
**Terminal Evaluation of the UN Environment/Global
Environment Facility Project “Capacity Building for
the Implementation of the National Biosafety
Framework of Swaziland”**

TERMINAL EVALUATION REPORT

**Evaluation Office of UN Environment
July 2018**

Evaluation Office of UN Environment

This report has been prepared by independent consultants Dr. Segbedzi Norgbey and Mr Charles Gbedemah and is a product of the Evaluation Office of UN Environment. The authors do not accept any responsibility to any other party to whom this report may be shown or into whose hands it may come. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this report, and, to the extent permitted by law, the authors accept no liability, and disclaim all responsibility, for the consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this report or for any decision based on it. The information provided in this report is based on the best information and documentation available at the time of preparation. The findings and conclusions expressed herein do not necessarily reflect the views of Member States of the UN Environment Senior Management.

For further information on this report, please contact:

Evaluation Office of UN Environment
P. O. Box 30552-00100 GPO
Nairobi Kenya
Tel: (254-20) 762 3389
Email: chief.eou@unep.org

Capacity Building for the Implementation of the National Biosafety Framework of Swaziland UNEP

GEF ID: 4077
July 2018
All rights reserved.
© (2018) Evaluation Office of UN Environment

ACKNOWLEDGEMENTS

The Evaluation Office of UN Environment would like to thank the project team of the project “Capacity Building for the Implementation of the National Biosafety Framework of Swaziland UNEP”, and in particular Alex Owusu-Biney, UN Environment, for his contribution and collaboration throughout the evaluation process. Sincere appreciation is also expressed to the Project Coordination Unit (Bongani Nkhabindze – Project Coordinator, Dumile Sithole – Assistant and Noncedo Nkabindze – Finance Officer) which so ably facilitated the conduct of this evaluation in-country.

Evaluation team

Segbedzi Norgbey (Lead Consultant)

Charles Gbedemah

Evaluation Office of UN Environment

Pauline Marima - Evaluation Manager

Mercy Mwangi - Evaluation Programme Assistant

ABOUT THE EVALUATION¹

Joint Evaluation: No

Report Language(s): English

Evaluation Type: Terminal Project Evaluation

Brief Description: This report is a terminal evaluation of a UN Environment project implemented by the Division of Environmental Policy Implementation. The overall goal of the project was to facilitate Swaziland's compliance with and the implementation of the Cartagena Protocol on Biosafety through the building of specific biosafety capacities as per identified stakeholder needs in order to empower Swaziland to effectively and efficiently implement its National Biosafety System (NBF). 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 and their implementing partners including the relevant agencies in the project participating countries.

Key words: Biosafety; Biodiversity; Biotechnology; Cartagena Protocol on Biosafety; Convention on Biological Diversity; Swaziland; Living Modified Organisms; Genetically Modified Organisms; Genetic Engineering; National Biosafety Frameworks; Capacity Building; TE; Terminal Evaluation; GEF; Global Environment Facility

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

Acronyms and Abbreviations

BCH	Biosafety Clearing House
CBD	Convention on Biological Diversity
CHM	Clearing House Mechanism
CPB	Cartagena Protocol on Biosafety
CSO	Civil Society Organizations
DCPI	UN Environment Division of Communication and Public Information
EO	Evaluation Office
LMO	Living Modified Organisms
MoUs	Memorandum of Understanding
MESA	Mainstreaming Environment and Sustainability in African Universities
NBAC	National Biosafety Advisory Committee
NBF	National Biosafety Framework
NCC	National Coordinating Committee
NCSA	National Capacity Self-Assessment
NEA	National Executing Agency
NGO	Non-Governmental Organizations
PCC	Project Coordinated Committee
NPC	National Project Coordinator
PMU	Project Management Unit
QAS	UN Environment Quality Assurance Section
SMART	Specific, Measurable, Achievable, Relevant and Time-Bound
SEA	Swaziland Environment Authority
ToC	Theory of Change
ToRs	Terms of Reference
UN	United Nations
UNISWA	University of Swaziland

Table of Contents

1.	Project Background.....	14
1.1	Context of the Project.....	14
1.2	Project objectives and components.....	14
1.3	Target areas/groups /Stakeholders.....	16
1.4	Project Implementation Structure and Partners.....	16
1.5	Milestones and changes in project design and implementation	18
1.6	Project Budget	18
1.7	Project Theory of Change	18
2.	The Evaluation	22
2.1	Purpose of the Evaluation	22
2.2	Key Evaluation Questions.....	22
2.3	Proposed Approach and Methods	22
2.3.1	Timeframe, data collection and limitations of the evaluation	23
3.	Evaluation Findings.....	25
3.1	Strategic Relevance.....	25
3.2	Effectiveness.	25
3.2.1	Delivery of Outputs	26
3.2.2	Achievement of Direct Outcomes.....	31
3.2.3	Likelihood of Impact.....	35
3.3	Sustainability of Project Outcomes.....	37
3.3.1	Socio-political factors.....	37
3.3.2	Financial conditions.....	38
3.3.3	Institutional Sustainability.....	38
3.4	Efficiency.....	39
4.	Factors Affecting Performance	41
4.1	Project Preparation and Readiness.....	41
4.2	Implementation Approach and Adaptive Management	42
4.3	Stakeholder Participation and Public Awareness.....	42
4.4	Learning, Communication and Outreach	43
4.5	Country Ownership and Driven-ness	43
4.6	Financial Planning and Management.....	43
4.7	UN Environment Supervision and Backstopping	45
4.8	Project Monitoring & Evaluation	45
4.8.1	M & E Design.....	45

4.8.2	M&E Implementation	46
4.8.3	Project Reporting.....	47
5.	Conclusions	48
5.1	Recommendations	48
5.2	Lessons Learned	50
	Annex 1: Assessment of Project Design Quality (PDQ)- Swaziland	56
	Annex 2: Documentation List	60
	Annex 3: List of Key Stakeholders – Swaziland	61
	Annex 4: Evaluation Brief	64
	Annex 5: Brief Resumes of the Consultants	66

Project Identification Table

Sub-programme:	Environmental Governance	Expected Accomplishment(s)/ Programme of Work Output(s):	PoW EA (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:	June 2012		
GEF project ID:	4077	Project type:	Medium Size Project
GEF OP #:		Focal Area(s):	Biodiversity
GEF approval date:	June 2012	GEF Strategic Priority/Objective:	SP 6 Biosafety / BD-3
Expected start date:	June 2012	Actual start date:	August 2012
Planned completion date:	May 2016	Actual completion date:	June 2017
Planned project budget at approval:	\$1,570,000	Actual total expenditures reported as of 2017:	
GEF Allocation:	\$770,000	GEF grant expenditures reported as of 30 June 2017:	\$770,000
Expected Medium-Size Project co-financing:	US\$ 800,000	Secured Medium-Size Project/Full-Size Project co-financing:	\$719,123
First disbursement:	August 2012	Date of financial closure:	Not closed at the time of the evaluation
No. of revisions:	4	Date of last revision:	February 2017
No. of Steering Committee meetings:		Date of last/next Steering Committee meeting:	March 2015
Mid-term Review/ Evaluation (actual date):	July 2014	Terminal Evaluation (actual date):	August 2017
Coverage (Countries):	Swaziland	Coverage - Region(s):	Southern Africa

Executive Summary

1. The Swaziland Biosafety project was implemented between May 2012 and December 2017. The UN Environment was the project implementing agency. The project was executed at the national level by the Swaziland Environment Authority. The objective of the project was to strengthen individual and institutional capacities as well as systemic structures and functions in order to implement the national biosafety framework of the Kingdom of Swaziland and fulfil its obligations as a Party to the Cartagena Protocol on Biosafety. To achieve that objective, the project focused mainly on identifying gaps in the implementation of the biosafety framework of the Kingdom of Swaziland, developing the legal and institutional framework for biosafety and developing human and institutional capacity through training and the development of regulations, creating awareness and mainstreaming biosafety into the curricula of primary, secondary and tertiary educational institutions.

2. Strategic Relevance of the Project: The precautionary adoption of Living Modified Organisms has been identified to hold great promise for agriculture by increasing crop yields in Swaziland. However, existing gaps in systemic institutional and individual capacities had to be addressed to enable Swaziland meet its obligations under the Cartagena Protocol and its national needs. For example, Swaziland lacked a single overarching programme that addressed biosafety. Therefore, there was the need to review other sectoral plans and laws in order to integrate biosafety concerns. The Swaziland biosafety project was therefore designed to create the enabling environment to harness national capacities and increase stakeholder participation in the implementation of its Biosafety Law of 2008. The project complies with GEF guidelines for financing Biosafety under the Biodiversity Focal Area, specifically strategic objective 3 and strategic programme 6 of the Biodiversity Focal Area Strategy. It is also consistent with UN Environments Strategic Framework for 2010-2013 and 2014-2017.

3. Effectiveness: In approximately 5 years of project implementation, progress on working with key partners and stakeholders for a common approach to Living Modified Organisms management has been made. Substantial effort was expended on stakeholder consultation and participation and this is reflected in work accomplished by the participating agencies.

4. At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and a legal regime for the control and management of Living Modified Organisms which promotes conformity with national guidelines and international standards has been put in place. Substantial work has been undertaken to mainstream biosafety in government agencies, universities and schools in Swaziland. Through public awareness campaigns and the production and dissemination of public information materials key stakeholder groups, in particular government agencies, now have a good understanding of the issues involved in the management of Living Modified Organisms and the need for biosafety. There is, however, more work to be done in this area. Awareness-raising is being considered as a continuing process and more awareness raising activities are planned.

5. A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation notes however that the focal point for Biosafety is located in the Ministry of Environment and Tourism while the supporting Secretariat and staff for biosafety activities is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This anomaly should be regularized.

6. Substantial capacity has been built in biosafety and biotechnology and efforts have been made to mainstream biosafety into elementary, secondary and tertiary education curricula. Basic

technological (laboratory) capacity has been built in the country for the identification of Living Modified Organisms however, there is need to provide a critical mass of trained technical capacity in the laboratory to conduct analysis of the samples.

7. Likelihood of Impact: Results from the implementation of the project show that the project has made significant progress along the causal pathway from output to impact. A significant number of outputs have been produced. With drivers in place and assumptions being met, there seems to be steady movement along the pathway towards the achievement of outcomes and ultimately to impact.

8. As stated above existing biosafety policies were reviewed and a report prepared. Swaziland's Biosafety Act was passed in 2012. Over the duration of this project draft regulations to implement the Law were developed. These regulations were discussed with parliamentarians through a number of workshops. The draft regulations were presented to stakeholders at workshops for validation and submitted to the Attorney General for action. Following the coming into force of the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety however, there is need to review and amend, if necessary, the relevant sections of the regulations to ensure they are consistent with international law. With the Biosafety Act, 2012 and its regulations in place, the project has significantly moved biosafety beyond outcomes given the fact that the project has been mainstreamed within government with capacity built and awareness created among the populace.

9. A direct outcome of the project is that awareness is created generally and modern biotechnology and biosafety are mainstreamed in programs and processes of higher learning as well as in the curricula of primary schools, high schools, and universities. Memorandums of agreement were signed with two institutions to execute this activity; one with the Chair of the Mainstreaming Environment and Sustainability in African Universities (MESA) and the other with the National Curriculum Centre. The Memorandums of Agreement with MESA Chair focused on the mainstreaming in the curricula of tertiary educational institutions in Swaziland. Courses have been developed and have been piloted in the University of Swaziland and set to be deployed in other colleges. Curriculum development in primary, secondary and high schools were being completed at the time of this evaluation. National awareness workshops were organized for specific target groups including: Agricultural Extension Officers; Farmers, Inspectors, Teachers; and in six (6) communities. The partnership forged with the media served as an important bridge between the public, scientists and regulators.

10. Simultaneously with creating knowledge and raising awareness, the project supported government institutions, NGOs, Universities, and journalists through training to develop capacity in the areas of biotechnology and biosafety. These capacity building activities involved workshops, meetings and the establishment of a Genetically Modified Organisms Detection Laboratory, among others. To ensure adequately built national capacity in the areas mentioned above, a critical mass of trained personnel is required. Therefore, there is need to replicate training activities on on-going basis in order to fully operationalize the biosafety framework that has been put in place through full implementation of the biosafety law and it's implementing regulations.

11. Efficiency: The design of this project drew largely on the terminal consultative process of earlier UN Environment –GEF Development project in Swaziland and internal expertise within the Swaziland Government with assistance and support from the UN Environment and local Non-governmental Organisations to provide efficiency and effectiveness in project execution. This biosafety capacity building project is not a new initiative. It is built on existing policy and the UN Environment–GEF Biosafety project. Therefore, the basic building blocks for this project to take off were in existence. In general, efficiencies are either built into project design or have been realised through the use of proven models which allowed the project to roll-out activities to a wider

stakeholder group, sometimes through workshops and training programmes. For example, the project organized several training courses in 2016 and 2017 using the proven concept of training of trainers on various subjects including risk analysis, Living Modified Organism detection, and diagnostics and monitoring of Living Modified Organisms introduction, inspection systems and methods. It further used existing institutions like the universities and the national Curriculum Centre to mainstream biosafety into school curricula nationwide.

12. The use of partnerships contributed to both effectiveness and efficiency. The close involvement of the relevant ministries, government departments and universities, increased efficiency as project implementation benefited from their better institutional knowledge and memory, contacts and expertise. For example, many of the consultants who conducted studies, developed curricula and undertook training came from the various university and government institutions. Trainers at the training courses in some instances came directly from government agencies and the universities. The capacity in the national university was leveraged to develop a biotechnology laboratory.

13. Inefficiencies involved slow project start-up and delays in implementation of some activities for a variety of reasons including, changes in the leadership of the program for a variety of reasons and the fragmentation in the biosafety program where the focal point for biosafety is located in the Ministry of Tourism and Environmental Affairs while project implementation is located within the Competent Authority-Swaziland Environment Authority. Underlying some of these challenges was a small staff complement at the Project Management Unit, which might have been offset through, for example, increased collaboration with other government departments. Funds may also be less of a limiting factor where resources can be, and in some cases were, amplified through increased use of partnerships. Attempts to improve efficiency involved flexibility in managing resources through rescheduling to mitigate funding challenges.

14. Project Planning and Design: In general, the project was reasonably well designed and clearly drafted. The case for the need for the project was clearly made. Relevance of the project was articulated through a discussion of the project's consistency with Convention on Biological Diversity Articles 8b and 8g and the implementation of the Cartagena Protocol on Biosafety. It was consistent with national law and policy on biosafety. The potential of Living Modified Organisms and the barriers to effective biosafety were clearly and adequately articulated in the project document. A clear description of the existing situation with respect to Living Modified Organisms was presented and opportunities and constraints to project implementation were identified and documented in the project document. The project document includes a clear description of stakeholder analysis. It provides a comprehensive listing of stakeholders and clearly describes partner competencies. There is every indication that the stakeholders identified were involved in project design through a consultative process initiated by Swaziland Environmental Authority.

15. A log-frame was developed and a narrative of the intervention logic was included in the project document. However, the description does not detail causal linkages between the various project elements. A project implementation diagram was developed and a clear description of roles and responsibilities was attached as annex 1 to the project document. The role of UN Environment was not clearly articulated.

16. The Evaluation Team observes that the project design underestimated the time frame for project execution. The time estimated was far too short to complete project activities. It is not surprising that project extensions became necessary and at the time of this evaluation almost 6 months after official project closure some activities were still in the process of being completed.

17. Project Management: UN Environment was responsible for project implementation. Its specific responsibilities were supervision, technical advisory support, management, evaluation and

reporting. The UN Environment/GEF Task Manager who was responsible for the project was apparently incredibly active in moving the project forward. This indication came from the project coordination unit and other stakeholders interviewed in-country. The project was executed at the country level by the Swaziland -National Executing Agency and Competent Authority. The Authority had a designated National Project Coordinator who was supported by an administrative and a financial assistant. The National Project Coordinator was accountable to Swaziland Environment Authority and to UN Environment for the delivery of agreed project outputs. He was responsible for overall supervision of the Project Management Unit. The Project Management Unit was responsible for monitoring the progress of project execution and communicated with the task teams routinely. The Project Management Unit developed annual work plans and plan targets were adjusted depending on the extent of progress achieved and this was done on a routine basis. Task teams comprising of participating institutions that were sub-contracted through the Project Management Unit, with sufficient specialised knowledge to ensure that project outputs are delivered on time and of the required quality, were used to execute different components of the project.

18. A Project Steering Committee was established at the national level to provide policy guidance to the project on political and administrative issues. The Project Steering Committee also, provided technical support to the project. It approved the detailed work plan developed by the project secretariat and in general oversaw the smooth running of project implementation. The Committee met each quarter to deliberate on the progress of project implementation and adjustments were made as deemed necessary. Detailed minutes of the Committee meeting were prepared and form the basis for the implementation of the decisions of the steering committee.

19. Project monitoring, reporting and evaluation: Elements of a monitoring plan were included in the project document. Indeed, a Project Benefit Monitoring and Evaluation framework was developed. Milestones seem adequate for measuring implementation progress. Project Implementation Reporting and final project reports provided for this evaluation were found to be adequate. An internal mid-term management review led by the Task Manager with the participation of the Project Steering Committee was instrumental in redirecting project activities and ensuring that outstanding activities were implemented expeditiously during the extended project duration. A substantial portion of the information used in this report on the achievement of planned project outputs was derived from these sources of information on project monitoring. Resources, allocated for reporting and, in particular, evaluation seemed adequate for undertaking the evaluation. Monitoring was not properly costed at project design. As a result of changes in project management and extensions to project duration, both the mid-term and final evaluations have been undertaken at later dates than had been anticipated.

Recommendations

20. A fully functional national biosafety framework is in place and fully integrated into the bureaucracy of the Competent Authority (Swaziland Environment Authority). This evaluation noted, however, that the focal point for Cartagena Biosafety Protocol is located in the Ministry of Environment and Tourism while the Secretariat for running the biosafety framework is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This evaluation recommends that **the Minister for Environment and Tourism should take action to bring the two functions (i.e. the focal point for Cartagena Biosafety Protocol and the under the national biosafety Secretariat) under the same umbrella.**

21. Substantial capacity is being built in biosafety and biotechnology through these efforts to mainstream biosafety into elementary, secondary and tertiary education curricula. **With Biosafety being mainstreamed into various agencies and educational institutions it is recommended that The Swaziland Environmental Authority continues to support the process of mainstreaming on an ongoing basis as part of the activities of the national biosafety framework.**

22. Basic technological capacity (in terms of laboratory equipment) has been built in the country for the identification of Living Modified Organisms. However, there is need to provide trained manpower to operate the biotechnology laboratory on ongoing basis. The evaluation recommends that an immediate priority should be **the hiring and training of a technician by the Swaziland Environment Authority to be seconded to the University laboratory to conduct analysis of the samples and assist the laboratory Director.**

23. Awareness-raising must be considered as a continuing process and more awareness raising activities will be necessary. The evaluation recommends that **the Swaziland Environment Authority must ensure that the national information portals that provide access to biosafety information (i.e. biosafety clearing houses) are fully developed and made interoperable with the Biosafety Clearing House at the Convention on Biological Diversity Secretariat in Montreal.**

24. This evaluation also reiterates the recommendation in the internal mid-term review **for the Secretariat to urgently review and revamp the Swaziland Environment Authority (SEA) website and ensure its interoperability with the Swazi Biosafety Registry and its work.** The national biosafety Secretariat (Swaziland Environment Authority) should **ensure that the national website is made interoperable with all the national nodes of the Biosafety Clearing House and that the nodes are populated on a daily basis by providing targeted training for its users and designated persons.** The Secretariat must also **intensify awareness creation in biosafety by making the website more friendly and dynamic and to incorporate social media tools such as Facebook, twitter and a "YouTube" channel for uploading audio visuals.** This could help especially capture the attention of the youth.

25. The signing of Memoranda of Agreement with all the national partners (Environmental Health (Port Health); University of Swaziland (Detection Lab); University of Swaziland (Mainstreaming in the curricula); National Curriculum Centre; Revenue Authority (Institutional); Police (Institutional); and Ministry of Agriculture and Ministry of ICT) during the project implementation serves as a good example for mainstreaming of biosafety into national systems. With the signing of Memoranda of Agreement with national partner agencies, **the evaluation recommends that the Secretariat must institutionalize a mechanism for continuous training and updating of biosafety information with the partners.**

26. The application for Field Trials before the Swazi Biosafety Registry serves as a good test of the processes of the Swazi national biosafety framework. The evaluation recommends that **in their next reporting, the Swaziland Environmental Authority should share lessons learned from the Cotton Field Trials with the Biosafety Clearing House in Montreal, for dissemination to other countries.**

27. Tracking of applications for permits is an essential component of any functional national biosafety framework. **This evaluation recommends that the Swazi Biosafety Registry develops an electronic tracking system for the office.**

28. This evaluation suggests that **in future follow-up projects a clear distinction should be made between monitoring for adaptive project management and monitoring for reporting purposes and resources allocated to both to enable adequate monitoring data collection and reporting.**

Lessons Learned

29. The partnership forged with the media served as an important bridge between the public, scientists and regulators. The media was engaged and empowered to promote biosafety awareness. **Informed media involvement enhances the quality, depth and accuracy of information in news articles and expands the range of reporting.**

30. By introducing information on Living Modified Organisms, Biosafety and Biotechnology into school curricula at all levels from primary schools through the university system, the understanding of biosafety is expected to be mainstreamed, contributing to a national system for awareness raising/education and public participation. **Mainstreaming biosafety into the curricula of educational institutions and embedding the national biosafety secretariat in the Competent Authority are innovative and constitute replicable options for other countries and in other similar projects.**

31. Information sharing by way of workshops, dissemination of information materials, etc. to parliamentarians and members of the senate has facilitated law-making in Swaziland and is worth replicating in future projects. **Engagement of a wide cross-section of stakeholders at all levels, including local communities, is important in projects in which the achievement of the expected long-term impacts is highly dependent on their actions. Further, identifying ‘champions’ among these groups of stakeholders not only contributes to successful project implementation, but also facilitates progress along the causal pathway towards global environment objectives in the post-project period.**

Summary of ratings for each criterion in the terminal evaluation of the project

Criterion	Rating
A. Strategic Relevance	Highly Satisfactory
B. Quality of Project Design	Satisfactory
C. Nature of External Context	Satisfactory
D. Effectiveness²	Satisfactory
1. Achievement of outputs	Satisfactory
2. Achievement of direct outcomes	Satisfactory
3. Likelihood of impact	Likely
E. Financial Management	Satisfactory
F. Efficiency	Satisfactory
G. Monitoring and Reporting	Satisfactory
1. Monitoring design and budgeting	Satisfactory
2. Monitoring of project implementation	Satisfactory
3. Project reporting	Satisfactory
H. Sustainability (overall)	Moderately Likely
1. Socio-political sustainability	Likely
2. Financial sustainability	Likely
3. Institutional sustainability	Moderately Likely
I. Factors Affecting Performance³	Satisfactory
1. Preparation and readiness	Satisfactory
2. Quality of project management and supervision⁴	Satisfactory
3. Stakeholders participation and cooperation	Satisfactory
4. Responsiveness to human rights and gender equity	Satisfactory
5. Country ownership and driven-ness	Satisfactory
6. Communication and public awareness	Satisfactory
Overall project rating	Satisfactory

² 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.

³ While ratings are required for each of these factors individually, they should be discussed within the Main Evaluation Report as cross-cutting issues as they relate to other criteria. Note that catalytic role, replication and scaling up are expected to be discussed under effectiveness if they are a relevant part of the TOC.

⁴ In some cases ‘project management and supervision’ will refer to the supervision and guidance provided by UNEP 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 UNEP.

1. Project Background

1.1 Context of the Project

1. Swaziland is rich in biodiversity and supports a diverse collection of habitats which are home to a wide range of organisms. Although the information base on Swaziland is still incomplete, surveys have shown that a significant portion of Southern Africa's plant and animal species are found in Swaziland. In an effort to meet its obligations under the Cartagena Protocol on Biosafety, the Kingdom of Swaziland established a National Biosafety Framework whose components are currently at varied levels of development.

2. The Biosafety Bill (2008) was intended to ensure an adequate level of protection in the field of safe transfer, handling and use of living modified organisms (LMOs) resulting from modern biotechnology, that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account human health.

3. The lack of technical capacity has however been a major hindrance to the development of biosafety and biotechnology in Swaziland. Having recognized this shortcoming in the efficient and effective implementation of the National Biosafety Framework, Swaziland embarked on a process of analysing the gap in biosafety capacity. The stock taking exercise identified core cross-cutting (systemic, institutional and individual) capacity shortcomings that limit Swaziland's ability to realize national goals and international commitment under the Cartagena Protocol.

4. The project (GEF 4077) was therefore designed to provide institutional and human technical capacity to assist the Kingdom of Swaziland to implement its National Biosafety Framework in line with its national obligations to the Cartagena Protocol on Biosafety, and the National Capacity Self-Assessment (NCSA). The project also focused on interventions leading to: the promulgation of a Biosafety Act; mainstreaming of biosafety into national policies and strategies; provision of technical guidelines and standard operating procedures; and through its training activities, built capacity on risk assessment, risk management and LMO detection.

1.2 Project objectives and components

5. This project is part of the GEF's wider effort to assist countries to implement a biosafety regulatory regime in accordance with Agenda 21 and the obligations under the Convention on Biological Diversity (CBD).

6. This global project was designed to assist Parties to the Biosafety Protocol to meet their obligations by building or strengthening the capacity needed to have an operative National Biosafety Framework (NBF) in their respective countries including Biosafety Clearing House and enabling activities such as training in risk assessment and risk management of LMOs. This will be done in collaboration with other relevant government sectors, NGOs, private sector, academic and research institutions and Civil Society Organizations (CSOs).

7. The **overall goal** of the project is to facilitate Swaziland's compliance with and the implementation of the Cartagena Protocol on Biosafety (CPB) through the building of specific biosafety capacities as per identified stakeholder needs in order to empower Swaziland to effectively and efficiently implement its National Biosafety System (NBF).

8. The **development objective** of the project is to assist the Kingdom of Swaziland to implement its national biosafety framework and to fulfil its obligations as a Party to the

Cartagena Protocol on Biosafety, by strengthening the individual, institutional as well as the systemic structure, functions and capacities. The project was therefore based on the need to mainstream the CPB objectives into the National Biosafety Framework and on the need to strengthen capacity for the implementation of the NBF. The project activities are categorized under five components, with corresponding outputs and expected outcomes, as shown in Table 3 below:

Table 1: Projects components and outcomes– Swaziland

Project Component	Outputs	Expected Outcomes
Component 1: Gap Analysis and strengthening of Regulatory Regime	<ul style="list-style-type: none"> • Sensitize Assembly/Senate on Biosafety bill • Review policies to be in line with the new bill • Drafting of regulations Project • Publicize Regulations • Study on Liability and Redress issues • National Consultation on Biosafety Implementation • Sensitize parliamentarians in readiness for the debate of the regulations 	A policy and regulatory framework on biosafety in place and consistent with the CPB and other domestic and relevant biosafety international instruments Policy and sectoral plans on biodiversity and sustainable development
Component 2: Develop a fully functional administrative system of handling LMOs	<ul style="list-style-type: none"> • Develop Biosafety Strategy and Action Plan • Appoint the Biosafety Registrar • Develop Administrative Guidelines • Design a Quality Management Plan • Capacity Building, Risk Analysis and Evaluation • Validation of Administrative Biosafety Systems • Cost/Benefit Analysis on LMO's • Identify areas where guidelines need to be developed 	Mechanisms for managing risk associated with handling, transport, use, and transfer of LMOs established
Component 3: Establish and capacitate an inspection, monitoring and enforcement system	<ul style="list-style-type: none"> • Train Inspectors on Monitoring & Enforcement • Validation of LMO's procedures • Develop Guidelines and procedures on GMO testing • Equip and train Laboratory and Staff • Laboratory Efficiency Testing • Establish a GMO threshold in Swaziland 	A system of Monitoring and Enforcement in place, including monitoring of socio-economic impacts in conformity with the national priorities on environment
Component 4: Establishment of system for public awareness and participation in decision making and further facilitate access to information	<ul style="list-style-type: none"> • Establish Public Consultation Procedures • Establish Partnerships with relevant Stakeholders • Review Educational Framework • Produce and publish Awareness materials • Carry out awareness campaigns • Establish Information exchange and collaboration systems 	Public Awareness and Education system with clearly defined entry points for public participation in decision making established.

Project Component	Outputs	Expected Outcomes
	<ul style="list-style-type: none"> • Develop a Biosafety Public Awareness Strategy 	
Component 5: Establishment of a Monitoring and Evaluation for project delivery	<ul style="list-style-type: none"> • Annual planning and review meetings • Mid-term and Terminal Evaluation • Annual Financial Audit Reports • Capturing Lessons Learnt • Project Management • Set up the Biosafety Office • Develop a Funding Resource Plan 	Checks and balances built into the implementation of the project to assess impacts and mitigate risks

1.3 Target areas/groups /Stakeholders

9. Key stakeholders in the Swaziland Biosafety Capacity Building project are mainly government ministries, universities, research organizations, civil society groups, Farmers and NGOs. Key Government Ministries and Departments considered the primary stakeholders in biotechnology and biosafety include: Ministry of Agriculture (MOA); Ministry of Tourism and Environmental Affairs (MTEA); Ministry of Health and Social Welfare (MHSW); Ministry of Education; National Disaster Management Agency (NDMA); Department of Customs and Excise; Ministry of Foreign Affairs (MFA), Ministry of Commerce, Industry and Trade (MCIT) and the Ministry of Justice and Constitutional Affairs were involved in project implementation by making strategic policy decisions through participation in the Project Steering Committee. The Key government ministries were also involved in training activities, inspections, awareness raising, mainstreaming modern biotechnology and biosafety, drafting of new regulations and serving as resource persons to assess the socio-economic impact of IAS and LMOs.

10. At the operational level, agricultural extension officers, customs Officials, health Officers and immigration Officers served as both resource Officers and participants at workshops, monitoring of post releases of LMOs and participated in outreach and communication activities.

11. The Universities and research institutions provided experts to conduct Cost Benefit Analysis of LMO introduction, prepare risk analysis and conduct training to develop risk assessment capacity, conduct baseline surveys, equipped the biosafety laboratory and trained laboratory staff and mainstream Biosafety and Biotechnology into the curricula of educational institutions from the primary to the tertiary levels.

12. The Swaziland Cotton Board, a private sector institution, participated in training on risk assessments of LMOs as prospective applicants for LMO introduction into the country.

1.4 Project Implementation Structure and Partners

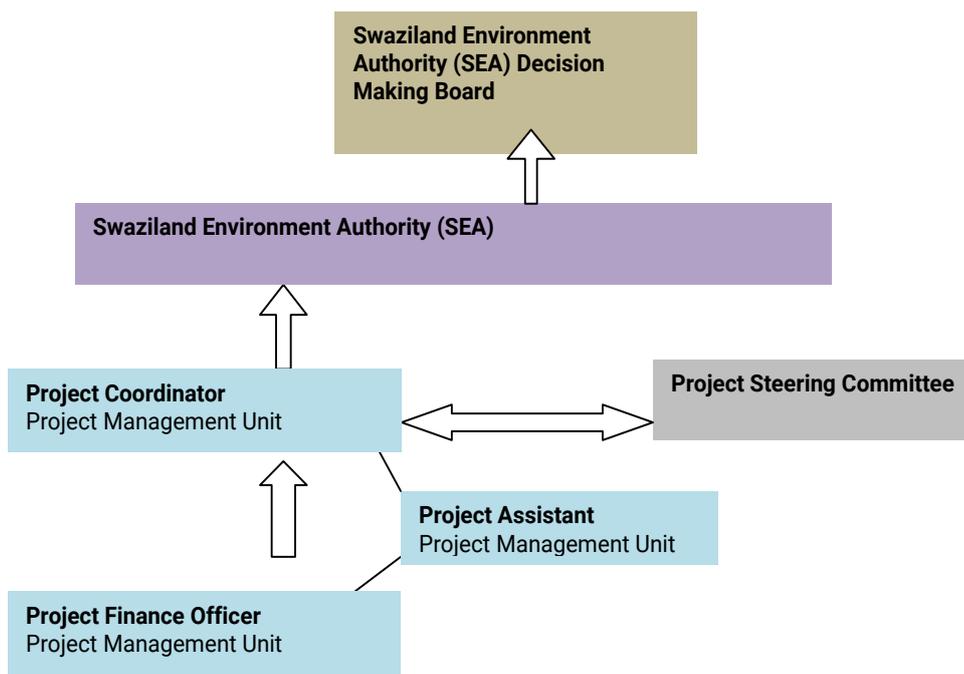
13. The project was implemented by UN Environment (Implementing Agency). The UN Environment Division of Environmental Policy Implementation had specific responsibility for project implementation in the supervision, evaluation, technical advisory support and management and reporting. The project was executed at the country level by the Swaziland Environmental Authority (SEA) – the National Executing Agency (NEA). SEA had a designated National Project Coordinator who was supported by an administrative and a financial assistant. The National Project Coordinator was accountable to SEA and to UN Environment for the delivery of agreed project outputs. He was supported by financial and administrative functions

which together formed the Project Management Unit (PMU) responsible for the day to day running of the project.

14. The Project Management Unit was responsible for providing the necessary scientific, technical, financial and administrative support to the work of the Project Steering Committee (PSC). The Unit worked in close collaboration with the National Biosafety Advisory Committee and the relevant government agencies, universities and research institutions and the private sector. A National Biosafety Advisory Committee (NBAC) is responsible for conducting risk assessment, reviewing risk management measures, developing guidelines for the safe transport, confined trials and commercial release of LMOs in line with accepted international standards and to provide expert advice to the Competent Authority. A National Biosafety Registry, headed by a Biosafety Registrar, was set up to receive, screen for completeness and forward applications to the National Biosafety Advisory Committee and issue permits prescribed by the Environment Management Act (2000).

15. The Project Steering Committee (PSC) was responsible for interagency coordination and for mobilizing the necessary expertise for the proper execution of project activities. It provided the overall policy advice for the implementation of the national project, ensured that the results of the project were brought to the attention of national and local authorities. The committee also ensured effective communication and decision making between the National Project Coordinator and other stakeholders. It approved the detailed work plan and budget produced by the National Project Coordinator and ensured adequate monitoring and reporting on project activities. The PSC also provided technical support to the Task Teams. The Committee which met on a quarterly basis was comprised of representatives from the Ministry of Agriculture and Cooperatives (MOAC); Ministry of Environment, Tourism and Communication (MTEC); Ministry of Health and Social Welfare (MHSW); Ministry of Education; National Disaster Task Force (NDTF); Department of Customs and Excise; Ministry of Foreign Affairs and Trade (MFAT) and the Ministry of Justice and Constitutional Affairs, and Swaziland Environment Authority. The decision-making system for the project is presented below in Figure 1 below.

Figure 1: Swaziland Capacity Building Decision Making System (source: Project Document)



1.5 Milestones and changes in project design and implementation

16. The Capacity Building for the Implementation of the National Biosafety Framework project number GLF/5060-2716-4C49 was initially designed for implementation within 48 months from May 2012 to April 2016. The project was approved by the GEF in March 2012 and a project co-operation agreement was signed between the UN Environment and the Kingdom of Swaziland in June 2012. As implemented, the project started in June 2012 with an end date of June 2017 an extension of one year duration. Five revisions to the project were made and an extension granted to enable the project complete the implementation of activities.

17. While the focus of some activities such as training and the mainstreaming of Biosafety and Biotechnology were intensified, the project was essentially implemented as designed. The project officially came to an end in June of 2017 after a year of extension.

1.6 Project Budget

18. The project falls into the medium-size project (MSP) category. The overall project budget was US\$ 1,570,000 of which US\$ 770,000 was received from GEF financing and US\$ 800,000 was to be provided through in-kind co-financing by the Government of Swaziland - amounting to 51% of the total project cost.

19. This project is part of the wider effort of the GEF to support Parties to the Cartagena Protocol on Biosafety to put in place a regulatory framework for Biosafety in line with obligations to the Cartagena Protocol on Biosafety. Most notably, resources from GEF will build on the limited capacity developed through the GEF enabling activities on the “Development of a National Biosafety Framework for Swaziland” and the BCH Project and government resources. The total cost of the project and sources are summarized in table 2 below.

Table 2: Estimated project cost in Swaziland (USD)

Financing Source	Amount (USD)
GEF Trust Fund	770,000
Co-financing (National counterpart funding)	800,000
Total	1,570,000

1.7 Project Theory of Change

20. An explicit Theory of Change (TOC) to monitor progress towards results was not required at the time of the development of the project and none was developed. For the purpose of this evaluation, a Theory of Change has been reconstructed in order to gain a better understanding of the conceptual thinking behind project design and to assist with the assessment of project effectiveness and likelihood of impact, sustainability and up-scaling. The reconstructed Theory of Change of the project seeks to define:

- nature and scope of the changes to which the project is expected to contribute;
- cause-effect relationships between outputs delivered by the project and expected higher-level changes (also called results chains or causal pathways);

- external factors and conditions that would allow the project to achieve the expected higher-level changes. These are considered in two groups: assumptions are external conditions over which the project has no influence or control; drivers are external factors that the project can influence with specific activities or outputs; and
- role of key stakeholders in making those changes happen.

21. The reconstructed Theory of Change (Figure 2) enhances our common understanding of the underlying programme logic. It depicts what and how the project was planned, and results achieved and maps out the underlying intervention logic, identifying key **drivers** of impact and the underlying **assumptions**.

22. The reconstructed Theory of Change of the project is based on the actual results statements in the project document which have been “broken up” or consolidated and re-arranged to better conform to UN Environment definitions of the different results levels⁵ and to show the theoretical cause-effect relationships.

23. The Swaziland TOC shows how the project focuses on developing legal and administrative capacity for a functional national biosafety framework as well as technical capacity for monitoring LMOs and a national system for awareness raising and public education to enable the country conserve and protect its biodiversity. These are the direct outcomes expected against which project effectiveness was assessed.

24. Direct outcomes are expected to be achieved through a diverse set of outputs, as in the TOC diagram, presented at the bottom and grouped along the direct outcomes they are expected to contribute to. For example, enacted laws and gazetted regulations will result in a conducive policy environment and a regulatory regime where legislators, public officials and the general public are aware or well trained. A well-informed public on the laws and regulations as well as LMOs should facilitate, among other things, the transition to an intermediate state where a functional biosafety system is established in Swaziland. This was expected to be facilitated by education and awareness campaigns and a well-informed media. By introducing information on LMOs, Biosafety and Biotechnology into school curricula at all levels from primary schools through the university system the understanding of biosafety was expected to be mainstreamed contributing to a national System for awareness raising/education and public participation. An informed media, civil society organizations and the general public will contribute to a functional biosafety system and Swaziland’s transition to effective biodiversity conservation. In addition, a risk assessment strategy and well trained and competent Risk Assessors should provide the technical capacity for monitoring and enforcement of LMO introduction into the country. With adequate government support, effective monitoring and enforcement would contribute to transitioning to the intermediate state of developing a functional biosafety system in Swaziland. Of course, all these are expected to occur in an environment where the management of LMOs can be undertaken through a rational and transparent science-based process.

25. Firm evidence of achievement of direct outcomes might be scarce in some cases. In such cases, the evaluation of effectiveness will partly rely on an assessment of the relevance, quality and timeliness of outputs delivered by the project.

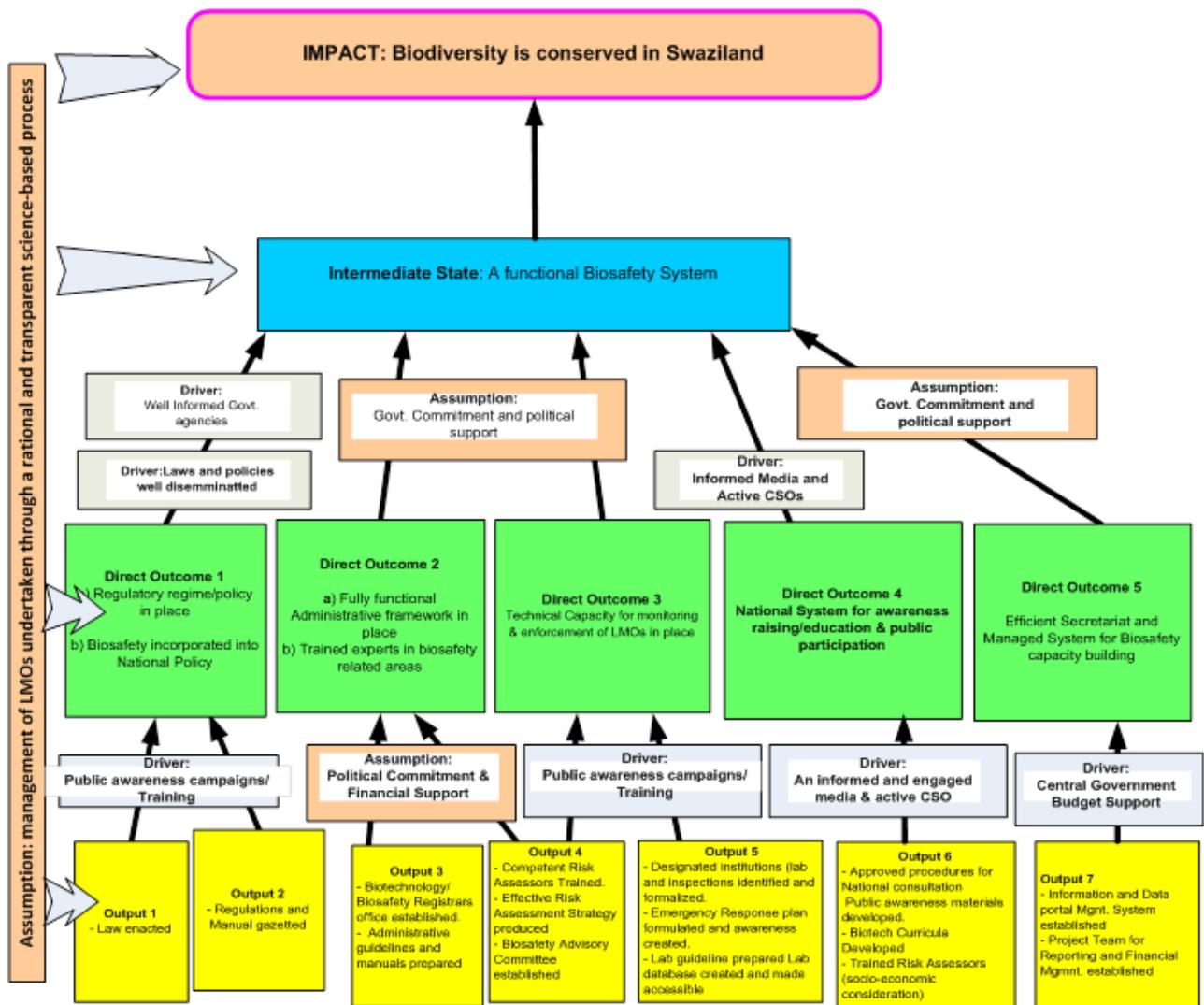
⁵ UNEP Programme Manual – November 2012 version. **Outputs** are defined as products and services which result from the completion of activities within an intervention. **Outcomes** are intended or achieved short-term and medium-term effects of an intervention’s outputs, usually requiring the collective effort of partners. Outcomes represent changes which occur between the completion of outputs and the achievement of impact. Outcomes could be a change in capacity (immediate outcome) or behaviour (medium-term outcome). **Impact** is defined as positive and negative, primary and secondary, lasting and significant effects contributed to by an intervention. In UNEP, these effects usually concern the environment, and how it affects human life and livelihoods

26. The project objective is to enable Swaziland to develop a functional national biosafety framework and also meet its international obligations to the Cartagena Protocol on Biosafety. Enhanced capacity to implement the Biosafety Act will result from the enhanced capacities achieved at the direct outcome level including the development of regulatory and policy regimes, technical capacity, awareness and information and enhanced administrative capacity. Our review shows that the project objective is actually set at the intermediate level in the pathway from outputs towards impact. Indeed, at the impact level, the project is expected to result in the conservation of biodiversity in Swaziland. This is reflected in the reconstructed theory of change.

27. The factors (drivers) required to transform outputs and outcomes along the causal pathway to impact include: well informed government agencies; laws and policies well disseminated to all stakeholders and the general public; well informed media to disseminate information about LMOs, active CSOs including farmers, and consistent central government budget support. Key and perhaps the most important assumptions are government commitment and political support. Another assumption is that management of LMOs can be undertaken through a rational and transparent science-based process.

28. The evaluation assesses the likelihood that the project contributes to the desired impact, by combining evidence about project effectiveness (i.e. contribution to direct outcomes), progress on the project objective (i.e. the intermediate state towards impact) and validity of assumptions and presence of drivers. The latter also provided the basis for assessing the likelihood of sustainability and up-scaling of project achievements.

Figure1: Reconstructed Theory of Change



2. The Evaluation

2.1 Purpose of the Evaluation

29. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment, The GEF and the GEF Partners, the National Executing Agencies and other national partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation especially for the second phase of the project, if applicable.

2.2 Key Evaluation Questions

30. The key questions to be addressed by the evaluation as stated in the Terms of Reference are the following:

- To what extent was the project able to assist Swaziland to establish and consolidate a fully functional and efficient regulatory regime that responds to their obligations under the Cartagena Protocol on Biodiversity, as well as their national needs for a viable National Biosafety Framework?
- To what extent was the project able to develop both institutional and capacity and participation in Living Modified Organisms (LMO) risk assessment, evaluation and management to ensure that biosafety becomes part of their permanent action?
- To what extent was the project able to assist in the development of an information sharing system and public awareness mechanism?
- To what extent was the project able to assist Swaziland in establishing and consolidating a functional national monitoring system for LMOs and their possible effects on the environment?
- To what extent are outcome indicators verifiable, and record progresses towards their target values?

2.3 Proposed Approach and Methods

31. This section discusses the methods used for data collection in response to the objectives, key questions and indicators. The evaluation was an in-depth, independent exercise conducted with oversight from the UN Environment Evaluation Office and according to the following principles to ensure a fair evaluation:

32. *Focus on results:* Expected results, performance indicators, as well as potential risks were identified to ensure coherent and integrated results-based management (RBM) to frame the evaluation.

33. *Learning:* The Evaluation Team adapted RBM principles, tools and indicators (i.e. the evaluation matrix), based on the needs and context of this evaluation, with the aim of increasing the potential for learning and focus on the achievements of the Biosafety Capacity Building Projects in Swaziland.

34. *Participatory approach:* The evaluation process ensured a consultative and collaborative approach with the UN Environment staff members - Project Coordinator, Programme/project

managers, and the Office for Operations (OfO) - and other relevant internal and external stakeholders who were kept informed and regularly consulted throughout the assessment.

35. *Evidence-based:* The evaluation aimed at gaining insights and conclusion based on a variety of data and data collection methods, and, wherever possible, triangulating information in order to ensure the reliability and validity of evaluation analysis and conclusions.

2.3.1 Timeframe, data collection and limitations of the evaluation

36. Both primary and secondary data were collected and analysed for this evaluation. Secondary data were obtained mainly from the UN Environment Evaluation Office, Division of Environmental Policy Implementation, as well as relevant partners and other organizations. Primary data were gathered through qualitative and quantitative methods, including desk reviews and semi-structured interviews. Findings from the inception review further informed the methods used for this evaluation and informed refinement of the evaluation framework by filling information gaps and helping to identify further data collection needs. The list of project documents reviewed by the consultants is contained in Annex 1.0.

37. Interviews: A limited number of phone and personal interviews were conducted with UN Environment staff and managers during the inception phase to help orient the Evaluation Team and inform the development of the Inception Report. Interviews conducted during the data collection phase were primarily semi-structured, based on the evaluation matrix presented in the inception report, and were conducted with project stakeholders including HQ staff. Interviewees included: UN Environment Nairobi office staff and managers, cooperating partners in other UN and non-UN institutions, national and local government administrations involved in project implementation (Ministries of the Environment), CSOs, NGOs, bilateral organizations, regional and local institutions, research centres, and other key informants as relevant. A detailed list of interviewees is included in annex 2 to this report. In particular, key staff in the agencies in the table (3) below was interviewed.

Table 3: Key Agencies Interviewed

Institution & Staff	Location
UN Environment Fund Management Officer	Nairobi
UNUN Environment Project Manager and key staff in the project management team	Nairobi
Swaziland Environmental Authority	Mbabane
Selected representatives from among the project partners Department of Agriculture Ministry of Environment, Tourism and Communications Ministry of Education Ministry of Forestry and Wildlife Ministry of Fisheries and Animal Industries Ministry of Health and Social Welfare	Mbabane, Swaziland
University of Swaziland	Kwaluseni, Swaziland
Representatives of NGOs and CSO	Mbabane, Swaziland

38. The evaluation was conducted by a team of two consultants between December 2017 and February 2018. An inception visit was undertaken to the UN Environment HQ in Nairobi to allow for face-to-face meetings with members of the project team and Nairobi HQ. These visits provided the opportunity for the evaluation team to gain a better understanding of the project

and the current status of its implementation. It also allowed the evaluation team to collect data and set up the modalities for accessing project information in Anubis, the global project information sharing facility. The field visit to the project country again enhanced the understanding of the evaluation team of the strengths and weaknesses of the project with regards to country/local situation and context, and how beneficiaries and other key stakeholders perceive project effectiveness, sustainability and impact. The field visit also helped the Evaluation Team to assess limitations and opportunities presented by implementation challenges, address cross-cutting issues (such as gender), and identify possible areas and means for programme improvements.

39. The evaluation team undertook a field visit to Swaziland where face-to-face meetings took place with members of the project team. Semi-structured interviews were organized with project staff and stakeholders including, NGOs, CSOs, Universities and other primary executing or otherwise affected entities in order to capture their views and perspectives regarding the project's relevance and performance at the local level.

40. The Mid-term Review (MTR), which was conducted in 2015, made a number of recommendations that helped to greatly improve project performance. Information in the review is taken into account in the Terminal Evaluation (TE) report where relevant, but the TE focuses on the performance and achievements of the project in the period before and following the MTR. The evaluation timeline and itinerary are provided in Annex 3. In terms of limitations, the Terminal Evaluation was undertaken about 6 months following official project completion. At this time, a number of the key planned project activities had been completed.

3. Evaluation Findings

3.1 Strategic Relevance

41. A stock taking exercise which was conducted during the earlier phase of the Biosafety Programme found systemic institutional and individual capacity gaps which needed to be filled to enable Swaziland fulfil its obligations under the Cartagena Protocol and meet its national needs. For example, Swaziland did not have a single overarching programme that addressed Biosafety and there was need to review other sectoral plans and laws in order to integrate Biosafety concerns. The project was therefore designed to create the enabling environment to harness national capacity and increase stakeholder participation in the implementation of its Biosafety law of 2012. This project is follow-on to the earlier projects on National Capacity Assessment for the implementation of Swaziland's Biosafety framework. It is consistent with Swaziland's National Biodiversity Strategy and Action Plan that expresses the need to identify and minimize risks associated with the use of LMOs in Swaziland.

42. The project complies with the GEF Strategy for financing of Biosafety specifically under strategic objective 3 and strategic programme 6 of the Biodiversity Focal Area Strategy. GEF 5 strategy for the Biodiversity Focal Area has as its objective the building of capacity for the implementation of the Cartagena Protocol on Biosafety (CPB). The Swaziland project is therefore consistent with the strategic priorities of the GEF.

43. The project is also consistent with UN Environment's Medium Term Strategy of 2010-13 and 2014-2017 under the Ecosystems Management subprogram. The project was aligned with the UNEP Biennial Programme of Work (PoW) 2010-2011: Sub-Programme Environmental Governance with Expected Accomplishment (EA) B: The capacity of States to implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions is enhanced with Output 2: Legal and policy instruments are developed and applied to achieve synergy between national and international environment and development goals; and Output 3: Countries' legislative and judicial capacity to implement their international environmental obligations is enhanced through implementation of policy tools. While this alignment is verifiable, the Global Environment Facility projects had not been fully integrated into the UNEP Programme of work at the time the project was designed and therefore little evidence of Biosafety activities is found in the MTS. The biennial PoW for 2012-2013 however shows Biosafety as a programme framework under the Environmental Governance sub-programme.

3.2 Effectiveness.

44. Five key outcomes were expected in the Swaziland Capacity Building project. They are: an established regulatory regime consistent with the CPB and other domestic and international instruments; strengthened system for public awareness on the safe use and handling of LMOs; a workable, effective monitoring and enforcement of LMOs system in place and in harmony with other national monitoring and enforcement laws; and procedures and a fully functional effective and efficient administrative framework to catalyze the mainstreaming of biosafety into national systems is in place and a mechanism for information sharing and public awareness.

45. With regards to the establishment of a regulatory regime all outputs including draft regulations, sensitization of parliamentarians on biosafety, study on liability and redress, enacted legislation, pre and post COP/MOP workshops and reviewed draft regulations were successfully produced. The regulations were yet to be gazetted at the time of the evaluation.

46. To strengthen the system for public awareness on the safe use and handling of LMOs, an established fully functional system of national consultation on biosafety issues as well as a strengthened system for public participation in Decision making on LMOs on the safe use and handling of LMOs are in place. Also a fully functional and strengthened access to, and management of information has been successfully established through the creation of information portals designed to communicate with the global data portal in Montreal.

47. A workable, effective monitoring and enforcement of LMOs system has been established in harmony with other national monitoring and enforcement laws and procedures by equipping a biosafety laboratory and training staff, developing guidelines and procedures on GMO testing, developing and validating emergency response plans and establishing a GMO Threshold. Manuals for inspectors have also been developed. While a significant amount of work has been undertaken, some work still needed to be done on training inspectors on monitoring and enforcement, validation of LMO procedures and Lab efficiency testing. Indeed, these are on-going processes. For the most part, however outputs produced under this outcome have largely been completed.

48. Public education and the creation of public awareness to promote public participation and enhance decisions making process through the active participation by the informed stakeholders in the decision making on LMOs was achieved through the establishment of public consultation procedures, review of educational framework, awareness campaigns, partnerships and collaborative networks information exchange and collaboration among & between institutions. A biosafety awareness strategy was developed, and public awareness materials have been successfully produced and distributed.

49. To establish a fully functional effective and efficient administrative framework that catalyzes the mainstreaming of biosafety into national systems the project successfully developed a Biosafety Strategy based on identified needs and gaps. This was approved and implemented by Government. A fully functional and validated administrative system for handling requests for LMOs including a system for handling applications, storing information and controlling of biosafety applications has been put in place.

50. A risk assessment and decision-making systems has been established. However, more training is required to make it fully functional. A Socio-economic Considerations study has also been undertaken to provide a good understanding of the GMOs are introduced in Swaziland.

3.2.1 Delivery of Outputs

51. Evaluation of the delivery of results at the output level is based on the log frame and the reconstructed theory of change developed for this project. A review of the log frame clearly shows that all activities and outputs were necessary and appropriate, and taken together, formed series of logical, sequential steps which will potentially lead to the achievement of the project outcomes and objectives. Information for the evaluation of outputs was derived from final project reporting. While using information from the final project reports amounts to dependence on self-reported data, many of these outputs were verified and confirmed through field observation and interviews at the country level.

52. The evaluation finds that, at the time the project officially came to an end, many of the outputs had been developed; the remaining outputs being the regulations to implement the Biosafety law currently pending before the Attorney General's Chambers was in the process of being gazetted. Table 4 below presents a summary of the planned outputs and what was actually produced at the end of the project.

Table 4: Project Output Summary

Expected Outcomes	Planned Outputs	Actual Outputs	Links
<p>Outcome 1:</p> <p>Establishment of a regulatory regime consistent with the CPB and other domestic and international instruments</p>	<p>Establishment of a regulatory regime consistent with the CPB and other domestic and international instruments</p>	<p>Proceeding for sensitization meetings with Policy Makers</p> <p>Proceedings for stakeholder workshops</p> <p>Enactment of the Biosafety Act, 2012</p> <p>Workshop proceeding for the Pre-COP/MOP and Post COP/MOP Stakeholder Workshops</p> <p>Development of the “Draft Biosafety Regulations”</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
	<p>Accurate information on how Biosafety can be harmonized with National Laws, policies and plans , and built into existing</p> <p>Monitoring and Enforcement systems</p>	<p>Workshops with Biosafety Stakeholders</p> <p>Produced the Baseline Study for Biosafety in Swaziland</p> <p>A study on the “Liability and Redress Regime for Biosafety Issues in the Context of the CPB and the Biosafety Act, 2012 and Swaziland Existing Liability and Redress Regimes”</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
	<p>Accurate Regulations, approved, gazetted and adopted and are consistent</p> <p>with national systems</p>	<p>Stakeholder workshops to validate the Draft Regulations</p> <p>Proceeding for sensitization meetings with Policy Makers</p> <p>The Draft Biosafety Regulations were reviewed and aligned with the Amendment Bill and re-submitted to the Attorney General’s Chambers</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
<p>Outcome 2:</p> <p>A fully functional effective and efficient administrative framework catalyzing</p> <p>the mainstreaming of biosafety into national systems in place</p>	<p>Biosafety Strategy based on identified needs and gaps developed, approved and implemented by Government</p>	<p>Development and validation of the “National Biosafety Strategy and Action Plan”</p> <p>Stakeholder workshop reports and proceedings</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
	<p>A fully functional administrative office for handling requests for LMOs</p>	<p>Development and validation of the “Biosafety Administrative Guidelines”,</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p>
	<p>A fully functional and validated administrative system for handling requests for LMOs</p>	<p>Functional Biosafety Registrar’s Office</p> <p>Validation of the “Biosafety Administrative Guidelines” by the National Biosafety Advisory Committee (NBAC)</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p>

Expected Outcomes	Planned Outputs	Actual Outputs	Links
		<p>Training of the Biosafety Registrar, NBAC, PSC and prospective applicants on "Risk Assessment of GMOs"</p> <p>Development of the training material for the risk assessment workshop</p>	<p>https://anubis.UNEnvironment.org/projects/1207</p>
	<p>An efficient system for handling applications, storing information and controlling of biosafety applications in place</p>	<p>Developed Biosafety Administrative Guidelines</p> <p>Mock practice by the NBAC after a review of a cotton CFT application</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
	<p>A fully functional risk assessment and decision-making systems in place</p>	<p>Training workshop proceedings of three capacity building exercises for the NBAC and other Biosafety Committees on the risk assessment of GMOs in Swaziland</p> <p>Development of Biosafety Best Practices</p> <p>Development of quality management practices</p>	
	<p>A full understanding of the Swaziland Socio-economic Considerations backed by data from a study of these in Swaziland</p>	<p>A study on "Ex-ante Cost/Benefit of GMOs and the Socio-economic Implications in Swaziland" was conducted</p> <p>Workshop proceedings for training workshops</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
<p>Outcome 3:</p> <p>A workable, effective monitoring and enforcement of LMOs system in place and in harmony with other national monitoring and enforcement laws and procedures</p>	<p>A fully functional inspection and monitoring office in place</p>	<p>A Memorandum of Understanding was signed with the following inspectorate institutions</p> <p>Ministry of Health</p> <p>Swaziland Revenue Authority</p> <p>Police</p> <p>A series of workshops were done to capacitate the Inspectors</p> <p>Inspectors were trained on using GMO Spot Kits</p>	
	<p>Emergency procedures produced and validated</p>	<p>Development and stakeholder validation of the "Emergency Response Procedures for Disasters Involving GMOs in Swaziland"</p> <p>Stakeholder capacitation workshops</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>

Expected Outcomes	Planned Outputs	Actual Outputs	Links
	A fully functional inspection and monitoring system in place	<p>Identifying and designation of the Biosafety Inspectors as per the dictated of the Biosafety Act 2012 and the Environment Management Act, 2002</p> <p>Development of the “Biosafety Inspector’s Manual”</p> <p>Training of the Inspectors on how to use the Inspector’s Manual</p> <p>Regular capacity building workshops for the Inspectors</p> <p>A designated GMO detection laboratory in place at UNISWA</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
	Strengthened UNISWA laboratories able to efficiently detect LMOs	<p>Signing of the MoU with UNISWA to equip the laboratory and train the designated university staff on GMO detection</p> <p>Also signed an “MoA for the provision of Laboratory Supplies and Consumables”</p> <p>Equipping of the laboratory (the list of equipment is listed inventory list in Anubis)</p> <p>Engagement of a consultant to conduct a proficiency testing of the laboratory and to train the laboratory staff on GMO detection</p> <p>Development of the GMO Detection Manual, Guidelines and SOPs for the laboratory</p> <p>Conduct of a Baseline survey on the current status of GMO contamination in the country (ongoing)</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p> <p>https://anubis.UNEnvironment.org/projects/1207</p>
<p>Outcome 4:</p> <p>A workable and effective national system for public awareness, education and participation in decision making for LMOs in place in support of Swaziland’s good governance policies</p>	An established fully functional system of national consultation on biosafety issues	<p>Development of the “Public Awareness Strategy and Action Plan”</p> <p>Proceedings for stakeholder validation workshops</p> <p>Implementation of the Strategy document</p>	
	Strengthened system for public awareness on the safe use and handling of LMOs	<p>Training materials have been produced and includes:</p> <p>Training manuals</p> <p>Posters</p> <p>Brochures</p> <p>Lanyards</p> <p>Mainstreaming of Modern</p>	<p>http://www.sea.org.sz/biosafety/index.php/documents/</p>

Expected Outcomes	Planned Outputs	Actual Outputs	Links
		<p>Biotechnology and Biosafety in the curriculum</p> <p>National awareness workshops conducted for specific target groups including:</p> <p>Agric. Extension Officers</p> <p>Farmers</p> <p>Inspectors</p> <p>Teachers</p> <p>6 Communities</p> <p>A National Schools' Competition on Biosafety was done for 2 consecutive years</p>	https://anubis.UNEnvironment.org/projects/1207
	Strengthened system for public participation in Decision making on LMOs on the safe use and handling of LMOs	<p>Established entry points for public participation in decision making on GMOs</p> <p>Workshops for specific groups on the decision making process in the country.</p>	
	Fully functional and strengthened access to and management of information	<p>Establishment of the National Biosafety Clearing House (www.sea.org.sz/biosafety)</p> <p>Stakeholder workshops on how to access information on the nBCH and the global BCH (bch.cbd.int)</p>	
Outcome 5: A transparently implemented and well monitored project on biosafety capacity building	Participatory produced annual work plans	<p>Well-coordinated Project Team with specific roles in implementing the work-plan and updating it as and when needed</p> <p>Regular PSC Meeting Minutes</p>	https://anubis.UNEnvironment.org/projects/1207
	Monitoring and evaluation carried out continuously, with specific missions to be carried out midterm and at terminal of the project	<p>Regular reports submitted on Anubis</p> <p>Unqualified audit reports produced</p>	https://anubis.UNEnvironment.org/projects/1207
Outcome 6: A well-managed and administered project	A management system set up to administer project	Timely Periodic Progress and Expenditure Reports	https://anubis.UNEnvironment.org/projects/1207

Source: Adapted from Final Project Reporting, 2017

3.2.2 Achievement of Direct Outcomes

53. The overall goal of the project is to facilitate Swaziland's compliance with and the implementation of the Cartagena Protocol on Biosafety through the building of specific biosafety capacities as per identified stakeholder needs in order to empower Swaziland to effectively and efficiently implement its National Biosafety Framework (NBF). This was to be accomplished by strengthening the individual, institutional as well as systemic structures, functions and capacities. The project was therefore based on the need to mainstream the CPB objectives into the National Biosafety Frameworks and on the need to strengthen the capacity for the implementation of the NBF. Specifically, the goal of the project was achieved through a combination of legal, policy and other normative interventions including the review of policy, development of regulations based on an existing legal regime, and other interventions such as education and awareness campaigns, mainstreaming biosafety into school curricula, development of manuals, workshops, clearing houses, and other forms of technical capacity building. In approximately 5 years of project implementation the following direct outcomes have been achieved.

Direct Outcome 1: Establishment of a regulatory regime consistent with the CPB and other domestic and international instruments

54. There existed a biotechnology and biosafety policy in the country prior to the initiation of this project. This policy was based on the precautionary approach. In this project, a review was conducted of the existing policy to ensure that it was still consistent with national and international law. Swaziland's Biosafety Act was passed in 2012. Following its passage, the project assisted with the development of the Draft Regulations to implement the Law. These regulations were discussed with Parliamentarians at a number of workshops, presented to stakeholders and subsequently submitted to the Attorney General for action. Existing policies related to biosafety were reviewed and a report prepared. Stakeholder workshops to validate the Draft Regulations were conducted. The Draft Biosafety Regulations were reviewed and aligned with the Amendment Bill and re-submitted to the Attorney General's Chambers. With the coming into force of the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, there is need for Swaziland to revisit both the Biosafety legislation and the draft regulations and based on the study conducted to amend the relevant sections of the legal instruments as deemed appropriate. At the time of the evaluation the Regulations had not been gazetted.

Accurate information on how Biosafety can be harmonized with National Laws, policies and plans, and built into existing Monitoring and Enforcement systems

55. In a bid to provide accurate information on national laws, policies and plans, the project has produced a Baseline Study for Biosafety in Swaziland. In addition, a study on the "Liability and Redress Regime for Biosafety Issues in the Context of the CPB and the Biosafety Act, 2012 and Swaziland existing Liability and Redress Regimes" was also conducted. Information sessions were organized for portfolio members of the Parliament and the Senate from the Ministry of Tourism and Environmental Affairs as well as the Ministry of Agriculture. This was aimed at providing these members a greater understanding of the pertinent issues in the Biosafety regulations prior to its discussion in the legislature.

Regulations approved, Gazetted and Adopted.

56. Stakeholder workshops were organized in 2016 to validate the Draft Regulations. Following the workshops, sensitization meetings were organized to provide policy makers a greater understanding of the pertinent issues in the draft regulations. The Draft Biosafety

Regulations were reviewed and aligned with the Amendment Bill and re-submitted to the Attorney General's Chambers. It is clear, however, that following the coming into force of the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety of the Biosafety Protocol, there is need to amend the relevant sections of the regulations to ensure they are consistent with international law. At the time of this evaluation the regulations had not been gazetted.

Direct Outcome 2: A fully functional effective and efficient administrative framework catalysing the mainstreaming of biosafety into national systems in place

A fully functional administrative office for handling requests for LMOs

57. The project developed and validated the “Biosafety Administrative Guidelines” and established a functional National Biosafety Registry, headed by a Biosafety Registrar. The Registry was set up to receive, screen for completeness and forward applications to the National Biosafety Advisory Committee for evaluation and issue permits prescribed by the Environment Management Act. Training materials were developed for the risk assessment workshops and training was carried out for the Biosafety Registrar's office, the National Biosafety Advisory Committee (NBAC), the Project Steering Committee and prospective applicants on “Risk Assessment of GMOs”. A mock practice exercise was conducted by the NBAC after the review of a cotton CFT application to test the processes and systems of the Registry.

Full understanding of the Swaziland Socio-economic Considerations

58. The project conducted a study⁶ on ex-ante Cost/Benefit of GMOs and the socio-economic implications in Swaziland. The study collected data on conventional crops in Swaziland and for cost comparison used data from South Africa. It also looked at willingness to grow GMO. The report found that there was awareness of GMO issues but people are not aware of the potential side-effects and precautions necessary for growing GMOs. The need for additional public awareness-raising work was noted. Public Awareness is an on-going activity. Workshops⁷ have been held to capacitate stakeholders. To sustain these workshops; the stakeholders are encouraged to invite the Office for short presentations during their own institutional meetings.

Outcome 3: A workable, effective monitoring and enforcement of LMOs system in place and in harmony with other national monitoring and enforcement laws and procedures

A fully functional inspection and monitoring system in place

59. A Memorandum of Understanding was signed with three key inspectorate institutions: the Ministry of Health, Swaziland Revenue Authority, and the Police. Series of workshops were undertaken to capacitate the inspectors including, among other things, in the use of GMO Spot Kits. Emergency Response Procedures for Disasters Involving GMOs were developed and validated by stakeholders and workshops were organized for stakeholders on the procedures.

60. Both the Biosafety Act 2012 and the Environment Management Act, 2002 required the designation of Biosafety Inspectors. This was done as a part of this project. In addition, a Biosafety Inspector's Manual was developed, training of inspectors on how to use the

⁶ <http://www.sea.org.sz/biosafety/index.php/documents/>

⁷ Workshop proceedings for training workshops: <https://anubis.unep.org/projects/1207>

Inspector's Manual was undertaken and regular capacity building risk- assessment workshops for the inspectors have been conducted.

61. Through this project, a national Biosafety Clearing house has been established and housed within the premises of the Competent Authority. When fully operational, the database will contain all the information required by stakeholders and be fully linked to the global Biosafety Clearing House (BCH) which is housed in the CBD Secretariat.

62. The project further organized workshops for stakeholders on the national biosafety strategy and action plan. Pre COP/MOP 13 Consultative workshops and post COP reporting workshops were also organized for the National Biosafety Committee Advisory members.

Strengthened UNISWA laboratories able to efficiently detect LMOs

63. As part of the inspection regime a designated GMO detection laboratory was established at the University of Swaziland (UNISWA). A Memorandum of Understanding (MoU) was signed with UNISWA to equip the laboratory and train the designated university staff on GMO detection. In addition, the project signed a Memorandum of Agreement (MoA) for the provision of Laboratory Supplies and Consumables. A consultant was engaged to conduct proficiency testing of the laboratory and to train the laboratory staff on GMO detection. A GMO Detection Manual, Guidelines and Standard Operating Procedures (SOPs) for the laboratory have been developed. A baseline survey on the current status of GMO contamination in the country is on-going. The evaluation team visited the GMO Detection Laboratory and note that the laboratory is fairly well established and equipped with a very experienced and committed Director. Therefore, the basic laboratory capacity to detect GMO contamination exists in the country. However, it is not clear that the analytical capacity is fully in place. There is need for a fully dedicated biosafety technician. At the time of this evaluation there were applications to import GMO maize and while a portfolio exists for GMO maize that analytical capacity will become important for GMO cotton and future applications for other crops.

Outcome 4: A workable and effective national system for public awareness, education and participation in decision making for LMOs in place in support of Swaziland's good governance An established and fully functional system of national consultation on biosafety issues

64. In order to facilitate public participation by informed stakeholders in decision making on LMOs, the project has developed a Public Awareness Strategy and Action Plan. The public awareness strategy has been implemented through, the development of awareness raising materials (including posters, brochures, lanyards, t-shirts, and stationery among a host of other biosafety promotional articles) which have been widely distributed. TV spots, radio discussions, meetings and workshops were among the awareness raising activities undertaken. The materials have been used in workshops and meetings organized by the project.

Strengthened system for public awareness on the safe use and handling of LMOs

65. This activity was designed, among other things, to mainstream modern biotechnology and biosafety in programs and processes of higher learning as well as in the curricula of primary schools and high schools. Two memorandums of agreement (MoA) were signed with two institutions to execute this activity, one with MESA Chair and the other with the National Curriculum Centre (NCC). The MoA with MESA Chair focused on the mainstreaming in institutions of higher learning in Swaziland. Mainstreaming within MESA Chair involved conducting baseline studies, training of MESA chair members on modern Biotechnology and Biosafety, development of training manual and a workshop for heads of institutions as the first

phase. The second phase basically involved the distribution of the training manuals developed to the identified institutions.

66. Another key activity involved a MoA with the National Curriculum Centre. This MoA focused on mainstreaming modern biotechnology and biosafety into the curriculum in primary, secondary and high schools. This activity was greatly facilitated by the ongoing curriculum reform in the country, which has allowed the project to incorporate content in almost all the subjects. The activities that have been undertaken under this activity include:

- Conducting a curriculum audit of modern biotechnology and biosafety in all the subjects
- Developing a curriculum matrix
- Conducting a number of awareness-raising workshops
- Content mapping simulation exercise

67. At the time of this evaluation mainstreaming work within the Universities and the national curriculum centre were coming to an end. There were indications of the need to conduct a follow-up survey to evaluate and monitor the progress of the mainstreaming process through curriculum audits.

Awareness Campaigns

68. National awareness workshops were organized for specific target groups including: Agricultural Extension Officers; Farmers, Inspectors, Teachers; and in six (6) communities.

69. School Competitions on Biosafety were, by far, the most effective awareness campaign activities designed to reach school going children. One of the most efficient means of creating awareness among school children was to let the students undertake research to be presented to their peers in the form of rehearsals prior to the competition date; thus disseminating the information to a wider student body, the teachers as well as their parents. The National Schools Competition on Biosafety was organized for two consecutive years. The campaigns also used posters and leaflets, notebooks, T-shirts, and newspaper articles to inform the general public and policy-makers.

Radio Programmes were effective in disseminating information to the public

70. Communicating biosafety information requires reliable and balanced information as the debate is often polarized. The partnership forged with the media served as an important bridge between the public, scientists and regulators. The media was engaged and empowered to promote biosafety awareness. Informed media involvement enhanced the quality, depth and accuracy of information in news articles and expanded the range of reporting. One journalist interviewed by this evaluation stated that prior to this project and the workshops she attended, she had been opposed to GMOs but now she reports from a more informed position.

Strengthened of information sharing system for the safe use and handling of LMOs

71. The project developed to a limited extent a functional and strengthened access to and management of information. It facilitated the establishment of the National Biosafety Clearing House (www.sea.org.sz/biosafety). Stakeholder workshops on how to access information on the nBCH and the global BCH (bch.cbd.int) were held. There were indications that these activities would continue on on-going basis among stakeholders and partners.

Extension Officers as a link between scientist and farmers

72. Partnering with Agricultural Extension Officers served as a very natural link between the farmers, scientists and regulators. Through their farmer education activities Extension Officers were able to communicate biosafety information to farmers through workshops and field visits. This helped in integrating biosafety into outreach programmes in the agricultural sector and in capacitating farmers as the intermediate users of biotechnology.

3.2.3 Likelihood of Impact

73. The reconstructed Theory of Change of the project presented in Figure 1 is based on the actual results statements in the project document which have been “broken up” and re-arranged to better conform to UN Environment definitions of the different results levels and to show the theoretical cause-effect relationships.

74. Results from the implementation of the project show that the project has made significant progress along the causal pathway from outputs to impact. A significant number of outputs have been produced. With drivers in place and assumptions being met there seems to be steady movement of outputs along the pathway towards the achievement of direct outcomes and ultimately to impact.

Policy and Law

75. As stated above existing biosafety policies were reviewed and a report prepared. Swaziland’s Biosafety Act was passed in 2012. Over the duration of this project draft regulations to implement the Law were developed. These regulations were discussed with parliamentarians through a number of workshops. The draft regulations were presented to stakeholders at workshops for validation and submitted to the Attorney General for action. Following the coming into force of the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety of the Biosafety Protocol however, there is need to review and amend, if necessary, the relevant sections of the regulations to ensure they are consistent with international law. With the law and regulations in place the project has significantly moved biosafety beyond outcomes given the fact that the project has been mainstreamed within government with capacity built and awareness created among the populace.

Education, Awareness, and Public Participation

76. A direct outcome of the project is that awareness is created generally and modern biotechnology and biosafety are mainstreamed in programs and processes of higher learning as well as in the curricula of primary schools and high schools. Memorandums of agreement (MoA) were signed with two institutions to execute this activity, one with MESA Chair and the other with the National Curriculum Centre (NCC). The MoA with MESA Chair focused on the mainstreaming in institutions of higher learning in Swaziland. Courses have been developed and have been piloted in the University of Swaziland and set to be deployed in other colleges. Curriculum development in primary, secondary and high schools were being completed at the time of this evaluation. National awareness workshops were organized for specific target groups including: Agricultural Extension Officers; Farmers, Inspectors, Teachers; and in six (6) communities. The partnership forged with the media served as an important bridge between the public, scientists and regulators.

77. Simultaneously with creating knowledge and raising awareness the project supported government institutions, NGOs, Universities, and journalists through training to develop

capacity in the areas of biotechnology and biosafety. These capacity building activities involved workshops, meetings and the establishment of a GMO Detection Laboratory, among other things. To ensure adequate built national capacity in the areas mentioned above, a critical mass of trained personnel is required. Therefore, there is need to replicate training activities in order to fully operationalize the biosafety framework that would be put in place through implementation of the biosafety law and its implementing regulations.

Drivers and Assumptions

78. Key drivers for Swaziland to transition to sound management of LMOs are that government departments, IGOs, NGO and industry who are key stakeholders reach consensus on legal reforms needed and that laws and regulations would be put in place to facilitate the sound management of LMOs. Assumptions include political commitment of government and strong support for the legislation, support by the partner agencies in achieving project objectives, and adequate human and financial resources. Another assumption is that management of LMOs can be undertaken through a rational and transparent science-based process. There is also an assumption that sufficient national capacity and information exist for raising awareness of the economic potential and the risks of LMOs. During the process of developing the project, there was wide consultation with stakeholders and consensus was built to revise the policies, laws and regulations required to institutionalize the framework required to manage LMOs. As noted above, the policy and enabling Biosafety legislation have been developed and promulgated. The implementing regulations have been developed and were pending action in the legislature at the time of this evaluation.

79. Interviews with government agencies have indicated strong commitment to achieving project objectives. For Swaziland to transition to the sound management of LMOs, the project assumptions related to the availability of adequate human and financial resources to upscale policies as well as some changes in consumer behaviour were realized through GEF funding, government co-funding and awareness raising activities. While human capacity has been built, the interviews conducted for this evaluation confirmed that a critical mass has yet to be reached to ensure effective and sustained program implementation. The capacity to undertake a science-based process exists in the country and was clearly reflected through the effective way in which project activities were implemented.

80. With respect to drivers for change, the major stakeholders have worked together on the development of the earlier biosafety initiatives (the development phase of the biosafety frameworks) and there is strong motivation to continue the partnership. In spite of some delay in project implementation, there seems to exist a strong drive to bring the project to its logical conclusion even after the official end of the project. At the time of this evaluation several activities such as pending approval of regulations, completion of work on curriculum development at the National Curriculum Centre, a fully operational National Biosafety clearing house and additional awareness-raising activities were in the process of being completed. While inspectors in the Ministry of Agriculture have the potential capacity to conduct inspections of GMO introduction into the country, they still have to be trained. Public awareness has been raised but the extent to which public actions can be deployed as a potential driver for change could not be ascertained. Indeed, awareness-raising should be a continuing process. Post release monitoring is still a challenge.

81. At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and legal regime for the control and management of LMOs which promotes conformity with national guidelines and international standards has been put in place. Through substantial public awareness campaigns and the production and dissemination of public information materials key

stakeholder groups, in particular government agencies have a good understanding of the issues involved in the management of LMOs and the need for biosafety. Yet, there is more work to be done in this area. Awareness-raising must be considered as a continuing process and more awareness raising activities will be necessary. The information sharing portals (national nodes for biosafety clearing house) that would provide access to information need to be fully developed and made interoperable at the national level and with the Biosafety Clearing house at Secretariat of the CBD in Montreal, Canada.

82. A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation noted however that the focal point for Biosafety is located in the Ministry of Environment and Tourism while the Secretariat of Biosafety activity is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and should be regularized.

83. Substantial capacity has been built in biosafety and biotechnology and efforts have been made to mainstream biosafety into elementary, secondary and tertiary education curricula. Basic technological (laboratory) capacity has been built in the country for the identification of LMOs however, there is need to provide trained manpower to manage the system.

84. The overall rating of the likelihood of impact is **satisfactory**.

3.3 Sustainability of Project Outcomes

85. Sustainability is understood to mean the extent to which outcomes and impacts derived from project implementation are likely to continue after external funding and assistance end. Factors and conditions affecting sustainability have been considered in four areas: socio-political factors, financial conditions, institutional and environmental factors. The biosafety project presented an explicit strategy to sustain results.

86. The project was designed with a specific end date and the responsibilities for continuing work on biosafety was given to a Secretariat within the Swaziland Environmental Authority. However, a clear exit strategy that can articulate how follow-up measures and resources will be mobilized to implement additional capacity building and awareness raising activities, has not been developed. The partnerships built, and the project activities executed such as capacity building, awareness-raising, legal structures, as well as the mainstreaming of biosafety into school programmes are measures towards achieving sustainability of outcomes.

3.3.1 Socio-political factors

87. The project was formally endorsed by government in June 2012 and co-funding in the amount of US\$800,000 allocated for its implementation. This is the evidence of government commitment which, under normal circumstances, would contribute to its sustainability. The project is consistent with national priorities and commitments made by the Kingdom of Swaziland under global environmental agreements. Through capacity building, the project intended to produce a critical mass of staff nationally to operate the legal and institutional framework created by the project into the future. In creating partnerships with high level support and specified commitment from the Ministry of Environment and the participation of appropriate government agencies, the project has ensured that implementation and monitoring of activities can continue into the future. Nevertheless, there is the issue of separation where the focal point for Biosafety is located in the Ministry of Environment and Tourism while the Secretariat of Biosafety is located within the Swaziland Environment Authority; it could create administrative inefficiencies and therefore needs to be regularized.

88. Studies conducted early in the project revealed the willingness of farmers to grow GMO crops and indeed Cotton farmers had begun to exert pressure to grow GMOs. At the time of this evaluate one application had been received from the private sector to grow GMO cotton. The willingness to grow cotton indicates the need for biosafety and biotechnology capacity in the country ensuring the sustainability of project outcomes in the country.

3.3.2 Financial conditions

89. The availability of financial resources was discussed above as an assumption that is required to transform policy, plans, regulations and skills into action. Financial resources from the GEF and from the Government of Swaziland were instrumental in the successful implementation of the project. Yet, the need to continue awareness raising and capacity building efforts necessary to sustain project activities is evident. These would require financial resources and need to be mobilized especially where resources allocated to the Biosafety Secretariat from Government sources is insufficient. This evaluation notes that the institutional framework which has been put in place as a result of this project has effectively mainstreamed biosafety into the Swaziland Government implying that government budget allocations would be made to sustain some program activities.

3.3.3 Institutional Sustainability

90. This dimension of sustainability addresses factors associated with processes, policies, national agreements, legal and regulatory frameworks and governance structures. The direct outcomes discussed above in section 3.3 of this report have a direct bearing on this dimension of sustainability. As discussed in greater detail in the assessment of effectiveness, the building of partnerships and the development of laws and policy were instrumental in developing institutional capacity which would enable the Government of Swaziland to transition to the sound management of LMOs. A policy on biosafety had earlier been developed but had undergone review in this project. The draft legislation was promulgated and regulations developed pending parliamentary action. Through workshops and information materials technical capacity was built and awareness created in government agencies and in the universities and such capacities will likely remain in the various agencies and institutions into the future. With the legal regime in place and adequate technical capacity built, the results of the project are likely to be sustained in the long term.

91. This dimension assesses project outputs or higher-level results that are likely to affect the environment which, in turn, might affect sustainability of benefits. The proper management of living modified organisms, in and of itself, is an environmental benefit. Indeed, all the project activities that created awareness, built capacity and managed the introduction of LMOs are aimed at promoting environmental benefit. This evaluation did not observe any negative consequences on the environment from the implementation of project activities.

92. The overall rating of the likelihood of sustainability is satisfactory

Replication and up-scaling

93. The potential for replication and up-scaling of activities undertaken by the project exists. In particular, the partnership model used by the project has been successful in bringing together stakeholders including government agencies, civil society, universities and the private sector around issues of common concern. Mainstreaming biosafety into the curricula of educational institutions and embedding the project secretariat in the Competent Authority are innovative and constitute a replicable option for other countries and in other similar projects.

94. Production and wide circulation of public awareness and information documents which inform key stakeholders and the general public on the risks and advantages of the introduction of LMOs and, in particular, the training of journalists to enable them gain a better understanding of biosafety has created the potential capacity of individuals who can interpret and advocate for biosafety issues effectively. This is an innovation that can be replicated in future similar projects.

95. The rating of replication and up scaling is **Satisfactory**

3.4 Efficiency

96. Efficiency is a performance issue which reflects the timeliness and cost-effectiveness of the implementation of planned activities and the delivery of outputs and outcomes. These could include positive contributions to performance such as: cost and time saving measures; use of existing systems to support project design/activity; and fullest use of human and financial inputs; as well as negative contributions to performance such as: administrative and management delays.

97. The design of this project drew largely on the internal expertise within the Swaziland Government with assistance and support from the UN Environment and local NGOs to provide efficiency and effectiveness in execution. This biosafety capacity building project is not a new initiative. It is built on existing policy and biosafety development phase project. Therefore, the basic building blocks for this project to take off were in existence. In general, efficiencies are either built into project design or have been realised through the use of proven models which allowed the project to roll-out activities to a wider stakeholder group, sometimes through workshops and training programmes. For example, the project organized several training courses in 2016 and 2017 using the proven concept of training of trainers on various subjects including risk assessment and management, LMO detection, and diagnostics and monitoring of LMOs, inspection systems and methods. It further used existing institutions like the local universities and the national Curriculum Centre to mainstream biosafety into school curricula nationwide.

98. The use of partnerships contributed to both effectiveness and efficiency. The role of partnerships in project implementation is discussed in some detail in section 4.3 (Stakeholder Participation and Public Awareness) of this report.

99. The close involvement of the relevant ministries, government departments and universities, increased efficiency as project implementation benefited from their better institutional knowledge and memory, contacts and experience. For example, many of the consultants who conducted studies, developed curricula and undertook training workshops/courses came from the various university and government institutions. Trainers at the training courses in some instances came from government agencies and the universities. The capacity in the national university was leveraged to develop a biotechnology laboratory.

100. Inefficiencies involved slow project start-up and delays in implementation of some activities for a variety of reasons including, changes in the leadership of the program for a variety of reasons and the fragmentation in the biosafety program where the focal point for biosafety is located in the Ministry of Tourism, Environment and Communication while project implementation is located within the Swaziland Environment Authority. Underlying some of these challenges was a small staff complement at the Project Management Unit, which might have been offset through, for example, increased collaboration with government departments. Funds may also be less of a limiting factor where resources can be, and in some cases were,

amplified though increased use of partnerships. Attempts to improve efficiency involved flexibility in managing resources through rescheduling to mitigate funding challenges.

101. The overall rating of the efficiency is moderately satisfactory.

4. Factors Affecting Performance

4.1 Project Preparation and Readiness

102. An assessment of the initial design of the project was undertaken as a part of the inception phase of this evaluation (see Annex 4). It helped to refine the questions and issues defined in the evaluation matrix and the Reconstructed Theory of Change (Figure 1) for the project by identifying causal links, assumptions and drivers. Key sources of information for project design quality assessment included the approved project document, the Project Review Committee (PRC) review sheets, and the project logical framework.

103. In general, the project was reasonably well designed and clearly drafted. The case for the need for the project was clearly made. Relevance of the project was articulated through a discussion of the project's consistency with CBD Articles 8b and 8g on the implementation of the Cartagena Protocol on Biosafety. While no references were made to the Bali Strategic Plan and South-South co-operation, linkages to other GEF and World Bank interventions were identified. The issue of Living Modified Organisms and the barriers to effective biosafety system were clearly and adequately articulated in the project document. A clear description of the existing situation with respect to LMO was presented and opportunities and constraints to project implementation were identified and documented in the project document. The project document includes a clear description of stakeholder analysis. It provides a comprehensive listing of stakeholders and clearly describes partner competencies. There is every indication that the stakeholders identified were involved in project design through a consultative process initiated by Swaziland Environmental Authority.

104. A log-frame was developed, and a narrative of the intervention logic was included in the project document. However, the description does not detail causal linkages between the various project elements. A project implementation diagram was developed, and a clear description of roles and responsibilities was attached as annex 1 to the project document. The role of UN Environment was not clearly articulated.

105. An M&E Plan was developed and included as annex 1 to the project document. Responsibilities for monitoring of activities were included in a detailed chart. A cost was assigned to project monitoring specifically but how it was derived was not explained. However, the evaluation learned that the cost of monitoring was subsumed under the project coordination budget. Milestones were defined in the work plan and scheduled and responsibilities for monitoring of activities were included in a detailed chart.

106. The Evaluation Team observes that the project design failed to anticipate that the time frame was far too short to complete the project as originally scheduled. It is not surprising that project extensions became necessary and at the time of this evaluation over a year after official project closure some activities were still in the process of being completed.

107. For the most part, critical success factors were identified in the project document and seemed to have been adequately considered and this was reflected in a risk analysis table. Critical risks related to parliament's failure to approve the biosafety bill was mitigated by continuing awareness raising and education on the key role of the legislation in the management of biodiversity in the country. To resolve the critical risk of low institutional capacity to manage LMOs, resource mobilization for training programs to supplement project resources were identified since capacity building was expected to be an on-going activity. Government was lobbied frequently with regards to the importance of the National Biosafety

Frameworks to the sustainable use of biodiversity resources in the country in order to mitigate the risk that trade would be prioritized above the conservation of nature.

4.2 Implementation Approach and Adaptive Management

108. The UN Environment Division of Environmental Policy Implementation had responsibility for project implementation. Its specific responsibilities were supervision, evaluation, technical advisory support and management and reporting. The project was executed at the country level by a Biosafety Secretariat within the Swaziland Environmental Authority (SEA). The Board of SEA and the Project Steering Committee (PSC) provided policy guidance and technical oversight during project execution.

109. The Project Management Unit (PMU) was responsible for managing project execution. Its responsibilities included monitoring the progress of project execution and communicating with task teams and consultants on a routine basis. The Unit ensured that all required project reports were submitted to the Project Steering Committee. The PMU was accountable to the PSC and functioned as the Project Secretariat. The PMU developed annual work plans. The work plan targets were adjusted depending on the extent of progress achieved and this was done on a routine basis. These adaptations involved substantial effort and time. However, the complement of staff in the Project Secretariat was limited (3 staff): a Project Coordinator; an Administrative Assistant and a Financial Assistant. The Financial Assistant worked on a temporary basis assigned from the central agency while the Administrative Assistant had a limited term contract. The evaluation team had the opportunity to speak with all project staff who expressed satisfaction with the progress of work. While the Finance Assistant is still at her post, the Administrative Assistant was out of contract. Given all the capacity building activities planned and the applications that were being received as well as the work that would be required to administer the national biosafety framework including the proposed regulations, the need for manpower support to the Biosafety Secretariat is evident.

110. A Project Steering Committee (PSC) was established at the national level to provide policy guidance to the project on political and administrative issues. The PSC also, provided technical support to the project. It approved the detailed work plan developed by the project secretariat and in general oversaw the smooth running of project implementation. The Committee met each quarter to deliberate on the progress of project implementation and adjustments were made as deemed necessary. Detailed minutes of the Committee meeting were prepared and form the basis for the implementation of the decisions of the steering committee.

4.3 Stakeholder Participation and Public Awareness

111. The project document presented a relatively detailed analysis of the various stakeholders in all components of the project. The partners included a large number of government agencies, Universities, Non-Governmental Organizations, community organizations including Farmers' Union and National Consumers association, Local Authorities and the private sector. The analysis defined roles of the various stakeholders by project component and defined challenges and opportunities. Indeed, competencies of the individual partners are clearly described in the project document. The only UN partner that seemed to have been involved in project implementation was UN Environment (the Implementing Agency).

112. These partners were selected based on a number of criteria, including presence and on-going programmes in the country, relevance of their respective mandates, goals and on-going programmes (government agencies), on-going activities and experience in the country (NGOs),

technical/scientific capabilities, and availability of relevant data and information (academic/research institutions),.

113. While there is evidence that the various partners may have been consulted during project design, the nature of such consultation and involvement were not clearly documented in the project document. A list of partners engaged is included in Annex 5. The mix of partners was effective and efficient, with each partner making important contributions towards different aspects of the project, which were necessary for the achievement of project outcomes. Based on interviews conducted with partners during the evaluation mission as well as the examination of progress reports, PIRs, and project accomplishments (terminal report and technical outputs), it is clear that there was excellent collaboration among the partners driven, in part, by their interest in and enthusiasm for the project.

114. The overall rating of stakeholder participation is Satisfactory

4.4 Learning, Communication and Outreach

115. Besides the national Biosafety Clearing House (nBCH), no specific knowledge management approaches were discussed in the project document. However, there is clear stakeholder analysis and partners and their roles were clearly defined relative to UN Environment responsibilities. While there was no detailed discussion of communication channels of stakeholders, inherent in the roles description are pointers to how the Project Coordination Unit will interact with various stakeholder groups. As shown in the project accomplishments above, a significant amount of effort went into public awareness activities on the need for biosafety in the country and the need for the proper management of LMO.

4.5 Country Ownership and Driven-ness

116. The biosafety project was formally endorsed by the Government of Swaziland in June 2012 indicating full support for the project because of the project's consistency with national priorities and commitments made by the Kingdom of Swaziland under global environmental conventions. In addition, the endorsement noted that the project had been discussed with relevant stakeholders in accordance with GEF's policy of public involvement.

117. The participatory project approach in project design and implementation established the process of ownership among national stakeholders and hence their active participation in the project activities. The effective collaboration of Swaziland Environment Authority in project implementation with the relevant national biosafety institutions such as the University of Swaziland, the National Curriculum Centre, the Ministry of Agriculture, the Swaziland Revenue Authority, the Ministry of Health and the Swaziland Cotton Board in the various components of the project facilitated country ownership and driven-ness as well as mainstreaming of biosafety in Swaziland. The participation of the above national stakeholders improves Swaziland's decisions relating to the overall conservation and management of ecosystems in Swaziland.

118. The rating for country ownership is satisfactory

4.6 Financial Planning and Management

119. The project's financial plan and a detailed budget (in UN Environment format) were presented in the Project document. The resources in the budget came primarily from GEF Trust Fund and Government sources. The GEF Trust fund contribution is US\$ 770,000 with National counterpart funding of US\$ 800,000; making the total cost of the project US\$ 1,570,000.

120. Five formal project budget revisions were undertaken. The first revision was done in June 2013 and the last in March 2017. The revisions to the budget were designed primarily reflect adjustments to project delivery schedule which was extended from the planned 48-month to 60-month project duration.

121. In general, the planned funding target had been met. Financial reports were provided to UN Environment and the GEF and financial audits were undertaken for the project. The financial status reflected a clear breakdown of resources and expenditures of the GEF funds. There did not appear to be any communication problems between the project team with UN Environment Headquarters on financial matters.

122. While, the planned funding target had been met. However, the expected co-finance contribution was only approximately 38% of the expected target. All routine quarterly expenditure reports were provided over the project duration. Key financial parameters were monitored quarterly to ensure cost-effective use of financial resources. Indeed, based on the signed final financial statement of the GEF grant dated 01/12/2017, the cumulative expenditures since the commencement of the project essentially shows that the US\$770,000 GEF grant had fully been expended. Funding Document details (Document 75465) in IMIS supports the periodic expenditure reporting and is consistent with the final financial statement that was made available for this evaluation. The object codes by which the expenditure reports were prepared do not necessarily coincide with project outputs and therefore the comparison with the approved budget at output level cannot be made. It is true though that there was movement of resources across budget lines. However, there is no indication that there was improper financial management standards and adherence to UN Environment's financial management policies. No communication problems between the national project team and UN environment was evident. Table 5 below presents an assessment of the management of the finances of the project.

Table 5: Financial Management

Financial management components:		Rating
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.)		S
Timeliness of project financial reports and audits		S
Quality of project financial reports and audits		S
Contact/communication between the PM/TM & FMO		S
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)		S
A.	An up-to-date 'Co-financing and Project Cost's table	Y
B.	A summary report on the project's annual financial expenditures during the life of the project.	Y
C.	Financial documents from Mid-Term Evaluation/Review (where appropriate)	Y
D.	All relevant project legal agreements (e.g. SSFA, PCA, ICA) – where appropriate	Y
E.	Associated financial reports for legal agreements (where applicable)	Y
F.	Copies of any completed audits	Y
Demonstrated knowledge by the PM/TM & FMO of partner financial expenditure		S
PM/TM & FMO responsiveness to financial requests during the evaluation process		S
Overall rating		S

123. The rating on Financial Planning and Management is **satisfactory**

4.7 UN Environment Supervision and Backstopping

124. The project document was signed in UN Environment 28 August 2012. One Task manager was responsible for implementing the various components of the project, among other projects, under the purview of the same Task Manager. The Task Manager provided oversight by UN Environment that ensured that the project met UN Environment and GEF policies and procedures. The Task Manager reviewed the quality of draft project outputs, provided feedback to the project partners, and established peer review procedures to ensure adequate quality of scientific and technical outputs and publications. The Evaluation team held face-to-face discussion with the Task Manager in Nairobi and exchanged email messages during the conduct of this evaluation. The central dedicated data management platform, Anubis, provided a reliable resource platform for project management. Reporting on the progress of project implementation has been done in Anubis over the period covered by this evaluation. Indeed, the evaluation of project delivery came mostly from Anubis sources. It is however noted that a more effective supervision could be achieved if the Task Manager's portfolio could be reduced. This is an area that requires UN Environment management attention.

125. The rating on UN Environment Supervision and Backstopping is **satisfactory**,

Gender

126. The project document is silent on gender equality issues in data collection/analysis and policy formulation. To a question posed to the national project staff, the latter admitted the silence but indicated that in all activities, they have tried to ensure gender balance. Indeed, the evaluation team observed that there was significant female participation in project activities.

4.8 Project Monitoring & Evaluation

127. Elements of a monitoring plan were included in the project document. Milestones seem adequate for measuring implementation progress. Anubis has served as the repository of a substantial portion of the information used in this report on the achievement of planned project outputs, the primary source of information on project monitoring.

4.8.1 M & E Design

The project followed UN Environment standard monitoring, reporting and evaluation processes and procedures. Reporting requirements and templates were an integral part of the UN Environment legal instrument signed by the Kingdom of Swaziland through the Swaziland Environment Authority and UN Environment. The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators, along with the key deliverables and benchmarks, were the main tools for assessing project implementation progress and whether project results are being achieved. Like most of the UN Environment projects at the time, while evaluation costs had been specified during project design, monitoring costs were subsumed under project management and no specific resources were allocated for monitoring and reporting. The budget of costed M & E plan reviewed by this evaluation amounted to \$134,000 of which \$20,000 and \$50,000 were allocated to the mid-term

review and a final evaluation respectively. An additional \$20,000 was allocated to audit reports. While the \$90,000 was included in the project budget reference was made to the remaining \$44,000. This evaluation concludes that the budget for evaluation was adequate but not sufficient for detailed field studies which would have involved a longer in-country visit and travel to border posts to interview frontline field personnel, among other things.

128. Project supervision adopted an adaptive management approach. The Task Manager developed a project supervision plan at the inception of the project which was communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision was on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress on delivering the agreed project global environmental benefits, conservation and protection of biodiversity was assessed with the Project Steering Committee (PSC) at agreed intervals. Project risks and assumptions were regularly monitored both by PSC and UN Environment Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation was reviewed and rated as part of the PIR. Key financial parameters were monitored quarterly to ensure cost-effective use of financial resources. It was the responsibility of the UN Environment Task Manager to monitor whether the agreed recommendations are being implemented. The current independent terminal evaluation was designed as part of the M&E at the end of project implementation managed by the Evaluation Office of UN Environment.

129. The rating on M&E design and arrangements is satisfactory,

4.8.2 M&E Implementation

130. As mentioned above, no significant changes were made to the results framework. Monitoring of project performance and progress towards outcomes was undertaken on the basis of the M & E plan set out in annex 1 of the project document. The PMU undertook the day-to-day monitoring of implementation progress based on the project's annual work plan. Five annual PIRs for the years 2013-17 were prepared by the PMU and with inputs from the TM. The PIRs described the progress of implementation for each activity and indicated outputs produced. As required, ratings were assigned to progress made for each activity. The PIRs discussed the challenges that faced project implementation.

131. Annual progress reports (APR) for the period 2012-2017 were also prepared by the PMU. The progress reports were reviewed and approved by the PSC. A final project report which was prepared at the end of the project could have been better organized. It was all presented in tabular format and the details of challenges faced and how they were resolved could have formed the background to the lessons which were presented in the tables.

132. Quarterly expenditure reports were also submitted by the PMU through Anubis. A mid-term management review took place in October 2013. The review included all parameters recommended by the GEF Evaluation Office for terminal evaluations and verified information gathered through the GEF tracking tools, as relevant. The review was carried out using a participatory approach whereby parties that may benefit or be affected by the project were consulted. The management review identified a number of implementation challenges and expressed concerns about the delivery of some activities. This management review was led by the UN Environment Task Manager who monitored whether the agreed recommendations are being implemented. As a result of the 12 month overrun of the duration of the project, the final evaluation has been undertaken at a later date than planned.

133. The rating on M & E implementation is satisfactory

4.8.3 Project Reporting

134. Monitoring of project implementation was reported through Project Implementation Reports (PIRs) the project reporting tool for GEF projects. All PIR reporting was duly done against output indicators and milestones. Financial reports including a final financial report prepared in July 2017 on the GEF grant were also submitted to UNEP.

135. The project reports reviewed for this evaluation show that project performance reporting is done mostly at the output level because output monitoring was an easier task and the achievement of outputs became a surrogate for the outcomes. Development of capacity at the national level for example was often reported as training activities, workshops, seminars or meetings organized inferring -but not proving- built capacity. The assumption is made –but no evidence is provided- that the reported training workshops and meetings will result in knowledge, skills and/or attitudinal changes that will lead to sounder management of LMOs. Compliance with reporting requirements at the project level was adequate. Progress reports were easily found in Anubis and as noted, often describe activities and outputs. Higher level results were not frequently reported on. The Annual Performance Reports were reviewed and approved by the Project Steering Committee.

5. Conclusions

136. The project was designed to enable the Kingdom of Swaziland to implement its national biosafety framework and to fulfil its obligations as a Party to the Cartagena Protocol on Biosafety. This was to be accomplished by strengthening the individual, institutional as well as systemic structures, functions and capacities. The objective of the project was achieved through a combination of legal, policy and other normative interventions including the review of policy, development of regulations based on the existing legal regime, and other interventions such as education and awareness campaigns, mainstreaming biosafety into school curricula, development of manuals, workshops, clearing houses, and other forms of technical capacity building.

137. In approximately 5 years of project implementation, progress on working with key partners and stakeholders for a common approach to LMO management has been made. A substantial amount of work has been done and a lot has been accomplished. Substantial effort was expended on stakeholder consultation and participation and this is reflected in work accomplished by the participating agencies.

138. At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and legal regime for the control and management of LMOs which promotes conformity with national guidelines and international standards has been put in place. Substantial work has been undertaken to mainstream biosafety in government agencies, universities and schools in the Kingdom of Swaziland. Through substantial public awareness campaigns and the production and dissemination of public information materials key stakeholder groups, in particular government agencies, now have a good understanding of the issues involved in the management of LMOs and the need for biosafety. Yet, there is more work to be done in this area. Awareness-raising is being considered as a continuing process and more awareness raising activities are planned. The information portals (clearing houses) that would provide access to information need to be fully developed and synchronized with the Biosafety clearing House at the Secretariat of the CBD in Montreal.

139. A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation notes, however, that the focal point for Biosafety is located in the Ministry of Tourism and Environmental Affairs while the Secretariat of Biosafety activity is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and should be regularized.

140. Substantial capacity has been built in biosafety and biotechnology and efforts have been made to mainstream biosafety into elementary, secondary and tertiary education curricula. Basic technological (laboratory) capacity has been built in the country for the identification of LMOs however, there is need to provide trained technical capacity in the laboratory to conduct.

5.1 Recommendations

141. A fully functional national biosafety framework is in place and fully integrated into the bureaucracy of the Competent Authority (Swaziland Environment Authority). This evaluation noted, however, that the focal point for Cartagena Biosafety Protocol is located in the Ministry of Environment and Tourism while the Secretariat for running the biosafety framework is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This evaluation recommends that **the Minister for Environment and Tourism should take action to bring the two functions (i.e. the focal point for**

Cartagena Biosafety Protocol and the under the national biosafety Secretariat) under the same umbrella.

142. Substantial capacity is being built in biosafety and biotechnology through these efforts to mainstream biosafety into elementary, secondary and tertiary education curricula. **With Biosafety being mainstreamed into various agencies and educational institutions it is recommended that The Swaziland Environmental Authority continues to support the process of mainstreaming on an ongoing basis as part of the activities of the national biosafety framework.**

143. Basic technological capacity (in terms of laboratory equipment) has been built in the country for the identification of LMOs. However, there is need to provide trained manpower to operate the biotechnology laboratory on ongoing basis. The evaluation recommends that an immediate priority should be **the hiring and training of a technician by the Swaziland Environment Authority to be seconded to the University laboratory to conduct analysis of the samples and assist the laboratory Director.**

144. Awareness-raising must be considered as a continuing process and more awareness raising activities will be necessary. The evaluation recommends that **the Swaziland Environment Authority must ensure that the national information portals that provide access to biosafety information (i.e. biosafety clearing houses) are fully developed and made interoperable with the CBD Biosafety Clearing house at the CBD Secretariat, Montreal.**

145. This evaluation also reiterates the recommendation in the internal mid-term review for the Secretariat to **urgently review and revamp the Swaziland Environmental Authority (SEA) website and ensure its interoperability with the Swazi Biosafety Registry and its work.** The national biosafety Secretariat (Swaziland Environment Authority) should **ensure that the national website is made interoperable with all the national nodes of the Biosafety Clearing House and that the nodes are populated on a daily basis by providing targeted training for its users and designated persons.** The Secretariat must also **intensify awareness creation in biosafety by making the website more friendly and dynamic and to incorporate social media tools such as Facebook, twitter and a "YouTube" channel for uploading audio visuals.** This could help especially capture the attention of the youth.

146. The signing of Memoranda of Agreement with all the national partners (Environmental Health (Port Health); University of Swaziland (Detection Lab); University of Swaziland (Mainstreaming in the curricula); National Curriculum Centre; Revenue Authority (Institutional); Police (Institutional); and Ministry of Agriculture and Ministry of ICT) during the project implementation serves as a good example for mainstreaming of biosafety into national systems. With the signing of Memoranda of Agreement with national partner agencies, **the evaluation recommends that the Secretariat must institutionalize a mechanism for continuous training and updating of biosafety information with the partners.**

147. The application for Field Trials before the Swazi Biosafety Registry serves as a good test of the processes of the Swazi national biosafety framework. The evaluation recommends that **in their next reporting, the Swaziland Environmental Authority should share lessons learned from the Cotton Field Trials with the Biosafety Clearing House in Montreal, for dissemination to other countries.**

148. Tracking of applications for permits is an essential component of any functional national biosafety framework. **This evaluation recommends that the Swazi Biosafety Registry develops an electronic tracking system for the office.**

149. This evaluation suggests that **in future follow-up projects a clear distinction should be made between monitoring for adaptive project management and monitoring for reporting purposes and resources allocated to both to enable adequate monitoring data collection and reporting.**

5.2 Lessons Learned

150. The partnership forged with the media served as an important bridge between the public, scientists and regulators. The media was engaged and empowered to promote biosafety awareness. **Informed media involvement enhances the quality, depth and accuracy of information in news articles and expands the range of reporting.**

151. By introducing information on LMOs, Biosafety and Biotechnology into school curricula at all levels from primary schools through the university system, the understanding of biosafety is expected to be mainstreamed, contributing to a national system for awareness raising/education and public participation. **Mainstreaming biosafety into the curricula of educational institutions and embedding the national biosafety secretariat in the Competent Authority are innovative and constitute replicable options for other countries and in other similar projects.**

152. Information sharing by way of workshops, dissemination of information materials, etc. to parliamentarians and members of the senate has facilitated law-making in Swaziland and is worth replicating in future projects. **Engagement of a wide cross-section of stakeholders at all levels, including local communities, is important in projects in which the achievement of the expected long-term impacts is highly dependent on their actions. Further, identifying 'champions' among these groups of stakeholders not only contributes to successful project implementation, but also facilitates progress along the causal pathway towards global environment objectives in the post-project period.**

Table 6: Summary of ratings for each criterion in the terminal evaluation of the project

Criterion	Summary Assessment	Rating
A. Strategic Relevance	At the global and national levels, the project was designed to contribute to, and is consistent with, GEF SP 6 and SF under the GEF 4 Biodiversity Strategy. SP 6 which focuses on assisting countries to implement the provisions of the Cartagena Protocol on Biosafety and in developing mechanism to operationalize national biodiversity. The project is also consistent with UN Environment mandate on capacity building activities and south-South cooperation goals. The project was designed to create the enabling environment to harness national capacity and increase stakeholder participation in the implementation of its Biosafety law of 2008.	HS
B. Quality of Project Design	The project document was clearly drafted and objectives as well as results to be achieved clearly defined. Roles and responsibilities of various stakeholders well defined and the implementation approach reasonably well defined. However, the description does not detail causal linkages between the various project elements. Many activities were presented as outputs even at intermediate levels (i.e. even where a number of activities contribute to an output) resulting in an overly large number of outputs which had to be re-aggregated in the reconstructed theory of change of the project	S
C. Nature of External	The external environment was conducive. South Africa which has	S

Criterion	Summary Assessment	Rating
Context	the longest border with Swaziland already uses LMOs and that naturally affects the decision-making process for the introduction and management of GMOs into Swaziland.	
D. Effectiveness⁸	<p>At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and a legal regime for the control and management of LMOs which promotes conformity with national guidelines and international standards has been put in place. Substantial work has been undertaken to mainstream biosafety in government agencies, universities and schools in Swaziland. Through substantial public awareness campaigns and the production and dissemination of public information materials key stakeholder groups, in particular government agencies, there is now have a good understanding of the issues involved in the management of LMOs and the need for biosafety. There is, however, more work to be done in this area. Awareness-raising is being considered as a continuing process and more awareness raising activities are planned. The national information portals (clearing houses) that provide access to biosafety information need to be fully developed and synchronized with the CBD Biosafety Clearing house at the CBD Secretariat, Montreal.</p> <p>A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation notes however that the focal point for Biosafety is located in the Ministry of Environment and Tourism while the supporting Secretariat and staff for biosafety activities is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This anomaly should be regularized</p>	S
1. Achievement of outputs	The evaluation finds that, at the time the project officially came to an end, many of the outputs had been developed; the remaining outputs being the regulations to implement the Biosafety law currently pending before the Attorney General's Chambers. Table 4 below presents a summary of the planned outputs and what was actually produced at the end of the project.	S
2. Achievement of direct outcomes	<p>A fully functional national biosafety framework is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation noted, however, that the focal point for Cartagena Biosafety Protocol is located in the Ministry of Environment and Tourism while the Secretariat for running the biosafety framework is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This should be regularized.</p> <p>Substantial capacity is being built in biosafety and biotechnology through these efforts to mainstream biosafety into elementary, secondary and tertiary education curricula. It is recommended that this process continues on ongoing basis as part of the activities of the national biosafety framework.</p> <p>Basic technological (laboratory equipment) capacity has been built</p>	S

⁸ 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	Summary Assessment	Rating
	<p>in the country for the identification of LMOs however, there is need to provide trained manpower to operate the biotechnology laboratory on ongoing basis. Of immediate priority should be the hiring and training of a technician by the Swaziland Environment Authority and seconded to the University laboratory to conduct analysis of the samples and assist the laboratory Director.</p> <p>Awareness-raising must be considered as a continuing process and more awareness raising activities will be necessary. The national information portals (clearing houses) that provide access to biosafety information need to be fully developed and must be made interoperable with the CBD Biosafety Clearing house at the CBD Secretariat, Montreal</p>	
3. Likelihood of impact	<p>At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and legal regime for the control and management of LMOs which promotes conformity with national guidelines and international standards has been put in place.</p> <p>Through substantial public awareness campaigns and the production and dissemination of public information materials key stakeholder groups, in particular government agencies have a good understanding of the issues involved in the management of LMOs and the need for biosafety. Yet, there is more work to be done in this area. Awareness-raising must be considered as a continuing process and more awareness raising activities will be necessary.</p> <p>The information portals (national nodes for biosafety clearing house) that would provide access to information need to be fully developed and made interoperable at the national level and with the Biosafety Clearing house at Secretariat of the CBD in Montreal.</p> <p>A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation noted however that the focal point for Biosafety is located in the Ministry of Environment and Tourism while the Secretariat of Biosafety activity is located within the Swaziland Environment Authority. This it would seem can create administrative inefficiencies and should be regularized.</p> <p>Substantial capacity has been built in biosafety and biotechnology and efforts have been made to mainstream biosafety into elementary, secondary and tertiary education curricula. Basic technological (laboratory) capacity has been built in the country for the identification of LMOs however, there is need to provide trained manpower to manage the system</p>	L
E. Financial Management	<p>The project's financial plan and a detailed budget (in UN Environment format) were presented in the Project document. The resources in the budget came primarily from GEF Trust Fund and Government sources. The GEF Trust fund contribution is US\$ 770,000 with Government cash contribution of US\$ 800,000 in-kind; making the total cost of the project US\$ 1,570,000.</p> <p>Five formal project budget revisions were undertaken. The first revision was done in June 2013 and the last in March 2017. The revisions to the budget were designed primarily reflect adjustments to project delivery schedule which was extended from the planned 48-month to 60-month and the phasing out of unspent balances over the project duration.</p>	S
F. Efficiency	The use of partnerships contributed to both effectiveness and	S

Criterion	Summary Assessment	Rating
	<p>efficiency. The close involvement of the relevant ministries, government departments and universities, increased efficiency as project implementation benefited from their better institutional knowledge and memory, contacts and expertise. For example, many of the consultants who conducted studies, developed curricula and undertook training came from the various university and government institutions. Trainers at the training courses in some instances came from government agencies and the universities. The capacity in the national university was leveraged to develop a biotechnology laboratory.</p> <p>Inefficiencies involved slow project start-up and delays in implementation of some activities for a variety of reasons including, changes in the leadership of the program for a variety of reasons and the fragmentation in the biosafety program where the focal point for biosafety is located in the Ministry of Tourism, Environment and Communication while project implementation is located within the Swaziland Environment Authority. Underlying some of these challenges was a small staff complement at the Project Management Unit, which might have been offset through, for example, increased collaboration with government departments. Funds may also be less of a limiting factor where resources can be, and in some cases were, amplified through increased use of partnerships. Attempts to improve efficiency involved flexibility in managing resources through rescheduling to mitigate funding challenges.</p>	
G. Monitoring and Reporting	The M & E design is according to the requirements of UN Environment. The logical framework has SMART indicators. M & E activities were conducted throughout the project. PIR reporting was adequate. A final project report was prepared and came useful in preparing this evaluation.	S
1. Monitoring design and budgeting	The M & E design satisfied the requirements of UN Environment and the GEF. The Project allocated funds for evaluation activities. However, no clear distinction was made between monitoring for adaptive project management and monitoring for reporting purposes and resources allocated to both to enable adequate data collection and reporting	S
2. Monitoring of project implementation	Project implementation reporting was duly done. A mid-term review was organized and the recommendations were useful in adaptive management. A final evaluation has been conducted. The PIRs provided a good description of implementation progress for each activity and output, and assigned ratings to progress on activities and outputs. Problems encountered were described. Internal and external risks to the project were also addressed in the PIRs	S
3. Project reporting	Compliance with reporting requirements at the project level was adequate. Progress reports for individual projects were easily found in Anubis and as noted, often describe activities and outputs. Higher level results were not frequently reported on. The Annual Performance Reports were reviewed and approved by the Project Steering Committee.	S
H. Sustainability (the overall rating for Sustainability will be the lowest rating among the three		ML

Criterion	Summary Assessment	Rating
sub-categories)		
1. Socio-political sustainability	The project was endorsed by government in February 2008 and co-funding in the amount of US\$8,900 allocated for its implementation. This is evidence of government commitment which, under normal circumstances' result in its sustainability. Through capacity building, the project intended to produce a critical mass of staff nationally to operate the legal and institutional framework created by the project into the future. In creating partnerships with high level support and specified commitment from the Minister of Environment and the participation of appropriate government agencies the project has ensured that implementation and monitoring of activities can continue into the future. This is all predicated on the fact that the required legislation and institutional framework is put in place before institutional inertia sets in.	L
2. Financial sustainability	The institutional framework which has been put in place as a result of this project has effectively mainstreamed biosafety into the Swaziland Government implying that government budget allocations would be made to sustain some program activities	L
3. Institutional sustainability	The building of partnerships and the development of laws and policy were instrumental in developing institutional capacity which would enable the Government of Swaziland to transition to the sound management of LMOs. A policy on biosafety had earlier been developed but had undergone review in this project. The draft legislation was promulgated and regulations developed pending parliamentary action. Through workshops and information materials technical capacity was built and awareness created in government agencies and in the universities and such capacities will likely remain in the various agencies and institutions into the future. With the legal regime in place and adequate technical capacity built, the results of the project are likely to be sustained in the long term.	ML
I. Factors Affecting Performance⁹		S
1. Preparation and readiness	The project document was clearly drafted and objectives as well as results to be achieved clearly defined. Roles and responsibilities of various stakeholders well defined and the implementation approach reasonably well defined. However, the description does not detail causal linkages between the various project elements. Many activities were presented as outputs even at intermediate levels (i.e. even where a number of activities contribute to an output) resulting in an overly large number of outputs which had to be re-aggregated in the reconstructed theory of change of the project	S
2. Quality of project management and supervision¹⁰	The project was implemented through a partnership formed primarily among government agencies and universities supported by international consultants. This seemed to have worked quite well except where international consultant withdrew from the	S

⁹ While ratings are required for each of these factors individually, they should be discussed within the Main Evaluation Report as cross-cutting issues as they relate to other criteria. Note that catalytic role, replication and scaling up are expected to be discussed under effectiveness if they are a relevant part of the TOC.

¹⁰ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP 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 UNEP.

Criterion	Summary Assessment	Rating
	project causing delays. A small project secretariat (3 staff) may have imposed substantial burdens on staff and perhaps even slowed down project implementation The Partnership approach used by the project have been a successful model for UN Environment and have been effective in this project	
3. Stakeholders participation and cooperation	The mix of partners was effective and efficient, with each partner making important contributions towards different aspects of the project, which were necessary for the achievement of project outcomes. Based on interviews conducted with partners during the evaluation mission as well as the examination of progress reports, PIRs, and project accomplishments (terminal report and technical outputs), it is clear that there was excellent collaboration among the partners driven, in part, by their interest in and enthusiasm for the project	S
4. Responsiveness to human rights and gender equity	The project document is silent on gender equality issues in data collection/analysis and policy formulation. While no gender analysis was presented, women were nevertheless heavily involved in project implementation. Many of the project participants interviewed including consultants were women. There is certainly a case to be made for disaggregated data in the design of projects including this project	S
5. Country ownership and driven-ness	The biosafety project was formally endorsed by the Government of Swaziland in June 2012 indicating full support for the project because of the project's consistency with national priorities and commitments made by the Kingdom of Swaziland under global environmental conventions. In addition, the endorsement noted that the project has been discussed with relevant stakeholders in accordance with GEF's policy of public involvement. The effective collaboration of Swaziland Environment Authority in project implementation with the relevant national biosafety institutions such as the University of Swaziland, the National Curriculum Centre, the Ministry of Agriculture, the Swaziland Revenue Authority, the Ministry of Health and the Swaziland Cotton Board in the various components of the project facilitated country ownership and driven-ness as well as mainstreaming of biosafety in Swaziland.	S
6. Communication and public awareness	there is clear stakeholder analysis and partners and their roles were clearly defined relative to UN Environment responsibilities. While there was no detailed discussion of communication channels of stakeholders, inherent in the roles description are pointers to how the Project Coordination Unit will interact with various stakeholder groups. As shown in the project accomplishments above, a significant amount of effort went into public awareness activities on the need for biosafety in the country and the need for the proper management of LMO.	S
Overall project rating		S

Annex 1: Assessment of Project Design Quality (PDQ)- Swaziland

A. Nature of the External Context ¹¹		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: (see footnotes 2 & 3)
1	Does the project face an unusually challenging operational environment that is likely to negatively affect project performance?	i)Ongoing/high likelihood of conflict?	NO	Not indicated in project design
		ii)Ongoing/high likelihood of natural disaster?	NO	Not indicated in project design
		iii)Ongoing/high likelihood of change in national government?	NO	Not indicated in project design
B. Project Preparation		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating: (see footnote 2)
2	Does the project document entail a clear and adequate problem analysis?	YES	The lack of capacity to implement the national biosafety frameworks was clearly identified through a stakeholder consultation	
3	Does the project document entail a clear and adequate situation analysis?	YES	Opportunities and Constraints were identified through National Capacity Self-Assessment and presented	
4	Does the project document include a clear and adequate stakeholder analysis?	YES	Stock taking exercise was conducted with stakeholders	
5	<i>If yes to Q4: Does the project document provide a description of stakeholder consultation during project design process? (If yes, were any key groups overlooked: government, private sector, civil society and those who will potentially be negatively affected)</i>	YES	Reference to numerous stakeholders consultations were indicated in the documents	
6	Does the project document identify concerns with respect to human rights, including in relation to sustainable development?	i)Sustainable development in terms of integrated approach to human/natural systems	NO	
		ii)Gender	YES	In relation to public awareness
		iii)Indigenous peoples	NO	
C. Strategic Relevance		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating:
7	Is the project document clear in terms of its alignment and relevance to:	i) UN Environment MTS and PoW	NO	
		ii) UN Environment /GEF/Donor strategic priorities (including Bali Strategic Plan and South-South Cooperation)	YES	Project complies with GEF for financing Biosafety under the Biodiversity Focal Area, specifically strategic objective 3 and strategic programme 6 of the Biodiversity Focal Area Strategy.
		iii) Regional, sub-regional and national environmental priorities?	NO	
		iv. Complementarity with other interventions	YES	The project emphasized the need to ensure sustainable livelihoods by conserving and promoting the country's biodiversity resources.

¹¹ For Nature of External Context the 6-point rating scale is changed to: Highly Favourable = 1, Favourable = 2, Moderately Favourable = 3, Moderately Unfavourable = 4, Unfavourable = 5 and Highly Unfavourable = 6. (Note that this is a reversed scale)

D	Intended Results and Causality		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating:
8	Is there a clearly presented Theory of Change?		NO		
9	Are the causal pathways from project outputs (goods and services) through outcomes (changes in stakeholder behaviour) towards impacts (long term, collective change of state) clearly and convincingly described in either the logframe or the TOC?		YES	A logframe was presented. It highlighted the key performance indicators, assumptions and risks for the success of the project. The level of joint and synchronized implementation of commitments through a re-organized action plan is recognized as a key test of project achievements.	
10	Are impact drivers and assumptions clearly described for each key causal pathway?		YES	A section was included in the project document on critical factors. Assumptions were however clearly stated in the project logframe and a section on Risk Analysis was also included in the project document	
11	Are the roles of key actors and stakeholders clearly described for each key causal pathway?		YES	The project document includes a stakeholder analysis. It discusses opportunities and challenges of the various project components as it relates to stakeholders and provides description of partner competencies. The roles are described in a generic way and not linked definitively to the key causal pathways	
12	Are the outcomes realistic with respect to the timeframe and scale of the intervention?		YES	Outcomes seemed realistic to realize project results only.	
E	Logical Framework and Monitoring		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating:
13	Does the logical framework	i) Capture the key elements of the Theory of Change/ intervention logic for the project?	YES	The logical framework was well designed to realize project outputs	
		ii) Have 'SMART' indicators for outputs?	YES	The indicators, for the most part were SMART.	
		ii) Have 'SMART' indicators for outcomes?	YES	Expected outcomes were clearly set.	
14	Is there baseline information in relation to key performance indicators?		YES	The baseline data have rather a weak link to key performance indicators	
15	Has the desired level of achievement (targets) been specified for indicators of outputs and outcomes?		YES	Targets were set for the respective indicators	
16	Are the milestones in the monitoring plan appropriate and sufficient to track progress and foster management towards outputs and outcomes?		YES	The milestones seem adequate for tracking project progress	
17	Have responsibilities for monitoring activities been made clear?		YES	Responsibilities for monitoring were clear stated in the monitoring plan	
18	Has a budget been allocated for monitoring project progress?		NO	Monitoring is factored into the project as an integral part of project activities.	
19	Is the workplan clear, adequate and realistic? (eg. Adequate time between capacity building and take up etc)		YES	Work plan is set out very clearly and seemed to have been carefully gone through thought process	
F	Governance and Supervision Arrangements		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)	Section Rating:
20	Is the project governance and supervision model comprehensive, clear and appropriate? (Steering Committee, partner consultations etc.)		YES	Project Governance and supervision model was clear. While there was no narrative to explain how it was going to operate, the diagram was quite clear	
21	Are roles and responsibilities within UN Environment clearly defined?		YES	There were clear roles and responsibilities set	
G	Partnerships		YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers,	Section Rating:

			methods and approaches, key respondents etc)	
22	Have the capacities of partners been adequately assessed?	YES	Reasonable assessment of capacities of partners was made.	
23	Are the roles and responsibilities of external partners properly specified and appropriate to their capacities?	YES	Roles and responsibilities of external partners were noted and clearly described.	
H	Learning, Communication and Outreach	YES/NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating:
24	Does the project have a clear and adequate knowledge management approach?	YES	A knowledge management approach in the form of Anubis was established.	
25	Has the project identified appropriate methods for communication with key stakeholders during the project life? <i>If yes, do the plans build on an analysis of existing communication channels and networks used by key stakeholders?</i>	YES	There is clearly stakeholder analysis and partners and their roles at the country level were clearly defined relative to UN ENVIRONMENT responsibilities	
26	Are plans in place for dissemination of results and lesson sharing at the end of the project? <i>If yes, do they build on an analysis of existing communication channels and networks?</i>	YES	Anubis and the Biosafety Clearing House facilities were identified for the dissemination of results and lessons learned.	
I	Financial Planning / Budgeting	YES/NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating:
27	Are there any obvious deficiencies in the budgets / financial planning at design stage? <i>(coherence of the budget, do figures add up etc.)</i>	NO	Budget was fully been secured for project components at the start of the project	
28	Is the resource mobilization strategy reasonable/realistic? <i>(E.g. If the expectations are over-ambitious the delivery of the project outcomes may be undermined or if under-ambitious may lead to repeated no cost extensions)</i>	NO	No specific resource mobilization strategy has been articulated in the project document	
J	Efficiency	YES/NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating:
29	Has the project been appropriately designed/adapted in relation to the duration and/or levels of secured funding?	YES	Funding has been secured from the GEF	
30	Does the project design make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?	YES	The project built on the outputs of the earlier UN ENVIRONMENT/GEF development project	
31	Does the project document refer to any value for money strategies (ie increasing economy, efficiency and/or cost-effectiveness)?	NO	No value for money analysis was undertaken	
32	Has the project been extended beyond its original end date? <i>(If yes, explore the reasons for delays and no-cost extensions during the evaluation)</i>	YES	Revisions were done to extend duration of the project in order to complete activities	
K	Risk identification and Social Safeguards	YES/NO	Comments/Implications for the evaluation design <i>(e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)</i>	Section Rating:
33	Are risks appropriately identified in both the TOC/logic framework and the risk table? <i>(If no, include key assumptions in reconstructed TOC)</i>	YES	A risk analysis was undertaken and risk levels were identified in the project document	
34	Are potentially negative environmental, economic and social impacts of the project identified and is the mitigation strategy adequate? <i>(consider unintended impacts)</i>	YES	There was an indication of socioeconomic contribution and poverty alleviation potential of the project was described. The project itself was designed to contribute to the protection of human health and the environment.	

35	Does the project have adequate mechanisms to reduce its negative environmental foot-print? (including in relation to project management)	YES	The main aim of the project is to minimize negative environmental effects
L	Sustainability / Replication and Catalytic Effects	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)
36	Was there a credible sustainability strategy at design stage?	YES	Sustainability strategy was not articulated fully but arrangement had been put in place legally and institution frameworks established.
37	Does the project design include an appropriate exit strategy?	YES	A project closing arrangement was put in place
38	Does the project design present strategies to promote/support scaling up, replication and/or catalytic action?	YES	Arrangement had been put in place to promote scaling up of results
39	Did the design address any/all of the following: socio-political, financial, institutional and environmental sustainability issues?	YES	The project design addressed to a reasonable extent socio-political, financial, institutional and environmental sustainability issues.
M	Identified Project Design Weaknesses/Gaps	YES/NO	Comments/Implications for the evaluation design (e.g. questions, TOC assumptions and drivers, methods and approaches, key respondents etc)
40	Were recommendations made by the PRC adopted in the final project design? If no, what were the critical issues raised by PRC that were not addressed.	YES	Recommendations made by the PCR were adopted in the project final design phase.
41	Were there any critical issues not flagged by PRC?	NO	

CALCULATING THE OVERALL PROJECT DESIGN QUALITY SCORE

(An excel file is available to support the calculation of the overall PDQ rating)

	SECTION	RATING (1-6)	WEIGHTING	TOTAL (Rating x Weighting)
A	Nature of the External Context	3	0.4	1.2
B	Project Preparation	6	1.2	7.2
C	Strategic Relevance	5	0.8	4.0
D	Intended Results and Causality	5	1.6	8.0
E	Logical Framework and Monitoring	6	0.8	4.8
F	Governance and Supervision Arrangements	6	0.4	2.4
G	Partnerships	5	0.8	4.0
H	Learning, Communication and Outreach	5	0.4	2.0
I	Financial Planning / Budgeting	5	0.4	2.0
J	Efficiency	5	0.8	4.0
K	Risk identification and Social Safeguards	5	0.8	4.0
L	Sustainability / Replication and Catalytic Effects	5	1.2	6.0
M	Identified Project Design Weaknesses/Gaps	5	0.4	2.0
			TOTAL SCORE (Sum Totals)	51.6
			AVG SCORE (Divide Total Score by 13)	4.0
1 (Highly Unsatisfactory)	< 1.83	4 (Moderately Satisfactory)	>=3.5 <=4.33	
2 (Unsatisfactory)	>= 1.83 < 2.66	5 (Satisfactory)	>4.33 <= 5.16	
3 (Moderately Unsatisfactory)	>=2.66 <3.5	6 (Highly Satisfactory)	> 5.16	

Annex 2: Documentation List

- Project design documents
- Project supervision plan, with associated budget
- Correspondence related to project
- Supervision mission reports
- Steering Committee meeting documents, including agendas, meeting minutes, and any summary reports
- Project progress reports, PIRs, including financial reports submitted
- Management memos related to project
- Other documentation of supervision feedback on project outputs and processes (e.g. comments on draft progress reports, etc.).
- Project revision and extension documentation
- Project Terminal Report (draft if final version not available)
- Specific project outputs: guidelines, manuals, training tools, software, websites, press communiques, posters, videos and other advertisement materials etc.
- Any other relevant document deemed useful for the evaluation
- MTE of MTS
- Formative Evaluation of the UN Environment Program of Work
- Medium Term Strategies
- Programme Frameworks

Annex 3: List of Key Stakeholders – Swaziland

NAME	INSTITUTION	ACTIVITY INVOLVED IN	EMAIL ADDRESS
Prof. A. M. Dlamini	University of Swaziland	National Biosafety Advisory Committee Chairperson (NBAC)	adlamini@uniswa.sz
Mr. Daniel Khumalo	Swaziland Cotton Board (CEO)	Project Steering Committee Chairperson (PSC)	dmkhumalo66@gmail.com
Mr. Isaac Dladla	SEA	Project Management	gdladla@sea.org.sz
Mr. Stephen Zuke	SEA	Project Management	szuke1959@gmail.com
Mr. Bongani Nkhabindze	SEA	Project Implementation	bongani@sea.org.sz
Ms. Dumile Sithole	SEA	Project Implementation	sitholedumile1957@gmail.com
Ms. Noncedo Nkabinde	SEA	Project Implementation	nnkabinde@sea.org.sz
		Director of Finance	
Dr. Diana Earnshaw	University of Swaziland	Designated GMO Detection Lab, Baseline Survey on GMO contamination and PSC Members	earnshaw@uniswa.sz
Dr. Mandla Mlipha	University of Swaziland	Mainstreaming in Tertiary Institutions	mlipha@uniswa.sz
Dr. Lenhle Dlamini	National Curriculum Centre (Director)	Mainstreaming in Schools	lenhledlamini2003@yahoo.co.uk
Mr. Steven Dlamini	National Curriculum Centre (Designer)	Mainstreaming in Schools	stevenbdlamini@gmail.com
Ms. Nomfundo Sukati	National Curriculum Centre (Designer)	Mainstreaming in Schools	nomfundo.sukati@gmail.com
Prof. C. Magagula	University of Swaziland	Public Awareness and Participation Platform	cebisile@uniswa.sz
Mr. Nelson Mavuso	Ministry of Agriculture (Director of Agriculture)	NBAC, PSC	nelsonmavuso@ymail.com
Mr. Similo Mavimbela	Agriculture Research (Chief Research Officer)	NBAC	seemelo.seemelo@gmail.com
Ms. Constance Dlamini	Consultant	Liability & Redress Study	ceezet9@gmail.com
Dr. Phumzile Dlamini	Consultant	Information Exchange & Collaborations	phumiedl@webmail.co.za phumiedlam@gmail.com

List of National Biosafety Advisory Committee (NBAC) Members with their contacts

Abednego Dlamini	adlamini@uniswa.sz
Enock Dlamini	emdlamini@acat.org.sz
Similo Mavimbela	seemelo.seemelo@gmail.com
Nelson Mavuso	nelsonmavuso@ymail.com

Phumzile Mdziniso	mdzinisophumzile@gmail.com
Nobuhle Matsebula	hlebuno0911@gmail.com
Senelisiwe Ngqotheni	sngqotheni@yahoo.com
Ndumiso Ngozo	ndumiso.ngozo@montigny.co.sz
Jabulani Tsabedze	jabuemkholo@gmail.com

List of National Coordination Committee (NCC) with their contacts

Lendle Dlamini	lenhledlamini2003@gmail.com
Steven Dlamini	stevenbdlamini@gmail.com
Nomfundo Sukati	nomfundo.sukati@gmail.com
Musa Hlophe	ms.hlophe@gmail.com
Muzi Tsabedze	mztsabedze04@gmail.com
Gcina Mabuza	mabuzagcina@gmail.com
Robert Khumalo	rkhumalo@yahoo.com
Thembelihle Dlamini	lihle93@gmail.com

Contacts – Ministry of Health

Duduzile Dube	duduzilegrace63@gmail.com
---------------	--

Contacts – Ministry of Agriculture

Nelson Mavuso	nelsonmavuso@ymail.com
Similo Mavimbela	seemelo.seemelo@gmail.com

List of National and International Consultants

Phumzile Dlamini	Local Consultant	phumiedl@webmail.co.za phumiedlam@gmail.com
Micah Masuku	Local Consultant	mbmasuku@uniswa.sz
Constance Dlamini	Local Consultant	ceezet9@gmail.com
Lunga Simelane	Local Consultant	lungasim@gmail.com
Abednego Dlamini	Local Consultant	adlamini@uniswa.sz
Doreen Shumba-Mnyulwa	International Consultant	dmnyulwa@raeinafrica.org.za
Christopher Viljoen	International Consultant	ViljoenCD@ufs.ac.za
Rachel Shibalira	International Consultant	rachelshibalira@gmail.com
Hennie Groenewald	International Consultant	hennie@biosafety.org.za
Lim Li Ching	International Consultant	ching@twnetwork.org

Contacts – Tinkundla

NA	
----	--

Port Officials

Duduzile Dube	duduzilegrace63@gmail.com

Contacts – Some Heads of Schools

Trial Officers – Bt Cotton

Farmers Representatives

Daniel Khumalo	dmkhumalo66@gmail.com
Joconiah Msibi	jmsibi@cottonboard.co.sz

Kwazi Mkhonta	mkwazy@gmail.com
---------------	--

Civil Society Groups

Tsakasile Dlamini	tsakasiledlamini@gmail.com

Team at UNISWA Working on Ex Ante Studies and Socio economics

Micah Masuku	mbmasuku@uniswa.sz
Bongiwe Dlamini	bpdlamini@uniswa.sz
Sotsha Dlamini	

Representatives of Universities

Mandla Mlipha	MESA	mlipha@uniswa.sz
Cebisile Magagula	PAPP	cebisile@uniswa.sz
Abednego Dlamini	PAPP/NBAC	adlamini@uniswa.sz

Annex 4: Evaluation Brief

Terminal Evaluation of the UN Environment Project/Global Environment Facility Project “Capacity Building for the Implementation of the National Biosafety Framework of Swaziland”

Summary

The Swaziland Biosafety project was implemented between May 2012 and December 2017. The UN Environment was the project implementing agency. The project was executed at the national level by the Swaziland Environment Authority (SEA). The objective of the project was to strengthen the individual, institutional capacities as well as the systemic structures and functions in order to implement the national biosafety framework of the Kingdom of Swaziland and fulfil its obligations as a Party to the Cartagena Protocol on Biosafety. To achieve that objective, the project focused mainly on identifying gaps in the implementation of the biosafety framework of the Kingdom, developing the legal and institutional framework for biosafety and developing human and institutional capacity through training and the development of regulations, creating awareness and mainstreaming biosafety into the curricula of primary, secondary and tertiary educational institutions.

Effectiveness

At the end of the project, the key indicators of project performance have substantially been fulfilled. A new cross-sectoral policy coordination framework and a legal regime for the control and management of LMOs which promotes conformity with national guidelines and international standards has been put in place. Substantial work has been undertaken to mainstream biosafety in government agencies, universities and schools in Swaziland. Through substantial public awareness campaigns and the production and dissemination of public information materials key stakeholder groups, in particular government agencies, there is now have a good understanding of the issues involved in the management of LMOs and the need for biosafety. There is, however, more work to be done in this area. Awareness-raising is being considered as a continuing process and more awareness raising activities are planned. The national information portals (clearing houses) that provide access to biosafety information need to be fully developed and synchronized with the CBD Biosafety Clearing house at the CBD Secretariat, Montreal.

A fully functional administrative process is in place and fully integrated into the bureaucracy of the Competent Authority. This evaluation notes however that the focal point for Biosafety is located in the Ministry of Environment and Tourism while the supporting Secretariat and staff for biosafety activities is located within the Swaziland Environment Authority. This, it would seem, can create administrative inefficiencies and challenges. This anomaly should be regularized.

Substantial capacity has been built in biosafety and biotechnology and efforts have been made to mainstream biosafety into elementary, secondary and tertiary education curricula. Basic technological (laboratory) capacity has been built in the country for the identification of LMOs however, there is need to provide trained technical capacity in the laboratory to conduct analysis of the samples.

Efficiency

In general, efficiencies are either built into project design or have been realised through the use of proven models which allowed the project to roll-out activities to a wider stakeholder group, sometimes through workshops and training programmes. The project used existing institutions like the universities and the national Curriculum Centre to mainstream biosafety into school curricula nationwide.

The use of partnerships contributed to both effectiveness and efficiency. The close involvement of the relevant ministries, government departments and universities, increased efficiency as project implementation benefited from their better institutional knowledge and memory, contacts and expertise

Inefficiencies involved slow project start-up and delays in implementation of some activities for a variety of reasons including, changes in the leadership of the program for a variety of reasons and the fragmentation in the biosafety program where the focal point for biosafety is located in the Ministry of Tourism, Environment and Communication while project implementation is located within the Swaziland Environment Authority.

The Evaluation Team observes that the project design underestimated the time frame for project execution. The time estimated was far too short to complete the project as scheduled. It is not surprising that project extensions became necessary and at the time of this evaluation almost 6 months after official project closure some activities were still in the process of being completed.

Project Management

UN Environment was responsible for project implementation. Its specific responsibilities were supervision, technical advisory support, management, evaluation and reporting. The UNEP/GEF Task Manager who was responsible for the project was apparently incredibly active in moving the project forward. The project was executed at the country level by the Swaziland (SEA) -National Executing Agency (NEA) and Competent Authority. The Authority had a designated National Project Coordinator who was supported by an administrative and a financial assistant. The National Project Coordinator was accountable to SEA and to UN Environment for the delivery of agreed project outputs. The PCU developed annual work plans and plan targets were adjusted depending on the extent of progress achieved and this was done on a routine basis. Task teams comprising of participating institutions that were sub-contracted through the Project Management Unit, with sufficient specialised knowledge to ensure that project outputs are delivered on time and of the required quality, were used to execute different components of the project.

A Project Steering Committee (PSC) was established at the national level to provide policy guidance to the project on political and administrative issues. The PSC also, provided technical support to the project.

Lessons Learned

1. The partnership forged with the media served as an important bridge between the public, scientists and regulators. The media was engaged and empowered to promote biosafety awareness. Informed media involvement enhanced the quality, depth and accuracy of information in news articles and expanded the range of reporting.
2. Mainstreaming biosafety into the curricula of educational institutions and embedding the project secretariat in the Competent Authority are innovative and constitute replicable options for other countries and in other similar projects.
3. The signing of Memoranda of Agreement with all the national partners (Environmental Health (Port Health), University of Swaziland (Detection Lab), University of Swaziland (Mainstreaming in the curricula), National Curriculum Centre, Revenue Authority (Institutional), Police (Institutional), Ministry of Agriculture and Ministry of ICT,) during the project implementation serves as a good example for mainstreaming of biosafety into national systems.
4. Information sharing mechanism by way of workshops, information materials, etc. to parliamentarians and members of the senate has facilitated the law making in Swaziland is worth replicating in future projects.
5. Engagement of a wide cross-section of stakeholders at all levels, including local communities, is important in projects in which the achievement of the expected long-term impacts is highly dependent on their actions. Further, identifying 'champions' among the different groups of stakeholders not only contributes to successful project implementation but also facilitates progress along the causal pathway towards global environment objectives in the post-project period.
6. This evaluation suggests that in future follow-up projects a clear distinction should be made between monitoring for adaptive project management and monitoring for reporting purposes and resources allocated to both to enable adequate data collection and reporting.

Annex 5: Brief Resumes of the Consultants

Segbedzi NORGBEY, Ph. D. (Lead Consultant)

As Chief Executive Officer of the Sustainable Development Group (SDG) International, I coordinate a group of international professionals to provide cutting edge professional and advisory services to governments, intergovernmental organizations and NGOs on development issues in the fields of Agriculture, Environment and Development, Biodiversity/Biosafety, Gender Studies, Science and Technology Education with specific focus on Program Planning, Research, Program/Project Management, Monitoring and Evaluation.

For about 12 years, I directed and managed the financial and human resources of the Evaluation Office in the UN Environment. I provided intellectual leadership and guidance to the Evaluation Office, led the development of UN Environment's Evaluation policy and provided strategic guidance in its implementation. I developed monitoring and evaluation plans and conducted independent evaluations of UNEP's programs including those aimed at providing strategic input into program planning. The Evaluation Synthesis reports I have prepared for the Governing Council have been commended in the UN Secretary General's report to the General Assembly. I have led the development of tools, guidelines, processes and methods for undertaking monitoring and evaluations, managed the work of a large number of independent consultants and promoted partnership with other UN systems organizations, through effective participation in the United Nations Evaluation Group and bilaterally by serving on Evaluation Management Groups in UNDP, GEF, UNEG, and UN Habitat.

Prior to my appointment as Head of Evaluation, I worked as Senior Program Officer responsible for coordinating, project design, formulation, review and approval methodologies, guidelines and procedures to increase the efficiency of the respective process, especially by making them consistent with project design criteria used by the Global Environmental Facility (GEF) and donors. Further, I ensured that the processes correspond with UNEP's requirements for transparency and oversight. As Secretary to UNEP's Project Approval Group and the Technical Peer Review Committee, I have done the necessary preparatory work for meetings of the committees and organized and conducted numerous meetings. I have reviewed numerous projects and provided guidance to program/ project managers on project design and formulation.

Earlier in my career I worked for The Michigan Department of Environmental Quality for 14 years to conduct assessments of hazardous waste sites and manage brownfields programs.

Charles Gbedemah (Supporting Consultant)

Education

Master of Philosophy Degree in Mycology, University of Ghana, Legon (1991)

Core skills: Includes Biosafety programme design/evaluation, Science programme formulation, technical support, policy development and Capacity building, Institutional Capacity Assessments, Institutional Functional review.

Professional experience

- May 2016 – February 2017, Director, Science and Policy Support Division, Secretariat of the Convention on Biological Diversity (CBD), Montreal, Canada;
- May 2014 – December 2016, Lead Director, Functional Review of the Secretariat of the Convention on Biological Diversity (CBD), Montreal, Canada;
- January 2007 – April 2016, Director, Biosafety Division, Secretariat of the Convention on Biological Diversity (CBD), Montreal, Canada;
- June 2001 – December 2006: Regional Coordinator for Africa, Biosafety, UNEP/GEF Coordination Office, Nairobi, Kenya;
- January 1995 – June 2006: Africa Project Scientific Consultant, Ghana Atomic Energy Commission, Accra, Ghana;
- January 1979 – January 1995: Scientific Officer, Ghana Atomic Energy Commission, Accra, Ghana.

Annex 6: Quality Assessment of the Evaluation Report

Evaluation Title:

Terminal Evaluation of the UN Environment/Global Environment Facility Project: “Capacity Building for the Implementation of the National Biosafety Framework of Swaziland”

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.

	UNEP Evaluation Office Comments	Final Report Rating
Substantive report quality criteria		
Quality of the Executive Summary: Does the executive summary present the main findings of the report for each evaluation criterion and a good summary of recommendations and lessons learned? (Executive Summary not required for zero draft)	The summary covers the main criterion as well as the lessons learned and recommendations.	5
Project context and project description: Does the report present an up-to-date description of the socio-economic, political, institutional and environmental context of the project, including the issues that the project is trying to address, their root causes and consequences on the environment and human well-being? Are any changes since the time of project design highlighted? Is all essential information about the project clearly presented in the report (objectives, target groups, institutional arrangements, budget, changes in design since approval etc.)?	The essential information on the project context is sufficiently covered	5
Strategic relevance: Does the report present a well-reasoned, complete and evidence-based assessment of strategic relevance of the intervention in terms of relevance of the project to global, regional and national environmental issues and needs, and UNEP strategies and programmes?	Section adequately covers the required aspects of relevance	5
Achievement of outputs: Does the report present a well-reasoned, complete and evidence-based assessment of outputs delivered by the intervention (including their quality)?	Assessment of output delivery is well- reasoned and is presented by each component. Evidence (mostly in the form of web links to relevant sites/documents) is provided in most cases	5
Presentation of Theory of Change: Is the Theory of Change of the intervention clearly presented? Are causal pathways logical and complete (including drivers, assumptions and key actors)?	The TOC is well reasoned and draws linkages between the planned outputs, their direct outcomes, and the transition from outcome to impact. Drivers and assumptions are also discussed adequately	5

	UNEP Evaluation Office Comments	Final Report Rating
Effectiveness - Attainment of project objectives and results: Does the report present a well-reasoned, complete and evidence-based assessment of the achievement of the relevant outcomes and project objectives?	The assessment of the effectiveness criteria is very detailed and well-reasoned. Evidence (e.g. citing examples of actual events, activities, documentation) have been included.	6
Sustainability and replication: Does the report present a well-reasoned and evidence-based assessment of sustainability of outcomes and replication / catalytic effects?	All three main dimensions of sustainability have been assessed well and supported with evidence. Cross referencing to other sections of the report is used to further support the assessment. The section ends with an assessment of the replication/catalytic effects.	6
Efficiency: Does the report present a well-reasoned, complete and evidence-based assessment of efficiency? Does the report present any comparison with similar interventions?	The assessment of efficiency is adequately supported with examples of cost/time saving measures and shortfalls experienced during implementation.	5
Factors affecting project performance: Does the report present a well-reasoned, complete and evidence-based assessment of all factors affecting project performance? In particular, does the report include the actual project costs (total and per activity) and actual co-financing used; and an assessment of the quality of the project M&E system and its use for project management?	The required sub-criteria are all covered though the consultant used a previous reporting format. The assessment of these factors has been done to varying degrees of detail.	5
Quality of the conclusions: Do the conclusions highlight the main strengths and weaknesses of the project, and connect those in a compelling story line?	The conclusions section highlights the main successes and shortcoming of the project's implementation and performance. A conclusion on the key strategic questions of the evaluation are however not explicitly addressed.	4
Quality and utility of the recommendations: Are recommendations based on explicit evaluation findings? Do recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented?	Though the recommendations are based on findings presented in the report, Consultants were requested to improve how they are formulated so as to make them more actionable. By indicating the context from which the recommendation is based, then specify ('who?' 'what?' 'where?' 'when?') the actions necessary to correct existing conditions or improve operations. Recommendations have been edited in the final report version to improve quality/utility	4.5
Quality and utility of the lessons: Are lessons based on explicit evaluation findings? Do they suggest prescriptive action? Do they specify in which contexts they are applicable?	Draft report: The lessons learned are based on findings presented in the report. Their formulation as stand-alone lessons learned statements could however be improved to enhance wider applicability. Minor changes made in the final report version	5
Report structure quality criteria		
Structure and clarity of the report: Does the report structure follow EO guidelines? Are all requested Annexes included?	Draft report: Report is for the most part complete though an older	5

	UNEP Evaluation Office Comments	Final Report Rating
	format was used.	
Evaluation methods and information sources: Are evaluation methods and information sources clearly described? Are data collection methods, the triangulation / verification approach, details of stakeholder consultations provided? Are the limitations of evaluation methods and information sources described?	The evaluation methods and information sources are described adequately. Limitations are also described.	6
Quality of writing: Was the report well written? (clear English language and grammar)	Quality of writing is good. Only minor editing required.	5
Report formatting: Does the report follow EO guidelines using headings, numbered paragraphs etc.	The draft did not follow the updated report format prescribed and a previous guideline was used. This notwithstanding, all relevant content has been captured satisfactorily.	5
OVERALL REPORT QUALITY RATING		S

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.

At the end of the evaluation compliance of the evaluation process against the agreed standard procedures is assessed, based on the table below. *All questions with negative compliance must be explained further in the table below.*

Evaluation Process Quality Criteria	Compliance	
	Yes	No
Independence:		
1. Were the Terms of Reference drafted and finalised by the Evaluation Office?	Yes	
2. Were possible conflicts of interest of proposed Evaluation Consultant(s) appraised and addressed in the final selection?	Yes	
3. Was the final selection of the Evaluation Consultant(s) made by the Evaluation Office?	Yes	
4. Was the evaluator contracted directly by the Evaluation Office?	Yes	
5. Was the Evaluation Consultant given direct access to identified external stakeholders in order to adequately present and discuss the findings, as appropriate?	Yes	
6. Did the Evaluation Consultant raise any concerns about being unable to work freely and without interference or undue pressure from project staff or the Evaluation Office?		No
7. If Yes to Q6: Were these concerns resolved to the mutual satisfaction of both the Evaluation Consultant and the Evaluation Manager?		
Financial Management:		
8. Was the evaluation budget approved at project design available for the evaluation?		No
9. Was the final evaluation budget agreed and approved by the Evaluation Office?	Yes	
10. Were the agreed evaluation funds readily available to support the payment of the evaluation contract throughout the payment process?		No
Timeliness:		
11. If a Terminal Evaluation: Was the evaluation initiated within the period of six months before or after project operational completion? Or, if a Mid Term Evaluation: Was the evaluation initiated within a six month period prior to the project's mid-point?		No
12. Were all deadlines set in the Terms of Reference respected, as far as unforeseen circumstances allowed?		No
13. Was the inception report delivered and reviewed/approved prior to commencing any travel?	Yes	
Project's engagement and support:		
14. Did the project team, Sub-Programme Coordinator and identified project stakeholders provide comments on the evaluation Terms of Reference?		No
15. Did the project make available all required/requested documents?	Yes	
16. Did the project make all financial information (and audit reports if applicable) available in a timely manner and to an acceptable level of completeness?	Yes	
17. Was adequate support provided by the project to the evaluator(s) in planning and conducting evaluation missions?	Yes	
18. Was close communication between the Evaluation Consultant, Evaluation Office and project team maintained throughout the evaluation?		No
19. Were evaluation findings, lessons and recommendations adequately discussed with the project team for ownership to be established?		
20. Did the project team, Sub-Programme Coordinator and any identified project stakeholders provide comments on the draft evaluation report?	Yes	
Quality assurance:		
21. Were the key evaluation questions in the evaluation Terms of Reference peer-reviewed?		No
22. Were the evaluation Terms of Reference, including the key evaluation questions, peer-reviewed?		No
23. Was the TOC in the inception report peer-reviewed?		No
24. Was the quality of the draft/cleared report checked by the Evaluation Manager and	Yes	

Peer Reviewer prior to dissemination to stakeholders for comments?		
25. Did the Evaluation Office complete an assessment of the quality of the both the draft and final reports?	Yes	
Transparency:		
26. Was the draft evaluation report sent directly by the Evaluation Consultant to the Evaluation Office?	Yes	
27. Did the Evaluation Manager disseminate (or authorize dissemination) of the cleared draft report to the project team, Sub-Programme Coordinator and other key internal personnel (including the Reference Group where appropriate) to solicit formal comments?	Yes	
28. Did the Evaluation Manager disseminate (or authorize dissemination) appropriate drafts of the report to identified external stakeholders, including key partners and funders, to solicit formal comments?	Yes	
29. Were all stakeholder comments to the draft evaluation report sent directly to the Evaluation Office		
30. Did the Evaluation Consultant(s) prepare a response to all comments?		
31. Did the Evaluation Office share all comments and Evaluation Consultant responses with all those who were invited to comment?		

Provide comments / explanations / mitigating circumstances below for any non-compliant process issues.

<u>Process Criterion Number</u>	<u>Evaluation Office Comments</u>
	The terminal evaluation reports for the biosafety portfolio were not assigned a peer reviewer