will progressively happen. Everything considered, Institutional Sustainability is considered **Likely (L)**.

6 Conclusions and Recommendations

6.1 Conclusions

142. As described in chapter 3.1 (Context), Ghana has been involved for years in Biotechnology's research and development in different sectors and has, at the same time, addressed country's genuine concerns for the potential risks related to Biotechnology. In that context, the country has created a National Biosafety Committee since the '90s and prepared the National Biosafety Framework through the GEF/UN Environment Project "Development of the Biosafety National Framework," implemented from 2002 to 2004. The Framework included, among others, a draft Biosafety Bill and Biosafety Guidelines. The country has also enacted in 2007 a Regulation on laboratory and confined field trials, on which basis five field trials have been so far authorized (four are still on-going).

143. As envisaged in its National Biosafety Framework, national stakeholders have incessantly promoted the creation of a National Biosafety Authority (foreseen in the Draft Bill of 2004), which was eventually established by the Biosafety Act promulgated in 2011. The new Act has provided Ghana with an essential, comprehensive and clear legal framework dealing with the various aspects related to Biosafety, such as the regulatory and administrative system, including risk assessment and management, the institutional framework, the procedural mechanisms for stakeholders' participation and the need for a national strategy for public information and participation.

144. The implementation of the current Project (2012-2017) has, therefore, coincided with the establishment of the new regulatory regime foreseen in the Biosafety Act of 2011, including the new National Biosafety Authority. For different reasons related to political and institutional changes, but also to the complex intersectoral nature of Biosafety, to the controversial nature of the debate around GMOs, as well as to bureaucratic inertia and logistic problems, the setting of the newly created National Biosafety Authority (NBA) has been largely delayed and only took place in 2015, when the governing Board of the Authority and the Technical Advisory Commission were formed and the Chief Executive Officer was selected and officially nominated (see chapter 5.4.1).

145. As discussed in chapter 3.4, while the Biotechnology and Nuclear Agriculture Research Institute (BNARI), has continued formally acting as the National Executing Agency of the Project

until its completion, those functions have been *de facto* assumed by the new National Biosafety Authority from 2015 onward. While this peculiar institutional arrangement has warranted the starting and sound implementation of the Project, pending the actual setting of the new Authority in 2015, it has, nonetheless, postponed certain activities and the delivery of some key-Outputs, for which a fully empowered institution mandated by law (the new Authority) was needed.

146. That is the case of the National Biotechnology and Biosafety Policy and its Plan of Action, of the Regulations of the Biosafety Act, the full enactment of partnership agreements with the Regulatory Agencies contemplated in the Law and the implementation of an effective plan for Public Awareness and Participation. It is evident, in fact, that all these Outputs, crucial for the implementation of the National Biosafety Framework, could only be delivered under the strategic guidance and coordination of the new National Biosafety Authority. For that reason, a substantive no-cost extension has been granted (20 months) and, as a matter of fact, virtually all the main Outputs and subsequent Outcomes have been eventually satisfactorily achieved (chapters 5.4.1 and 5.4.2).

147. The Authority is, however, still in an incipient phase of structuration and consolidation, both quantitatively and qualitatively, and in strong need of improvement of its organizational and managerial performance. This is a key-issue for the sustainability of the National Biosafety Framework in the immediate future (see chapter 5.8.3).

148. Some relevant steps have been undertaken to sustain the National Biosafety Framework after the end of the Project. Biosafety is well represented in the National Biodiversity Strategy and Action Plan and the new National Biosafety Authority has also prepared its Medium-Term Development Plan 2018-21, to integrate Biosafety in the main national planning instruments. Financial sustainability of the Framework, however, will depend on the effective allocation of sufficient funding to the Authority (chapter 5.8.2).

149. The implementation of a functional system for public awareness and participation remains an area of concern, in need of more decisive and significant steps for enhancing the socio-political sustainability of the Biosafety agenda (see chapter 5.8.1). Biosafety stakeholders are well aware that the new National Biosafety Authority needs to gain wide socio-political acceptance and to find entry-points and mechanisms of public participation enabling a two-way communication with relevant organizations of the Private Sector, the Civil Society and the Public in general. These aspects should be at the top of the agenda for the immediate future.

150. Due to the delays in setting the regulatory and administrative systems (see chapter 5.4.1), the Project, as discussed in chapter 5.5 (Financial Management), has not been able so far to spend more than the 56% of the available funds. The Project has formally come to end in July 2017 (after a six-month extension for administrative closure), but the unspent balance of the advancements received has been already committed and certain activities are in pipeline or have recently started. They could only be implemented if a supplementary extension is granted.

151. The Evaluation has also concluded that the overall Monitoring and Reporting System of UN Environment / GEF Projects shows, as largely discussed in chapter 5.7, some positive elements (the setting and effective use of a regular Reporting system and of the ANUBIS platform, and the constant proximity monitoring by the Project Team, the Project Steering Committee and the UN Environment Task Manager). Nevertheless, relevant weaknesses have also been detected within the whole chain of the GEF / UN Environment Monitoring and Reporting System, resulting in the inadequate use of the Planning, Monitoring and Evaluation tools foreseen in the Project Document,

the lack of a comprehensive and effective Project Monitoring System in place and a low capacity of the Project Team to grasp principles and methods of a “Result-based approach” to the Project, of which the Monitoring system is an essential component. A Recommendation (chapter 6.3) has been formulated on this respect.

152. The Evaluation was required to answer to three key strategic questions, specified in the Terms of Reference of the Evaluation (see Annex 2). When assessing whether the country has a “fully functional and responsive regulatory regime that responds to the obligations under the Cartagena Protocol on Biodiversity” (as asked in the first question), the answer is overall surely positive, as discussed in chapter 5.4.2.

153. On the one hand, in fact, the long experience and large involvement of Ghana in Biotechnology and Biosafety since the ‘90s produced a quite strong baseline situation at the beginning of the Project, both in terms of human and institutional assets. Furthermore, the new institutional framework established through the enactment of the Biosafety Act of 2011 has been a major achievement that has enhanced the capacity of the country to respond to the obligations of the Protocol.

154. On the other hand, however, when considering the overall country’s expectations and capacities in the area of Biotechnology and Biosafety, it can be argued (as discussed in the final remarks on Outcomes achievement, chapter 5.4.2), that, due to delayed setting of the new Authority, Ghana has somewhat missed the opportunity to be more advanced in terms of framework implementation and consolidation, than it actually is.

155. By the same token, the development of “institutional and technical capacity, awareness and participation amongst the key actors” (as asked in the second question) has been surely enhanced by the Project, particularly through the constant and effective participation of the main national stakeholders. Valuable technical and institutional assets are steadily in place and they are the main guarantee for the enhancement and consolidation of the newly created Biosafety Authority, whose setting has been strongly pursued by all of them for years.

156. Relatively to the third question, concerning the “consolidation of a functional national system that can monitor Biotechnology and follow up the release of Living Modified Organisms (LMOs) and their possible effects on the environment”, it can be concluded that a functional system exists and is being improved through the new regulations under final approval and specific guidelines that are under current discussion among the stakeholders. A key-issue will be the implementation of flexible and effective modalities of public participation, also at decentralized level in the rural areas, as discussed in chapter 5.8.1 (Socio-political sustainability). This is indeed a relevant question for Ghana, since the deliberate release of Genetically Modified Organisms is in the national agenda and, as expected, object of controversy.

6.1.1 Evaluation Criteria and Rating Table

157. The following Table provides the summarized rating of the different criteria established by UN Environment Evaluation Office (EO) that have been assessed all along the Report. The overall assessment of the criteria gives an average score of Satisfactory.

Table 10: Evaluation Criteria and Ratings Table

Criterion (section ratings A-I are formed by aggregating the ratings of their respective sub-categories, unless otherwise marked)	Summary Assessment	Rating
A. Strategic Relevance	Very satisfactory in all aspects.	HS
1. Alignment to MTS and POW	Well aligned with Pow 2010-11, Sub-Programme Environmental Governance, Expected Accomplishment (EA) B.	HS
2. Alignment to UNEP/GEF/Donor strategic priorities	Project belongs to GEF Biodiversity Focal Area, Strategic Programme 6 (BD-SP6): "Building Capacity for the Implementation of the Cartagena Protocol on Biosafety".	HS
3. Relevance to regional, sub-regional and national environmental priorities	Relevant for the management and safe use of GMOs in the context of Sustainable Development at national and West-Africa level	HS
4. Complementarity with existing interventions	Builds upon GEF/UN Environment Project "Development of the National Biosafety Framework" (2002-2004). Biosafety well included in the NBSAP.	HS
B. Quality of Project Design	Project Design Quality assessed in Inception Report and found weakly developed in some relevant aspects, like Project Preparation, Intended Results and Causality, Logical Framework and Monitoring.	MU
C. Nature of External Context	Overall Favourable, not being affected by unusually challenging operational environment, like natural disaster or conflicts.	Favourable
D. Effectiveness²²		S
1. Achievement of outputs	Main Expected Outputs delivered, despite limiting external conditions that hampered Project's performance.	S
2. Achievement of direct outcomes	Most Immediate Outcomes satisfactorily achieved, some of them in need of consolidation.	S
3. Likelihood of impact	The process of Outcomes consolidation is on-going with clear allocation of responsibilities and steps given towards impact	L
E. Financial Management		HS
1. Completeness of project financial information	Financial information available and administrative requirements fulfilled	HS
2. Communication between finance and project management staff	In place throughout project life	HS
3. Compliance with UNEP standards and procedures	Inventory reports regularly prepared and yearly audits submitted	HS
F. Efficiency	In a transitional phase, the National Executing Agency and national stakeholders have played a key-role in positively ensuring Project efficiency at the best of their capacity. Feasibility and timeliness of the activities have been strongly challenged by factors beyond the control of the Project.	S
G. Monitoring and Reporting		MS
1. Monitoring design and budgeting	The Monitoring Plan is quite complete, and the Project had an allocation for Monitoring and Evaluation (M&E).	S
2. Monitoring of project implementation	A comprehensive and structured Monitoring System was not effectively put in place, though Monitoring activities were carried out by the TM, the Steering Committee and the Project Coordinator	MU
3. Project reporting	GEF/UN Environment tools for Monitoring Progress Reports have been implemented, transmitted and filed in ANUBIS, along with a number of technical documents and other information regarding Project implementation. The quality and usefulness of the Reporting System stays, however, well behind its potential.	MS
H. Sustainability (the overall rating for		L

²² Where a project is rated, through the assessment of Project Design Quality template during the evaluation inception stage, as facing either an Unfavourable or Highly Unfavourable external operating context, the overall rating for Effectiveness may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together.

Criterion (section ratings A-I are formed by aggregating the ratings of their respective sub-categories, unless otherwise marked)	Summary Assessment	Rating
<i>Sustainability will be the lowest rating among the three sub-categories)</i>		
1. Socio-political sustainability	Efforts on-going to gain wider public acceptance and stakeholders' inclusion, as also foreseen by the national Biosafety Act.	L
2. Financial sustainability	Substantive steps have been given to mainstream Biosafety within the national strategic planning and funding	L
3. Institutional sustainability	Roles and responsibilities very clearly assigned to the National Biosafety Authority and the partnership with Regulatory Agencies are being structured through MoUs. NBA strongly needs consolidation and new partnerships have to be built.	L
I. Factors Affecting Performance		S
1. Preparation and readiness	Despite some relevant weaknesses in the Project Design, the Project built coherently upon the previous Project "Development of the Nat. Biosafety Framework".	S
2. Quality of project management and supervision	Procedures of management were up to the standards, despite the delicate phase of transition. Relevant role of UNEP in warranting continuity in the transition phase following the setting of the new National Biosafety Authority.	HS
3. Stakeholders participation and cooperation	Pivotal role of the National Executing Agency and of the new National Biosafety Authority. Smooth coordination among them. Good involvement of other Regulatory Agencies.	HS
4. Responsiveness to human rights and gender equity	Not explicitly implemented, not referred to in any Project document / report produced by the Project. No disaggregated data by gender on participants in project's activities (e.g. training)	MU
5. Country ownership and driven-ness	Grounded on the National Law of 2011 and demonstrated by the setting of the new Biosafety Authority. Delays in political decision-making.	S
6. Communication and public awareness	Still to be clearly set-up and consolidated	MS
Overall project rating		S

6.2 Lessons Learned

Lesson 1. – *The "Curricula for Biosafety in Ghana" represent an interesting example and has the potential to be adapted and adopted by other comparable countries of the Region and elsewhere for the following reasons:*

- *It links national academic institutions with external entities such as UN Environment, Michigan State University (MSU) and the International Centre for Genetic Engineering and Biotechnology (ICGEB);*
- *It identifies institutions and potential faculty for training;*
- *It determines the academic qualification levels for training, i.e., Certificate, Diploma or Degree;*
- *It identifies other issues that may promote biosafety curricula exercises in Ghana (e.g. through Agricultural Extension programmes).*

Lesson 2. *It is important that the Project Document and the Logical Framework define a clear logical pathway linking Activities-Outputs-Outcome. Weaknesses in the pathway have particularly affected the achievement of Immediate Outcome 5, regarding the component “Public Awareness and Participation”. The definition, in the Project Logframe, of clear and measurable Outputs, specific to different target groups (e.g. Politicians, Government, Lawyers, Media, Consumers, Farmers, Environmental groups, the Youth, etc.), would have helped the Project Team in focussing its activities and being more effective in that component.*

6.3 Recommendations

158. Based on the main Findings and Conclusions, the main evaluation mission’s recommendations are the following:

Recommendation 1: to UN Environment (regarding the use of the unspent balance already transferred to the Project)

Recommendation 1:

The Evaluation recommends a six-month extension in order to implement or complete on-going / in pipeline activities for which available funds (unspent balance in the Project’s account) have already been committed, namely:

- 14 national consultancies in different and relevant areas
- Final Auditing
- Awareness and training activities
- Procurement of NBA Office Equipment
- Participation of the Project team to the annual Meeting of NPC organised by UN Environment

Summary of Findings and Conclusions supporting the Recommendation

The Project has come to end (July 2017) and has spent so far 56% of the allocated funds, i.e. the 61% of the funds already transferred (ref. Chapter 5.5 § 120, Conclusions § 150). All foreseen activities are cleared by the Task Manager based on reviews and discussions with the Partner.

Recommendation 2: to NBA and UN Environment (regarding the structuration and consolidation of the National Biosafety Authority)

Recommendation 2:

The Evaluation strongly recommends speeding up the structuration and consolidation of the National Biosafety Authority in place since 2015 and more specifically, within 6 months:

- The urgent recruitment of at least the Technical Director and of the Director of the Finance and Administration Office
- The establishment of clear Terms of Reference and Workplan for the technical and administrative staff already in place (seconded staff)
- The completion of the IT equipment of the Office (computers, telephone, internet connection, etc.)

Summary of Findings and Conclusions supporting the Recommendation

The NBA is still at an early stage of structuration and consolidation (ref. Findings § 89, 90, 106,

Conclusions § 144 and 147).

Recommendation 3: to NBA and UN Environment (regarding the full operationalisation of the National Biosafety Framework)

Recommendation 3:

The Evaluation recommends giving priority and follow-up to the implementation of some key-components of the NBF, namely, within the next six months:

- The approval of the new Regulations of the Biosafety Act;
- The finalisation of the Guidelines for the Environmental Release and Commercial Use of the GMOs;
- The full enactment of the common Memorandum of Understanding with all seven Regulatory Agencies;
- The participatory elaboration of a Public Awareness and Participation Plan with clearly identified Entry Points for public participation in decision-making.

Summary of Findings and Conclusions supporting the Recommendation

The Nat. Biosafety Framework is still in need of relevant instruments for its full implementation, particularly the approval of the Regulations of the Law (ref. Findings § 86 and 87, Conclusions § 146), the guidelines regarding the Environmental Release and Commercial use of GMOs (ref. Findings, § 88), the full enactment of the common MoU with the Regulatory Agencies (five signatures out of seven, so far, ref. Finding § 91, Conclusions § 146) and the elaboration of the Public Awareness and Participation Plan with clearly identified Entry Points for public participation in decision-making (ref. Findings § 99, Sustainability § 136, 137, Conclusions § 143 and 149).

Recommendation 4: to NBA and UN Environment (regarding the implementation of the GMOs Laboratory)

Recommendation 4:

The Evaluation recommends giving effective steps for the implementation of the GMOs laboratory, by concluding in the next six months at least:

- The urgent integration of the full list of the equipment in custody at the Ghana Standards Authority (GSA) into the MoU with the GSA;
- The elaboration of a project with budget for the necessary upgrading of the space where the lab will be installed (within the GSA laboratory premises), according to international standards for GMOs Laboratories;
- The identification of the minimum staff for the Lab and of the modalities of their recruitment and training.

Summary of Findings and Conclusions supporting the Recommendation

The Project has acquired since 2015 a first set of equipment and materials for the setting of the first GMOs Lab in the country. An MoU has been signed (2017) with the Ghana Standards Authority to install the Lab within the premises of GSA laboratory (ref. Findings § 97).

Recommendation 5: to GEF and UN Environment, particularly UN Environment Evaluation Office (EO) (regarding the implementation of the Monitoring and Reporting System in all Projects)

Recommendation 5:

The Evaluation recommends giving effective steps for the revision and improvement of the whole Monitoring and Reporting System of the Projects, particularly addressing:

- Awareness raising and capacity building of Projects' Teams on the relevance and implementation of effective Project Monitoring and Reporting Systems, based on a sound "Project Management by Results";
- Putting in value, review and improve the existing Monitoring and Reporting tools (particularly the "Costed M&E Plan", the "GEF Tracking Tools" and the "Project Implementation Review" / PIR), as living instruments for the setting of appropriate Project Monitoring Systems at Project level.

Summary of Findings and Conclusions supporting the Recommendation

Relevant weaknesses have been detected within the whole chain of the GEF / UN Environment Monitoring and Reporting System, resulting in the inadequate use of the Planning, Monitoring and Evaluation tools foreseen in the Project Document, the lack of a comprehensive and effective Project Monitoring System in place and a low capacity of the Project Team to grasp principles and methods of a "Result-based approach" to the Project. (ref. whole Chapter 5.7, Conclusion § 151, Lessons Learned 2)

Annexes

1. Response to stakeholder comments received but not (fully) accepted by the evaluators
2. Evaluation ToR (without annexes)
3. List of people met
4. Summary co-finance information and a statement of project expenditure by activity
5. Evaluation Bulletin
6. Comparative analysis of Ghana, Liberia and Nigeria Projects of National Biosafety Framework Implementation
7. List of documents consulted
8. Brief CV of the consultant
9. Quality assessment of the evaluation report

Annex 1: Response to Stakeholder Comments Received but not (Fully) Accepted by the Evaluator

Stakeholder comments	Evaluator response
From Task Manager / TM UN Environment	
Chapter 3.3 – Stakeholders	
Comments on § 29 and § 30	TM comments present interesting and detailed information on the issue, also from an “historic” viewpoint, yet, not much appropriate to fit in the synthetic stakeholders’ analysis required for the chapter.
Chapter 3.6 – Project Financing	
Comment on Table 3	The comment has been used to complement § 108 (footnote n. 20)
Chapter 4.1 (The reconstructed TOC of the Project: overview)	
Comments on § 35: TM Comments: <i>“This is not a flaw, because that was and continue to be the guidance. The GEF projects logframe is to outcome level... This is factually not correct, since the Evaluation is doing triangulation, we cannot say there is no appendix or document which captures expected outputs or even activities... Though it may not be called Theory of Change, the intervention strategy (GEF alternative) actually captures same. It may have come up in UNEP later but these designs had captured these issues..”</i>	Paragraph 35 looks sufficiently clear regarding guidance and requirements at the time of Project Formulation. ProDoc strong and weak points, including appendixes, are largely discussed in chapter 5.2 (Project Design) and, to a certain extent, in chapter 5.7 (Monitoring and Reporting) and in chapter 6.2 (Lessons Learned). Mention to chapter 5.2 has been integrated in § 35, for easy reference.
Chapter 4.3 (The pathway from Outcome to Impact)	
TM Comment on § 52: <i>“The two (i.e. Biotechnology and Biosafety sectors) have different focus so it is not always likely there will be “symmetry”. Biosafety is a regulatory obligation to an innovation process (Biotechnology), and does not necessary fit into a negotiated process and the role and focus of the two are different”</i>	§ 52 is part of chapter 4.3, which is exploring possible Pathways to Impact, including also Diagram 3. The evaluator used the word “asymmetry” to point out possible unbalances of power and different negotiation capacity between Biosafety stakeholders and Biotechnology actors. TM comment seems reinforcing this point: since Biosafety and Biotechnology have different objectives and approaches on the same issue (e.g. the commercial use of GMOs, but not only), a “negotiation” process (though not always explicit) does exist, particularly when making a decision on GMOs applications. While Biotech sector is focussed on the use of Biotechnology for different purposes (including economic profit), Biosafety is based on the Precautionary Principle and aims at safeguarding Biodiversity and Human Health.
Chapter 5.4.1 (Delivery of Outputs)	
TM comment on § 87:	

<p><i>"This argument is flawed whilst regulations can help in delivery, the law as it standards can still be used for all levels of Biosafety related releases, in addition to the fact the NBA as per article 40 can at anytime release operational guidelines to support its work. With the way the law was designed, any intervention can be handled on a case by case basis"</i></p>	<p>§ 87 just explains the rationale for the approval of new Biosafety Regulations (prepared with the support of the Project). It is an undeniable fact that existing regulations were prepared well before the law (2007), were not conceived for the commercial use of GMOs and that national stakeholders have been, and still are, struggling for the approval of new Regulations.</p>
<p>Chapter 3.9 (Evaluation criteria and Rating Table)</p>	
<p>TM comment on Project Design score (MU) in Table 10: <i>"With the guidance and strategies in place, and guided by the sentiments raised, this rating should be MS. Sometimes projects are been rated on issues and measures that are not fully supported by the guidance received at the time of design."</i></p>	<p>The Evaluator understands that the Design Assessment (PDQ) is a tool conceived by the Evaluation Office to help scrutinize the quality of the project design, and, by pointing out the flaws and strengths, to provide feedback on areas for improvement / enhancement in future project planning (lessons learning and organisational improvement). Project Design rating (MU) seems coherent to the analysis provided in chapter 5.2 (Project Design).</p>
<p>Chapter 6.3 (Recommendations)</p>	
<p>TM comment on Rec. 2, 3 and 4: <i>"Whilst these recommendations are extremely important in helping to consolidate a long term positioning of the NBA. This is not a function of UN Environment. I do not therefore accept this recommendation as we cannot control a national process which is a sovereign responsibility. I request UN Environment to be removed from this Recommendation, as we do not have any mechanism of doing that unless there is a follow up activity or request for guidance"</i></p>	<p>The Evaluator does see the point and would agree on that. In fact, Rec. 2, 3 and 4 are essentially addressed to the National Biosafety Authority (they have been extended to UN Environment, as Implementing Agency, in the sequence of Rec. 1, which is recommending a 6-month extension to implement the subsequent Recommendations).</p>

Annex 2: Terms of Reference for the Evaluation

TERMS OF REFERENCE

Terminal Evaluation of the UN Environment/Global Environment Facility projects:

A: "Implementation of National Biosafety Framework for Nigeria"

B: "Implementation of National Biosafety Framework for Ghana"

C: "Implementation of National Biosafety Framework for Liberia"

Section 1: PROJECT BACKGROUND AND OVERVIEW

Project General Information

Table 1. Project summary for (A) Nigeria, (B) Ghana and (C) Liberia

Sub-programme:	Environmental Governance	Expected Accomplishment(s)/ Programme of Work Output(s):	Pow Accomplishment: b) The four outputs under this expected accomplishment relate to the provision of legal and technical support to Governments to develop and enforce laws and strengthen institutions to achieve internationally agreed environment
UN Environment approval date:	A: January 2010 B: May 2012 C: May 2011		
GEF project ID:	A: 3655 B: 3045 C: 3040	Project type:	Medium Size Project
GEF OP #:		Focal Area(s):	Biodiversity
GEF approval date:	A: March 2011 B: February 2012 C: February 2011	GEF Strategic Priority/Objective:	Strategic Programme 6: Biosafety (SO3/SP6)
Expected start date:	A: April 2011 B: May 2011 C: June 2011	Actual start date:	A: June 2011 B: May 2012 C: August 2011
Planned completion date:	A: June 2015 B: October 2013 C: May 2015	Actual completion date:	A: August 2017 B: July 2017 C: June 2017
Planned project budget at approval:	A: \$2,011,000 B: \$1,436,364 C: \$ 1,107,679	Actual total expenditures reported as of March 2017:	A: \$1,590,608.61 B: \$679,446.47 C: \$830,485.91
GEF Allocation:	A: \$965,000 B: \$636,364 C: \$577,679	GEF grant expenditures reported as of March 2017:	A: \$842,198.61 B: \$297,008.67 C: \$511,348.66
Expected Medium-Size Project co-financing:	A: \$1,046,000 B: \$800,000 C: \$530,000	Secured Medium-Size Project/Full-Size Project co-financing:	A: \$1,046,000 B: \$800,000 C: \$530,000
First disbursement:	A: June 2011 B: May 2012 C: August 2011	Date of financial closure:	Not closed
No. of revisions:	A: 7	Date of last revision:	A: January 2017

	B: 7 C: 7		B: January 2017 C: January 2016
No. of Steering Committee meetings:	A: 7 B: 6 C: 10	Date of last/next Steering Committee meeting:	A: July 2016 B: June 2016 C: February 2015
Mid-term Review/ Evaluation (planned date):	A: June 2012 B: November 2013 C: August 2013	Mid-term Review/ Evaluation (actual date):	A: November 2013 B: August 2014 C: August 2014
Terminal Evaluation (planned date):	May 2017	Terminal Evaluation (actual date):	May 2017
Coverage (Countries):	Nigeria / Ghana / Liberia	Coverage - Region(s):	Western Africa

Project rationale

17. **Nigeria:** Nigeria as a nation is highly endowed with enormous biodiversity which requires conservation and sustainable utilization of these natural resources. With the advent of modern Biotechnology, Living Modified Organisms (LMOs) and their products have received a lot of international attention as well as their perceived adverse impacts on the environment and on human health. Nigeria joined the confederation of nations in taking precautionary safety measures by signing the Cartagena Protocol on Biosafety (CPB) in 2000 and ratified in 2003. Nigeria has also developed a National Biosafety Frame and is currently developing its Biosafety Clearing House. Genetically engineered/modified (GE/GM) crops in agriculture are increasingly becoming available on the market, especially in agricultural development. To apply GM technology to solve such problems requires capacity building in the field of risk assessment and risk management, detection of LMOs as well as socio-economic and ethical aspects associated with adoption of the GM technology. It is therefore, important to strengthen the national capacity in all subjects related to safe application of modern biotechnology. It is very crucial now for the country to collaborate with development partners to build a functional National Biosafety Framework that would facilitate the safe application of modern biotechnology in the country and the implementation of the Cartagena Protocol on Biosafety.

18. **Ghana:** Ghana developed its National Biosafety Framework in 2004 which addresses a biosafety policy, regulatory regime, systems for handling, monitoring and enforcement and public participation with related institutional arrangements. Biotechnology in Ghana has been highlighted as one of the strategic tools to modernize agriculture, assist in increased agricultural productivity, increased agro-processing and industrial delivery. Nevertheless, some gaps and weak points still exist in the national biosafety system and, taking into account the rapid developments in modern biotechnology, new requirements resulting from development at global and regional levels are to be implemented and reflected at national level as required by treaty and constitutional obligations. The project stands to help Ghana develop capacity to gain information and technical capacity in risk assessment among others as tools to ensuring environmental and food safety especially of LMOs in field trials and as food for feed and/or for processing. In the absence of the project, the competent authorities would be lacking the necessary capacities, both technical and material, and the necessary information sources to cover sufficiently all aspects and new developments connected with the environmental safe management of modern biotechnology.

19. **Liberia:** Liberia is endowed with rich biological diversity as well as other natural resources; its flora and fauna include plethora of plant and animal species of which a total of 110 are endemic (103 plants and 7 animals species) and of high conservation significance. Unfortunately, there is a steady decline in the country's biological diversity owing to a number of anthropogenic factors, a few of which include: unregulated logging, shifting cultivation, monoculture plantations, charcoal production, poaching and hunting, as well as the abandonment of crop landraces in favour of exotic crop varieties that have been introduced into the country for relief purposes. This latter threat is of particular significance to biosafety because it could lead to loss of valuable genes. Cognizant of the threats to the environment and particularly biodiversity, Liberia acceded to Cartagena Protocol on 15 February 2002 and completed its National Biosafety Framework (NBF) in 2004. However, there are serious capacity needs in terms of skilled human

resources and adequate infrastructure. The project is therefore vital to address the capacity building needs of Liberia with respect to the final target of a fully operational NBF, and thus enable Liberia to integrate biosafety into its sustainable management plan for biodiversity and to meet its obligation as a Party to the Cartagena Protocol on Biosafety. Additionally, a functional biosafety system will also safeguard against genetic erosion of the country's valuable crop landraces that are being used as the genetic reservoir for crop improvement, e.g. local rice varieties in breeding programs both regionally and globally to ensure food security.

Project objectives and components

20. These projects are part of the GEF's wider efforts in assisting countries to implement a biosafety regulatory regime in accordance with Agenda 21 and CBD. The global project will assist Parties to the Protocol to meet their obligations by building or strengthening the capacity needed to have an operative NBF in their respective countries including Biosafety Clearing House and enabling activities such as training in risk assessment and risk management of GMOs. This will be done in collaboration with other relevant government sectors, NGOs, private sector, academic and research institutions and CBOs.

21. **Nigeria:** The goal of this Project is to facilitate compliance with and the implementation of the Cartagena Protocol through the establishment of a National biosafety system. Specifically, its main objective is **to assist Nigeria to put in place a well-articulated, effective and transparent national biosafety system through the development of the necessary policies, regulatory and technical instruments, and local capabilities in order to meet national development needs.**

22. The project components and expected results for Nigeria are as summarised in the table below:

Table 2. Projects components and outcomes – Nigeria

Project component	Expected Outcomes
Baseline established for information on the safe use of biotechnology in Nigeria through a stocktaking analysis.	- Gaps and areas of intervention in the National Biosafety Framework identified to facilitate final project design
System for handling LMO issues	- A fully functional national systems for handling requests with fully functional risk assessment and risk management system
Establishment of a regulatory regime consistent with CPB and national obligations	- A fully functional and responsive regulatory regime in line with CPB and national needs
Strengthening systems for monitoring and enforcement Strengthening systems for monitoring and enforcement	- Full Systems for monitoring of environmental effects and enforcement are in place.
System for public education, awareness and participation	- A plan for public education, awareness and participation and access to information is formulated and implemented

23. **Ghana:** The overall goal of the project is to assist Ghana to put in place a functional, transparent and robust national biosafety framework, in accordance with national development priorities, and to fulfil its obligations as a Party to the Cartagena Protocol, Agenda 21 and other related international instruments. The objective of the project is to **“strengthen and evolve the institutional and human capacity needed to meet the critical challenges in the operationalisation of the NBF and the obligations under the Cartagena Protocol on Biosafety”**. The specific objectives include the following:

- To integrate and incorporate Biosafety issues into the National Development Planning agenda as spelt out in the Ghana Poverty Reduction Strategy, the National Biodiversity Strategy, the National Science, Technology and Innovation Policy and related sectoral policies on sustainable and environmental safe use of Biological Diversity and the proposed Biotechnology and Biosafety Policy.

- To review, consolidate and establish a fully functional and responsive regulatory regime, in line with the Cartagena Protocol on Biosafety (CPB), as well as its national needs and priorities.
- To establish and consolidate a transparent, functional and predictable process related to administration of requests including risk assessment and decision-making in the management of modern biotechnology activities.
- To establish and operationalise a coordinated and collaborative monitoring and enforcement system with delegated responsibilities as spelt out in the National Biosafety Framework and the Biosafety Bill.
- To establish and consolidate a functional national system for public awareness, education, participation, and access to information.

24. The project components and expected results for Ghana are as summarised in the table below:

Table 3. Projects components and outcomes – Ghana

Project component	Expected Outcomes
Stocktaking and Biosafety Policy Integration	<ul style="list-style-type: none"> - Stocking document used as a baseline for the design of the implementation project. - By 2011, Biosafety is integrated and incorporated into the biotechnology and biosafety policy with specific action plans and related sustainable development plans
Strengthening the Biosafety Regulatory and Administrative System	<ul style="list-style-type: none"> - Ghana has a fully functional and responsive regulatory and administrative system with implementation regulations/guidelines/operational procedures in line with CP and other relevant international agreements and national needs in relation to the management of modern biotechnology
Monitoring and Enforcement	<ul style="list-style-type: none"> - Ghana has a functional national system for “follow-up” activities, namely monitoring of environmental effects and enforcement
Public Awareness and Participation	<ul style="list-style-type: none"> - Ghana has a functional national system for public awareness, education, participation, access to information

25. **Liberia:** The overall goal of the project is **to assist Liberia to have a workable and transparent NBF in line with its national development priorities and international obligations relative to Agenda 21, the CBD, and the Cartagena Protocol on Biosafety.** Specifically, the Project aims to assist Liberia to put in place a well-articulated and effective national biosafety system through the development of necessary policy, regulatory and technical tools as well as capacity building interventions. Its specific objectives are:

- To integrate and incorporate Biosafety into the national sustainable development plan and/or strategies of Liberia.
- To assist in the establishment and consolidation of a fully functional and responsive regulatory regime in line with Cartagena Protocol and also Liberia’s needs and priorities.
- To assist Liberia to establish and consolidate a functional national system for handling requests, perform risk assessment, make decisions on requests, and perform administrative tasks.
- To assist in the establishment and consolidation of a functional system for “follow-up”, namely monitoring of environmental effects and enforcement in Liberia.
- To establish and consolidate a functional national system for public awareness, education, participation and access to information.

26. The project components and expected results for Liberia are as summarised in the table below:

Table 4. Projects components and outcomes – Liberia

Project component	Outcomes
Development of a comprehensive national biosafety	<ul style="list-style-type: none"> - Biosafety recognized and Mainstreamed as a sustainable

policy	development issue in the national development
Strengthening the administrative and regulatory framework on biosafety	- A functional regulatory and administrative system for biosafety established in line with obligations to the Cartagena Protocol on Biosafety
Creating the necessary institutional capacity and human resources for effective decision making and compliance in biosafety	- A functional national system for monitoring and enforcement established
Generating and managing biosafety information and public sensitization strategies	- A functional national system for public awareness, education and Public participation established

Executing Arrangements

27. The GEF **Implementing Agency** for the three projects was UN Environment acting as intermediary between the GEF and the executing agencies in both countries. In this capacity, UN Environment had overall responsibility for the implementation of the projects, project oversight, technical support and co-ordination with other GEF projects.

In **Nigeria**, the **National Executing Agency** (NEA) was the Federal Ministry of Environment - which is also the CPB National Focal point. This was later changed to the National Biosafety Management Agency established by the Biosafety Act (2015) which transferred the focal Point and all administrative matters on Biosafety.²³ The NEA was responsible for the sustainability of national biosafety activities on completion of the national project, and providing the necessary scientific, technical, financial and administrative support to the work of the **National Coordinating Committee** (NCC)²⁴, working in close co-operation with relevant government agencies, the scientific community, the public and private sectors. The NCC provided policy oversight to the execution of the national project and cross sectoral inputs, and it gave recommendations to facilitate the mainstreaming of biosafety activities in the national sustainable development agenda. A **National Project Coordinator** (NPC) appointed by the NEA coordinated the execution of the national project, and was the liaison officer for relevant stakeholders. The NPC was assisted by technical, administrative and financial support staff in the project.

28. In **Ghana**, the **National Executing Agency** was the Ministry of Environment, Science and Technology (MEST), also designated as the National Competent Authority by the Government of Ghana under the NBF, whose functions were executed through the Biotechnology and Nuclear Agriculture Research Institute (BNARI) of the Ghana Atomic Energy Commission, an agency under MEST. . BNARI²⁵ worked on behalf of the Government of Ghana to manage the project and ensure that its objectives are met by the end of the project. MEST through its technical agencies provided the necessary scientific, technical, financial and administrative support to the project, working in close co-operation with the relevant government agencies, the scientific community and the public and private sectors. The **National Biosafety Committee, with** representation from universities, research institutes, regulatory institutions, private sector and civil society, as well as various line Ministries and agencies, provided advice and guidance for the implementation of the National Biosafety Framework. A **National Project Coordinator** appointed by NEA, with assistance from a full-time project administrative/financial assistant, was responsible for the overall co-ordination, management and supervision of all aspects of the national project.

29. In **Liberia**, the Environmental Protection of Liberia (EPA) was the **National Executing Agency** of the project, working in close collaboration with relevant agencies and ministries of government, as well as other

²³ Change of NEA in Nigeria was communicated to UNEP per later dated 22/03/2016 which was uploaded in ANUBIS under "other documents"

²⁴ In Liberia and Ghana, the NCC functions were absorbed into the functions of the already established statutory bodies – the National Biosafety Committee. The National Biosafety Committee is envisaged to evolve into the Technical Advisory Committee under the Biosafety Act in Ghana.

²⁵ With the passage of the National Biosafety Act of Ghana, a National Biosafety Authority (NBA) has been established and is currently the National Focal Point and also Competent Authority on Biosafety. However, it was agreed that BNARI will still host the Project Secretariat and closely work with the NBA till end of the current project.

stakeholders who participated in the NBF. The NEA used a multi-disciplinary and multi-sectoral **National Biosafety Committee** to advise and guide the implementation of the National Biosafety Framework. The NBC therefore functioned as the **project's steering committee**. The NEA may also establish **sub-working groups**. A **National Project Coordinator** appointed by NEA, with assistance from a full-time project administrative/financial assistant, was responsible for the overall co-ordination, management and supervision of all aspects of the national project. The NPC provided overall supervision for any staff in the NBF Team as well as guiding and supervising all other staff appointed for the execution of the various national project components.

Project Cost and Financing

30. The three projects fall into the medium-size project (MSP) category. In **Nigeria** the overall project budget was US\$ 2,011,000 comprising of a GEF allocation of US\$ 965,000 and US\$ 1,046,000 in-kind co-financing support from the Government of Nigeria. For **Ghana**, the overall project budget was US\$ 1,436,364 of which US\$ 636,364 was received from the GEF financing whereas US\$ 800,000 was to be provided through co-financing. As for the project in **Liberia**, the overall budget was US\$ 1,107,679 comprising US\$ 577,679 from GEF and US\$530,000 from co-financing from the Government of Liberia.

Table 5. Estimated project cost in Nigeria (USD)

Financing source	Amount (USD)
GEF Trust Fund	965,000
Co-financing (National counterpart funding)	1,046,000
Total	2,011,000

Table 6. Estimated project cost in Nigeria (USD)

Financing source	Amount (USD)
GEF Trust Fund	636,364
Co-financing (National counterpart funding)	800,000
Total	1,436,364

Table 7. Estimated project cost in Nigeria (USD)

Financing source	Amount (USD)
GEF Trust Fund	577,679
Co-financing (National counterpart funding)	530,000
Total	1,107,679

Implementation Issues

31. The UNEP-GEF Biosafety Unit supports several projects funded through the GEF that enable countries to fulfill their obligations as parties to the Cartagena Protocol on Biosafety (CPB) or enable countries to become Parties to the CPB. The specific project interventions include development and implementation of biosafety frameworks at national and regional levels. In addition to achieving the evaluation objectives described in section 2 below, the evaluation should endeavour to capture a comparative analysis of the three countries - Nigeria, Ghana and Liberia, as they are from the same sub region and there is a potential for the harmonization of their national biosafety systems, as most of the regulatory systems in these three countries are similar and there is a lot of trade between them.

Section 2. OBJECTIVE AND SCOPE OF THE EVALUATION

Key Evaluation principles

32. 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.

33. **The “Why?” Question.** As this is a terminal evaluation and similar interventions are envisaged for the future, particular attention should be given to learning from the experience. Therefore, the “Why?” question should be at the front of the consultant’s mind all through the evaluation exercise and is supported by the use of a theory of change approach. This means that the consultant 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.

34. **Baselines and counterfactuals.** In attempting to attribute any outcomes and impacts to the project intervention, the evaluator should consider the difference between *what has happened with, and what would have happened without, the project*. This implies that there should be consideration of the baseline conditions, trends and counterfactuals in relation to the intended project outcomes and impacts. It also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions, trends or counterfactuals is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

35. **Communicating evaluation results.** A key aim of the evaluation is to encourage reflection and learning by UN Environment staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons. Clear and concise writing is required on all evaluation deliverables. Draft and final versions of the main evaluation report will be shared with key stakeholders by the Evaluation Office. There may, however, be several intended audiences, each with different interests and needs regarding the report. The Evaluation Manager will plan with the consultant which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some or all of the following; conference calls with relevant stakeholders, the preparation of an evaluation brief, or an interactive presentation.

Objective of the Evaluation

36. In line with the UN Environment Evaluation Policy²⁶ and the UN Environment Programme Manual²⁷, 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 main project partners in each country. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation, especially for the additional phases of the biosafety projects, if applicable.

Key Strategic Questions

²⁶ <http://www.UNEnvironment.org/eou/StandardsPolicyandPractices/UNENVIRONMENTEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

²⁷ [http://www.UNEnvironment.org/QAS/Documents/UN ENVIRONMENT_Programme_Manual_May_2013.pdf](http://www.UNEnvironment.org/QAS/Documents/UNENVIRONMENT_Programme_Manual_May_2013.pdf) . *This manual is under revision.*

37. In addition to the evaluation criteria outlined 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:

To what extent were the projects able to assist Nigeria, Ghana and Liberia to establish and consolidate a fully **functional and responsive regulatory regime** that responds to their obligations under the Cartagena Protocol on Biodiversity, as well as their national needs for a viable and profitable National Biosafety Framework?

To what extent were the projects able to develop **institutional and technical capacity, awareness and participation** amongst the key actors in Nigeria, Ghana and Liberia to ensure that biosafety becomes part of their permanent action?

To what extent were the projects able to assist Nigeria, Ghana and Liberia to establish and consolidate a functional **national system that can monitor Biotechnology and follow up the releases of Living Modified Organisms (LMOs)** and their possible effects on the environment?

To what extent are **outcome indicators verifiable**, and record progresses towards their target values?

Evaluation Criteria

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

Strategic Relevance

39. 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 projects' 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 Strategy²⁸ (MTS) and Programme of Work (POW)

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

ii. Alignment to UN Environment /GEF Strategic Priorities

41. GEF strategic priorities will vary across interventions. UN Environment strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building²⁹ (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.

²⁸ 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.

²⁹ <http://www.UNEnvironment.org/GC/GC23/documents/GC23-6-add-1.pdf>

iii. Relevance to Regional, Sub-regional and National Environmental Priorities

42. The evaluation will assess the extent to which the interventions are suited, or responding to, the stated environmental concerns and needs of the countries, sub-regions or regions where they are being implemented. Examples may include: national or sub-national development plans, strategies or Nationally Appropriate Mitigation Action (NAMA) plans, or regional agreements etc.

iv. Complementarity with Existing Interventions

43. An assessment will be made of how well each 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. Linkages with other interventions should be described and instances where UN Environment's comparative advantage has been particularly well applied should be highlighted.

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

Quality of Project Design

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

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

C. Nature of External Context

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

D. Effectiveness

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

Achievement of Outputs

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

Factors affecting this criterion may include: preparation and readiness, and quality of project management and supervision³⁰.

i. Achievement of Direct Outcomes

48. The achievement of direct outcomes is assessed as performance against the direct outcomes as defined in the reconstructed³¹ Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in (i) 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 contribution should be included.

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

ii. Likelihood of Impact

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

50. 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.³²

51. The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication³³ as part of its Theory of Change and as factors that are likely to contribute to longer term impact.

³⁰ 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.

³¹ 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.

³² Further information on Environmental, Social and Economic Safeguards (ESES) can be found at <http://www.UNEnvironment.org/about/eses/>

³³ *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.

52. 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 Goals³⁴ and/or the high level results prioritised by the funding partner.

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

E. Financial Management

53. Financial management will be assessed under three broad themes: *completeness* of financial information, *communication* between financial and project management staff and *compliance* with relevant UN financial management standards and procedures. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output level and will be compared with the approved budget. The evaluation will assess the level of communication between the Task Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach. The evaluation will verify the application of proper financial management standards and adherence to UN Environment's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted.

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

F. Efficiency

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

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

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

G. Monitoring and Reporting

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

³⁴ A list of relevant SDGs is available on the EO website www.UN Environment.org/evaluation

i. Monitoring Design and Budgeting

57. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART³⁵ indicators towards the achievement of the projects outputs and direct outcomes, including at a level disaggregated by gender or groups with low representation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

Monitoring Implementation

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

ii. Project Reporting

59. UN Environment through its GEF Biosafety projects has a centralised Project Management Reporting Information System – ANUBIS, through the projects upload reports (quarterly, half yearly and annual) against agreed project milestones. This information will be provided to the Evaluation Consultant by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (specifically the Project Implementation Reviews and Tracking Tool). The evaluation will assess the extent to which both UN Environment and donor reporting commitments have been fulfilled.

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

H. Sustainability

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

i. Socio-political Sustainability

61. 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

62. 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

³⁵ SMART refers to indicators that are specific, measurable, assignable, realistic and time-specific.

dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the direct outcomes of a project have been extended into a future project phase. The question still remains as to whether the future project outcomes will be financially sustainable.

iii. Institutional Sustainability

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

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

Factors and Processes Affecting Project Performance

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

i. Preparation and Readiness

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

ii. Quality of Project Management and Supervision

66. 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.

67. 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 project management should be highlighted.

iii. Stakeholder Participation and Cooperation

68. 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

69. 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.

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

v. Country Ownership and Driven-ness

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

vi. Communication and Public Awareness

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

Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

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

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

(a) **A desk review** of:

- Relevant background documentation, inter alia UNEP, SCBD and GEF-4 policies, strategies and programmes pertaining to biosafety at the time of the project's approval;
- 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/technical and quarterly financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;
- Project outputs/outcome reports, if available

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

- UN Environment Task Manager (TM);

- Project management team;
 - UN Environment Fund Management Officer (FMO);
 - Project partners in each country, including national executing agencies, project coordinators, members of the national coordinating committees and advisory group/steering committee;
 - Other relevant resource persons.
- (c) **Field visits** of approximately 4-5 days in each country to be scheduled in consultation with the project team and the Evaluation Office of UN Environment;
- (d) **Other data collection tools** as may be deemed useful.

Evaluation Deliverables and Review Procedures

75. The consultant will prepare and submit the following deliverables for **each project**:

- **Inception Report:** (see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.
- **Draft and Final Evaluation Report:** (see links in Annex 1) containing an executive summary that can act as a standalone 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 Bulletin:** a 2-page summary of key evaluation findings for wider dissemination through the EOU website.

76. **Review of the draft evaluation report.** The consultant 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 consultant 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 consultant for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

77. Based on a careful review of the evidence collated by the evaluation consultant 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.

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

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

The Consultant

80. For this evaluation, one consultant will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager (Pauline Marima), in consultation with the UN Environment Task Manager (Alex Owusu-Biney), Fund Management Officer (Paul Vrontamitis³⁶) 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 team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultant to conduct the evaluation as efficiently and independently as possible.

81. The consultant will be hired over the period May/2017 to December/2017 during which time the evaluation deliverables listed in Section 11 '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 is required. Knowledge of English language along with excellent writing skills in English is required. Experience in managing partnerships, knowledge management and communication is desirable for all evaluation consultants.

82. 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 above in Section 11 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>).

Schedule of the evaluation

83. The table below presents the tentative schedule for the evaluation.

Table 3. Tentative schedule for the evaluation

Milestone	Tentative timeline
Kick-off meeting	May 2017
Inception Report	June 2017
Data collection and analysis, desk-based interviews and surveys	June - September 2017
Field Mission – 4-5 days in each country (based on meeting arrangements and available budget)	October 2017
Draft report to Evaluation Manager (and Peer Reviewer)	November 2017
Draft Report shared with UN Environment Project Manager and team	November 2017
Draft Report shared with wider group of stakeholders	December 2017
Final Report	December 2017

Contractual Arrangements

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

³⁶ Ruth Irungu supports Paul Vrontamitis in the fund management of the projects

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

85. Schedule of Payment for the Consultant:

Nigeria NBF

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

Ghana

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

Liberia

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

86. **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.

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

88. 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 consultant have improved the deliverables to meet UN Environment’s quality standards.

89. 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 consultant’s fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

Annex 3: List of People Met

GHANA – LIST of PEOPLE MET (22-27/10/2017)

NAME	POSITION & INSTITUTION
Mr Eric Okoree	CEO of the National Biosafety Authority (NBA) eriokor@yahoo.com
Mr K. Bosompen	Former Chair of the Nat. Biosafety Committee and member of the Board of the NBA, Director of the Noguchi Memorial Institute, University of Ghana KBosompem@noguchi.ug.edu.gh
Mr. Kenneth Danso	Nat. Project Coordinator, Director of the Biotechnology and Nuclear Agriculture Research Institute (BNARI) kaedanso@hotmail.com
Mr Derek Appiah	Project Financial Assistant, BNARI
Mrs. Yaa Difie	Chair of the Technical Advisory Committee (TAC), member of the Board of the NBA
Mr A. Mensah	Director of Customs Laboratory. Member of the Board of the NBA
Mr S. Timpo	Principal Programme Officer of the African Biosafety Network of Expertise (ABNE)
Mr C. Frimpong	Director of Testing at the Laboratory of the Ghana Standards Authority (GSA)
Ms. Doris Dzimega	Technical Officer of the NBA
Staff of the Nat. Biosafety Authority	Joint Meeting

Annex 4: Summary Co-Finance Information and Statement of Project Expenditure by Activity

Project costs and co-financing tables (October 2017)

Component/sub-component	Estimated cost at design (USD)	Actual Cost (USD)	Expenditure ratio (actual/planned)
1. Stocktaking and Biosafety Policy	45,000	29,872.00	66.4%
2. Regulatory and Administrative Systems	188,000	119,122.48	63.4%
3. Monitoring and Enforcement Systems	250,000	124,269.00	49.7%
4. Public awareness & participation	70,000	6,566.17	9.4%
5. Project coordination, Monitoring and Evaluation	83,364	76,113.87	91.3%
Total	636,364 **	355,943.52	56%

**Advance received: 584,785.53

Table 4: Co-financing Table

Co financing (Type/Source)	UNEP own Financing (US\$1,000)		Government (US\$1,000)		Other* (US\$1,000)		Total (US\$1,000)		Total Disbursed (US\$1,000)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
- Grants									
- Loans									
- Credits									
- Equity investments									
- In-kind support			800	430.21			800	430.21	430.21
- Other (*)									
Totals			800	430.21			430.21	430.21	430.21

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

Annex 5: Evaluation Bulletin

Terminal Evaluation of GEF/UN Environment Projects supporting the National Biosafety Frameworks Implementation in Ghana, Liberia and Nigeria (2011-2017)



National Biosafety Frameworks (NBF) Implementation

The common overall objective of the Projects was to assist the countries in achieving an operational National Biosafety Framework (NBF) including:

- A Government policy on biosafety
- A regulatory regime for biosafety
- An administrative system to handle notifications or requests for GMOs authorisations
- Systems for 'follow up' such as enforcement and monitoring for environmental effects
- Mechanisms for public awareness, education and participation.

Ghana, Liberia and Nigeria show a similar pathway in the development and implementation of their NBF. They all ratified the Protocol in 2003, developed a NBF with the support of GEF/UN Environment in the same years (from 2002 to 2004/2006) and moved to NBF implementation within the same financial frame (GEF-4), being granted an Implementation Project virtually in the same period (from 2011/12 to 2017).

GEF budget allocation for the three Projects was:

Ghana	USD 636.364
Liberia	USD 577.679
Nigeria	USD 965.000

Relevance

The Projects have played a key-role in the progress of the NBF in the three countries.

- In **Ghana and Nigeria**, the Project time-frame has coincided with the implementation of a new Regulatory regime and subsequent establishment

of two new Competent Authorities: the National Biosafety Authority (NBA) in Ghana and the National Biosafety Management Agency (NBMA) in Nigeria, both operational since 2015. In both cases, therefore, the Projects have been highly instrumental to the progress of the NBF in a delicate phase of change and evolution.

- Biosafety baseline was less developed in **Liberia** and the overall socio-political and economic context far more challenging. The Project has strategically supported the Environmental Protection Agency (EPA) in integrating Biosafety among its priorities and in supporting a proactive group of stakeholders in the formulation and drafting of all regulatory and administrative tools of the Biosafety Framework.
- The three projects have been actively cooperating with Regional, African and International partners (e.g. ECOWAS, African Biosafety Network of Expertise / NEPAD, USAID, among others).



Performance

- Biosafety Regulatory regimes responding to the obligations of the Cartagena Protocol are operational in Ghana and Nigeria (Biosafety Laws, Regulations, Guidelines), whereas Liberia did not succeed so far to approve the draft Law and Regulations.
- The pivotal role of the National Biosafety Authority (Ghana) and of the National Biosafety Management Agency (Nigeria) is clear, as well as the mechanisms and procedures for processing requests of GMOs Authorizations, for Decision-making and for implementing Risk Assessment and Risk Management measures.

- Liberia has set a Biosafety Unit within the Dept. of Multilateral Environmental Agreements of the EPA and a National Biosafety Committee is actively in place to support awareness, education, lobby and advocacy activities at different levels.
- Nigeria and Liberia have put in place their first laboratory for GMO detection.
- Mechanisms for Public Awareness, Education and Participation have been put in place at a variable extent. Nigeria has translated the Biosafety Law in three national languages and so far organized four National Conferences with a very large participation of different societal groups. Liberia has started a first University course on Biosafety (Dept. of Biological Sciences) with 32 enrolled students.



Outreach activities at Schools in Liberia

Factors affecting projects' performance

- Projects are bound by timeframes (3-4 years) that are usually inconsistent with the dynamics and the timing of governance processes. This is a major constrain that has made very difficult (Ghana and Nigeria) or impossible (Liberia) to achieve the expected institutional results (e.g. approval of Laws and Regulations, setting of new Biosafety Authority or Agency) within the planned project's schedule.
- National Biosafety Stakeholders of the three countries usually point out similar reasons that (at a variable extent depending on the country) have brought about hindrances and delays, such as:
 - Change of Government
 - Change of Parliamentarians
 - Change of line-Ministries
 - Multi-sectoral nature of Biosafety
 - Poor knowledge / awareness on Biosafety
 - Controversial nature of GMOs debate
 - Administrative / bureaucratic inertia
 - Institutional indifference
 - Other national priorities.

- Capacity Building remains a limiting factor for progressing Biosafety agenda in the three countries. Even though Biotechnology is a well-developed sector in Ghana and Nigeria, Biosafety is still in need of a consistent critical mass of experts to support Risk Analysis in its different perspectives: impact on Biodiversity and Human Health, socio-economic implications of GMOs introduction, linkage with other national, regional and international norms (capacity building of the Judiciary).

The way forward: challenges and perspectives

- **Ghana and Nigeria** have given steady and significant steps to implement their NBF. Nigeria has recently authorized the environmental release of GMO Cotton and Ghana has been for years developing Confined Field Trials in different crops, with the perspective of their possible commercial use.
- The two countries need to enhance and consolidate their **new Competent Authorities (NBA and NBMA)** through focused capacity building plans in the short and medium term. Both institutions also need to gain wider acceptance among different societal sectors and to consolidate their impartial role of neutral brokers.



National Conference of Biosafety Stakeholders in Nigeria

- Biosafety programs are still at an early stage in **Liberia**, despite significant advances in the last few years. The possibility of focused training and internships of Liberian technicians and experts to Ghana and Nigeria should be effectively explored and implemented.
- **Regional** (West Africa through ECOWAS) and **African cooperation** (e.g. NEPAD) is an on-going and promising factor of development of Biosafety agenda to be fostered through common capacity building actions and exchanges. **UN Country Teams** (UNCT) could also play an active role on Biosafety by promoting a common agenda on Biotechnologies and Biosafety among the line-agencies (e.g. UN Environment, FAO, WHO).

Annex 6: Comparative Analysis of Ghana, Liberia and Nigeria Projects of National Biosafety Framework Implementation

Comparative analysis of Ghana, Liberia and Nigeria NBF Implementation Projects

(November 2017)

A) Overview

Ghana, Liberia and Nigeria share a geographical (West Africa) and institutional context (e.g. the ECOWAS / Economic Community of West African States). The three countries are also linked by their common language (English), whereas most of the countries in the Region is Francophone.

At the same time, as schematised in the following table, key socio-economic and demographic indicators of the three countries are very dissimilar.

Table 1: some key socio-economic indicators

	Area 000 Km ²	Population 2016 Million people ³⁷	Pop. Density (p/ Km ²)	GDP 2016 Million USD ³⁸ (world ranking)	GDP per capita USD (2016) ³⁹	Economy classification (World Bank)	HDI 2016 ⁴⁰ (ranking)	HDI classification ⁴¹
Ghana	238,5	28,2	118	42.690 (85)	1.513,46	Lower- Middle Income	0,579 (139)	Medium Hum. Dev.
Liberia	111,3	4,6	41	2,101 (167)	455,37	Low-Income	0,427 (177)	Low Human Dev.
Nigeria	923,7	185,9	201	405.083 (26)	2.177,99	Lower- Middle Income	0,527 (152)	Low Human Dev.

B) The progress of the National Biosafety Framework in Ghana, Liberia and Nigeria

- The three countries show a similar pathway in the development and implementation of their National Biosafety Framework (NBF). They all ratified the Protocol in 2003, developed a NBF with the support of GEF/UN Environment in the same years (Ghana and Liberia from 2002 to 2004 and Nigeria from 2002 to 2006) and moved to NBF implementation within the same financial frame (GEF-4), being granted an Implementation Project (under current evaluation) virtually in the same period (from 2011-12 to 2017, including extensions).
- In absence of a full regulatory regime in place (which only happened in Ghana and Nigeria in 2011 and 2015, respectively), the three countries have been promoting and implementing the

³⁷ Source: World Bank

³⁸ Source: World Bank

³⁹ Source: World Bank

⁴⁰ Human Development Report, UNDP, 2017

⁴¹ Human Development Report, UNDP, 2107

Biosafety agenda for years mainly through collaborative mechanisms, so-called National Biosafety Committees (NBC) or National Coordinating Committees. Though at a variable extent and with different institutional roles, the Committees have played a key, driving role in the definition, discussion and revision of the Biosafety Regulatory regime, have carried out incessant lobbying and advocacy actions towards policy and decision-makers and have represented a highly significant opportunity for stakeholders' meaningful participation in the shaping of the National Biosafety Framework and, as in the case of Ghana, in decision-making on GMOs application.

- The evolution of the NBCs has been different in the three countries:
 - Liberia does not have so far approved any Law regarding Biosafety and the National Biosafety Committee is still in place as a collaborative mechanism supporting the Biosafety Unit of the Competent National Authority (the Environmental Protection Agency, NPA), yet, with no formal, statutory role.
 - Ghana has recognised, through its Regulations of 2007, the National Biosafety Committee (NBC) as the Competent National Authority and National Focal Point for Biosafety. Later, following the approval of the Biosafety Act in 2011, this role has been transferred to the newly created National Biosafety Authority (NBA), namely to its Governing Board (where some of the institutions members of the previous NBC are present). A Technical Advisory Committee (TAC) has also been created by the Biosafety Law of 2011 for technically supporting the Board in decision-making, particularly in risk assessment. Ghana has four on-going field trials and, so far, no application received for GMOs deliberate release into the environment.
 - In Nigeria, the National Biosafety Management Agency (NBMA) has been created by Law in 2015 and has, in fact, become the new Competent National Authority and Focal Point for Biosafety, assuming the full responsibility on Biosafety in the country, including decision-making and risk assessment. According to the Law (2015) and subsequent Regulations (2017) the Agency may set an "ad hoc" National Biosafety Committee for advising on risk assessment and decision-making. Nigeria has five on-going field-trials and has also authorised in 2016 the commercial use (deliberate release) of GMO cotton.

C) The Competent National Authorities (CNA) in the three countries

- In Liberia the Environmental Protection Agency is the Governmental Agency responsible for the sustainable management of the environment and its natural resources and for the implementation of the Multilateral Environmental Agreements ratified by the country, including the Cartagena Protocol.
- Ghana and Nigeria have opted for the creation, by Law, of a specific institution (the National Biosafety Authority in Ghana and the National Biosafety Management Agency in Nigeria) responsible for the overall Biosafety Management in the country (decision-making on applications, risk assessment and management, coordination and supervision, monitoring and enforcement, public information and participation).

Ghana	Liberia	Nigeria
<p>The NCA was the National Biosafety Committee until the approval of the Biosafety Law in 2011.</p> <p>The Law of 2011 established the <u>National Biosafety Authority (NBA)</u> that is the current Competent National Authority for the Cartagena Protocol.</p>	<p>The <u>Environmental Protection Agency (EPA)</u> is the Competent National Authority for the Cartagena Protocol since the country's ratification of the Protocol in 2003.</p>	<p>The Federal Ministry of Environment was the CNA until the approval, in 2015, of the Law that established the new <u>National Biosafety Management Agency (NBMA)</u> and transferred to the new Agency all competencies regarding the Protocol.</p>

D) Approach to the Regulatory Framework and Decision-making process

- Liberia has not yet approved a Biosafety Law and Regulations, which, nonetheless, have been discussed and prepared since 2014. At the current stage, therefore, the country does not have a legally approved regulatory regime in place.
- Ghana and Nigeria have approved, respectively in 2011 and 2015, a national Law on Biosafety⁴². As mentioned above, the two Laws have established and fully empowered a new “ad hoc” national Authority / Agency for Biosafety. Both institutions are managed by a Chief Executing Officer (CEO) appointed by the President.
- There are substantive differences in the form of management and of decision-making among the two countries:
 - Ghana has opted for a “light” institutional model of its National Biosafety Authority, with a strong collegiality in decision-making and a significant devolution of powers to external, frontline “Regulatory Agencies”. Decision-making power on Applications lies on the Board of the Authority, whose membership is established by Law and whose members (13 members) are appointed by the President for a duration of three years. Consequently, the staff of the Authority (a total of 25 members foreseen in the organogram) is supposed to function as a sort of Secretariat in support of the Governing Body of the Authority and to liaise with the sectoral Regulatory Agencies. A Technical Advisory Committee (TAC), also foreseen by the Law, is nominated by the Board for a period of three years to advise the Board on different technical issues.
 - Nigeria has opted for the creation of a centralised, self-contained and robust National Biosafety Management Agency (NBMA), which currently includes more than 200 staff members. The Agency has full responsibility and power on all aspects of Biosafety Management in the country, including Risk Assessment and Risk Management, Decision-making on Applications, Monitoring and Supervision, Inspection and Enforcement. The Board of the Agency only has advisory functions regarding the functioning of the Agency (not on Biosafety Management issues). Non-mandatory, “ad hoc” Committees (a National Biosafety Committee and a National Biosafety Technical Sub-Committee) may be called by the Agency in support of its regulatory functions, namely for Risk Assessment. Both

⁴² The Biosafety Act 831 / 2011 in Ghana, the National Biosafety Management Act of 2015 in Nigeria

Committees have an advisory function and their membership is not defined by Law, but decided by the Agency on a case-by-case basis, according to the need.



















E) Projects timeframe and governance processes






















- Projects are bound by timeframes (e.g. 3 years in case of Ghana and 4 years for Liberia and Nigeria) that are usually inconsistent with the dynamics and the timing of governance processes. This is a major constrain that has made very difficult (Ghana and Nigeria) or impossible (Liberia) to achieve the expected results in the institutional sphere (e.g. approval of Laws and Regulations, establishment of new Biosafety Authority or Agency) within the planned project's schedule.
- National Biosafety Stakeholders of the three countries usually point out similar reasons that (at a variable extent depending on the country), have brought about hindrances and delays. A list of them include:
 - Change of Government
 - Change of Parliamentarians
 - Change of line-Ministries
 - Multi-sectoral nature of Biosafety
 - Controversial nature of GMOs debate
 - Administrative / bureaucratic inertia
 - Institutional indifference
 - Different priorities
 - Poor knowledge on Biosafety

F) Public Awareness, Education and Participation: a challenging issue

- The three Projects Teams attribute great relevance to the setting of an effective Biosafety System for Public Information, Awareness and Participation and believe that the System plays a key-role for the socio-political sustainability of the National Biosafety Framework.
- The Projects are experiencing a common problem in tackling the issue, due to the variety of "target groups" to be addressed: President's Office, Government, Line-Ministries, members of the Parliament, Officers of Stakeholders Line-Ministries and Agencies, Academic institutions and Schools, Lawyers and Judiciary System, the Media, Consumers Associations, Farmers Associations, Private Sector, Environmental and Civil Society NGOs.
- The Projects show concerns regarding the form of properly conveying what they usually define "right messages on GMOs and Biosafety" to the different audiences listed above. The Communication Strategies they are conceiving and developing seem focused on "how communicate to", more than "how communicate with". The weakness of an effective two-way communication can deprive Biosafety managers of a relevant instrument to understand societal opinions, perceptions, doubts and concerns regarding GMOs and Biosafety, which is a crucial element for the smooth development of Biosafety agenda in the countries.

Comparative Analysis of main components of the National Biosafety Framework

Component	GHANA	LIBERIA	NIGERIA
Biosafety Policy	<ul style="list-style-type: none"> ▪ Approved by the Line-Ministry ▪ Biosafety included in the NBSAP ▪ Mid-term (2018-21) Biosafety Plan prepared to fit-in Nat. Dev. Plan 	<ul style="list-style-type: none"> ▪ No Policy approved ▪ Biosafety included in the NBSAP 	<ul style="list-style-type: none"> ▪ Approved by the federal Council ▪ Biosafety yet included in the NBSAP (NBSAP revision on-going) 
Regulatory Framework			
Biosafety Law	YES (2011) 	NO (drafted but not approved) 	YES (2015) 
Biosafety Regulations	NO (drafted but not approved) 	NO (drafted but not approved) 	YES (2017) 
Guidelines	YES (several guidelines prepared and adopted) 	Partially (Guidelines prepared but not in force) 	YES (several guidelines prepared and adopted) 
Competent National Authority	National Biosafety Authority (NBA), established by Law (2011), in place since 2015 (10 staff at October 2017) 	Environmental Protection Agency (NBA), with a Biosafety Unit within the Dept. of Multilateral Env. Agreements and the support of a Nat. Biosafety Committee (collaborative mechanisms, non-statutory body). 	National Biosafety Management Agency (NBMA) established by Law (2015) and in place since 2015 (207 staff at October 2017) 
Administrative System	<ul style="list-style-type: none"> ▪ Operational ▪ Guidelines and other tools in place ▪ MoUs with frontline Regulatory Agencies  	<ul style="list-style-type: none"> ▪ Not in place ▪ Guidelines prepared, not in force 	<ul style="list-style-type: none"> ▪ Operational ▪ Guidelines and other tools in place ▪ MoUs with Partners 

	Decision-making process by Law	The Board of the NBA decides on applications with support from Technical Advisory Committee	Not applicable	NBMA decides. It may request advising on Risk Assessment from "ad hoc" National Biosafety Committee (non-mandatory).
Follow-up, Monitoring & Enforcement System		<ul style="list-style-type: none"> Operational Guidelines and other tools in place MoUs with frontline Regulatory Agencies 	<ul style="list-style-type: none"> Not in place Guidelines prepared, not in force 	<ul style="list-style-type: none"> Operational Guidelines and other tools in place MoUs with frontline Regulatory Agencies 
	GMO Laboratory	<ul style="list-style-type: none"> Lab not installed 	<ul style="list-style-type: none"> Lab in place but not operational 	<ul style="list-style-type: none"> Lab in place, fairly operational with staff 
Public Awareness and Participation System		<ul style="list-style-type: none"> Communication Strategy drafted 	<ul style="list-style-type: none"> Public Participation Strategy under preparation 	<ul style="list-style-type: none"> Communication Strategy drafted, under review and 2-year Plan under preparation 
	Biosafety Curricula	<ul style="list-style-type: none"> Biosafety Curricula prepared (for Academic level and for Extension), not yet implemented 	Biosafety Curricula prepared and approved, on-going courses at the University (Biology) with 32 students 	<ul style="list-style-type: none"> Biosafety Curricula not in place 
TOTAL		  	  	  

LIST OF DOCUMENTS CONSULTED

Project and GEF / UN Environment Documents:

- Terms of Reference of the Terminal Evaluation (2017)
- Evaluation Criteria and Ratings Table (UNEP, 2016)
- Use of Theory of Change in project evaluations (UNEP, 2016)
- ROTI - Review of Outcomes to Impact: Practitioners Handbook, 2009, GEF
- Project Document "Implementation of the National Biosafety Framework for Ghana" and its Annexes (in ANUBIS)
- GEF Project Identification Form "Implementation of the National Biosafety Framework for Ghana" (GEF website)
- From ANUBIS: PIRs, Budget Revisions, Audit Reports, Technical Reports, etc.
- Tools and documents in <http://www.unep.org/evaluation/>

Global / Background documents:

- Cartagena Protocol on Biosafety (CPB)
- Bali Strategic Plan for Technology Support and Capacity- building
- Status of capacity-building activities, UNEP/CBD/BS/COP-MOP/5/INF/9, September 2010
- UNEP Programme of Work 2010-2011
- UNEP Medium-term Strategy 2010–2013, "Environment for Development"
- Strategic plan of CPB 2011-20
- A Comparative Analysis of Experiences and Lessons from the UNEP-GEF Biosafety Projects, 2006, UNEP-GEF Biosafety Unit
- Guidance towards Implementation of National Biosafety Frameworks: Lessons Learned from the UNEP Demonstration Projects, 2008, UNEP-GEF Biosafety Unit
- Learning from experience, the global UNEP-GEF BCH Capacity building project, 2008, UNEP-GEF
- Public Participation and the Cartagena Protocol on Biosafety, A review for DfID and UNEP-GEF (IDS)
- An Explanatory Guide to the Cartagena Protocol on Biosafety, IUCN, 2003
- Genetically Modified Organisms and Biosafety: A background paper for decision-makers and others to assist in consideration of GMO issues, IUCN, 2004

Ghana websites:

[https://www.thegef.org/projects?f\[\]=field_country:67&f\[\]=field_p_focalareas:2205&f\[\]=field_p_impl_agencies:171](https://www.thegef.org/projects?f[]=field_country:67&f[]=field_p_focalareas:2205&f[]=field_p_impl_agencies:171)

- <http://bch.cbd.int/about/countryprofile.shtml?country=gh>
- <http://www.fao.org/countryprofiles/index/en/?iso3=GHA>
- <https://nba.org.gh/>
- <http://mesti.gov.gh/>
- <http://www.csir.org.gh/>
- <http://www.epa.gov.gh/epa/>
- <http://fdaghana.gov.gh/>
- <http://data.gov.gh/group/ministry-food-and-agriculture-mofa>
- <http://foodsovereigntyghana.org/>
- <https://allianceforscience.cornell.edu/tags/ghana->

Annex 8: Brief CV of the Consultant

Camillo Risoli (Italy, 1953) is a seasoned international expert in rural development and environmental management. He has a long experience (more than 30 years) in the implementation, coordination and management of projects and programs in Africa and Latin America, with different donors and agencies. Capacity and Institution Building for Rural Development is his main area of expertise.

Camillo has worked as an expert, a chief technical adviser and an independent consultant for UN agencies (FAO, UNEP), Bi-lateral Cooperations (SDC – Swiss Cooperation, Italian cooperation, EC Delegations) and for International NGOs. He has been Team Leader in Long-Term Missions in Nicaragua (1980-82), Cape Verde (1986-96), Mozambique (1996-99) and Zimbabwe (2003-2005).

Food Security and Poverty Reduction have been at the core of his professional commitment, through Community-based projects and participatory actions, Organization & training of rural associations, Sustainable land use and agriculture, Partnership strengthening and networking (Public, Private, Civil Society) for decentralised and participatory local development.

Mainstreaming Environmental issues in Pro-Poor Strategies has been a main component of his action, through Soil & water conservation projects, Reforestation and agro-forestry initiatives, Watershed management and land use planning, Sustainable management of natural resources (soil, water, forests and bio-diversity).

Camillo has acquired a robust experience in advising on national policies and strategic planning for rural development, a solid background in PCM (Programme Cycle Management) and strong skills in Project Monitoring & Evaluation (M&E).

Since 2005, he works as an Independent Consultant and has carried out and led relevant Evaluation missions, such as the Mozambique National Action Plan for Food Security (FAO), the LADA Project - Land Degradation Assessment in Drylands (FAO/UNEP-GEF) in Argentina and China, the Post-Conflict Rural Development in Ivory Coast (FAO/ADB), the setting of the M&E System for FAO/CLCPRO Program (Commission for Locust Control in Western Africa and Maghreb Region), the terminal evaluation of the FAO Programme of Food Security through Commercialization in West Africa (Gambia, Guinea, Liberia, Senegal, Sierra Leone) and the Evaluation of FAO's Decentralization in Latin America & the Caribbean (2013).

From 2012 on, Camillo has carried-out the Biosafety National Frameworks Evaluation (UNEP-GEF) in Kenya, Namibia, Poland, Lithuania, Czech Republic and Slovakia (2012), Bhutan, Lao PDR and Mongolia (2014), Albania, Macedonia and Egypt (2015), Ghana, Liberia and Nigeria (2017) and the Final Evaluation of the Global GEF/UNEP Programme (123 countries) "Development of National Biosafety Frameworks" (2016).

Camillo has a graduate degree in Agricultural Sciences, a Post-Graduate Diploma in Environmental Management at London University and a PhD in Adult Education. He has published with FAO training manuals and methodological guides for trainers and extensionists.

Camillo is currently engaged in the creation of a small private company in partnership with farmers' associations (out-growing scheme) for the development of a profitable value-chain of Aloe Vera in Cape Verde.

Annex 9: Quality Assessment of the Evaluation Report

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	Rating
Substantive Report Quality Criteria		
<p>Quality of the Executive Summary:</p> <p>The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.</p>	The Executive Summary covers the most pertinent issues / highlights of the evaluation findings. Lessons earned and recommendations are also included	5
<p>I. Introduction</p> <p>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.)</p> <p>Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?</p>	Precise, well written and captures the main introductory points	5
<p>II. Evaluation Methods</p> <p>This section should include a description of how the <i>TOC at Evaluation</i>⁴³ 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</p>	This section is complete, concise, and it covers the required sub-topics satisfactorily	6

⁴³ 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*.

<p>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>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 • <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>This section is also complete and covers all the required sub-topics in a concise and clear manner.</p>	<p>6</p>
<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</p>	<p>The TOC diagram is coherent and is a result of a consultative process. The narrative is clear and provides a suitable explanation of the causal pathways depicted in the diagrammatic representation. Drivers and Assumptions, as well as stakeholders/change agents in the pathways are described.</p>	<p>5</p>

<p>long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.</p>		
<p>V. Key Findings</p> <p>A. Strategic relevance:</p> <p>This section should include an assessment of the project’s relevance in relation to UN Environment’s mandate and its alignment with UN Environment’s policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:</p> <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 all the main aspects of relevance prescribed in the TOR</p>	<p>6</p>
<p>B. Quality of Project Design</p> <p>To what extent are the strength and weaknesses of the project design effectively <u>summarized</u>?</p>	<p>The strengths and weaknesses of the design are sufficiently described. Where relevant, references to the PDQ assessment that was completed at the inception phase have been used to further support the rating of this criterion.</p>	<p>5</p>
<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 report sufficiently describes the key external issues that are most likely to affect the project’s performance. This is also cross referenced in other sections of the report as appropriate</p>	<p>6</p>
<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>Outputs are described by component, and with sufficient evidence provided to support a detailed assessment of the delivery of outputs. The chapter also presents a qualitative analysis and interpretation of the Outcomes achieved in the light of the reconstructed Theory of Change (TOC) from Outputs to Outcomes.</p>	<p>6</p>
<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 narrative provides an adequate and considered analysis of the causal pathways from outcomes to intermediate states through to impact. The ROTI method has been applied to rationalize the rating given. Cross referencing to the TOC has also been used.</p>	<p>5</p>

<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 has been covered well and a table summarizing financial management performance is included. Issues of completeness, communication and compliance are addressed to varying degrees.</p>	<p>5</p>
<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>This section has been covered sufficiently.</p>	<p>5</p>
<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 (<i>e.g. PIMS and donor report</i>) 	<p>This section is well covered and goes beyond assessing the progress reporting by also looking into the project’s results-based monitoring and how the findings of the monitoring toolkit have been used for adaptive management.</p>	<p>6</p>
<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>The assessment of sustainability does identify the most pertinent issues likely to undermine sustenance of outcomes. The analysis is satisfactory</p>	<p>5</p>
<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 	<p>The required sub-criteria are all covered sufficiently. Cross referencing has been done appropriately. Suggestions for improvement (e.g. inclusion of supporting evidence) have been made satisfactorily</p>	<p>5</p>

<ul style="list-style-type: none"> • Quality of project management and supervision⁴⁴ • Stakeholder participation and co-operation • Responsiveness to human rights and gender equity • Country ownership and driven-ness • Communication and public awareness 		
<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? 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>	The conclusions section is very well developed and clearly presents the most critical findings of the evaluation. Responses to the key strategic questions are satisfactory.	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>	The lessons are relevant and based on findings. The context is summarized well and crossreferences have been used adequately.	5
<p>iii) Quality and utility of the recommendations: 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>	The recommendations are clear, relevant and identify the action and who should implement it.	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>	Well done. Follows the EO guidelines	6
<p>ii) Quality of writing and formatting: Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?</p>	Clear, well formatted document	6

⁴⁴ 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.

OVERALL REPORT QUALITY RATING	S
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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.