

# **Mid-Term Review Report**

**for  
the UNEP/GEF Project “Developing the Microbial  
Biotechnology Industry from Kenya’s Soda Lakes in line  
with the Nagoya Protocol” “GEF ID Number 5626”**

Submitted to:

**The UN Environment Programme**

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## Acknowledgements

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## Consultant's Biography

Dr. Julian K. Bagyendera has over 27 years of work experience in conducting baseline, mid and end-term evaluations for programmes in: Climate Change (CC), environment, agriculture, HIV/AIDS, population, reproductive health, malaria, socio-economic strengthening, social protection, education, gender mainstreaming and integration, human and child rights, governance, advocacy, private/public partnerships, capacity building and community development. She has wealth of experience in managing complex programs with multiple implementers and funding agencies with particular reference to: the World Bank, GEF, UNRCO, UNDP, UNEP Kenya, UNICEF, UNAIDS, UNFPA, UN Women, WHO, CDC, EU, USAID, DoD, US Embassy, Pearce Corps, Iris Group, DFID, DANIDA, SIDA, Italian Corporation and Irish Aid. Others are Makerere School of Public Health, Uganda AIDS Commission, Comic Relief, Danish Aid, Amref Health Africa, and Save the Children International. She has international experience working in Uganda, South Africa, Kenya, Tanzania, Rwanda, P.R. China, Ethiopia, Liberia, Malawi, U.S.A, Thailand, Netherlands and Canada among others.

As a team leader, she has worked as an international and national consultant for over 60 related assignments. These include midterm review of GEF/UNEP evaluating SLM/SFM project in Kenya, Terminal Evaluation of GEF/Conservation International Program on Strengthening the Capacity of Institutions in Uganda to Comply with the Transparency Requirements of the Paris Agreement as well as end-term evaluation for World Bank (WB)/GEF terminal evaluation for enhancing performance and accountability of social service contracts in Uganda; evaluation of WB Strategic Country Cluster Evaluation (SCCE). She developed the Uganda national CC indicators and facilitated a series of CC mainstreaming workshops for key sectors supported by USAID/Feed the Future. Other related are end-term evaluation for: WB/GPSA project on Enhancing Performance and Accountability of Social Service Contracts in Uganda; developed Liberia Country Program for EU/UN Spotlight to address GBV and SRHR issues, UNAIDS/Geneva HIV/Social Protection Assessment Malawi and Uganda. Currently, she works as the Executive Director/Team Leader Evaluations for Provide and Equip (P&E) Ltd, an M&E/Management Consultancy Firm headquartered in Uganda. She previously worked in several senior project management positions that include: Chief of Party, Deputy Chief of Party, M&E Program Director, Senior M&E Technical Advisor, M&E Coordinator and M&E Manager. She holds PhD in Project Management (with a thesis in M&E), MBA and BA (Social Sciences). Please refer to **Annex 8** for the full curriculum vitae of the consultant.

## Table of Contents

Acknowledgements.....	ii
List of Tables.....	v
Acronyms/Abbreviations.....	vi
Project Identification Summary.....	ii
Executive Summary.....	iv
1.0 Project Overview.....	1
1.1 Project Rationale.....	5
2.0 Mid-Term Review Methods.....	8
2.1 Review Approach.....	8
2.2 Methodology.....	8
3.0 Review Findings.....	10
A. Strategic Relevance.....	10
1. Alignment UNEP Medium Term Strategy, Programme Work and GEF Strategic Priorities.....	10
2. Alignment UNEP/GEF Strategic Priorities.....	10
3. Relevance Regional, Sub-Regional and National Environmental Priorities.....	10
4. Complementarity with Existing Interventions.....	11
B. Quality of Project Design.....	11
C. Nature of External Context.....	11
D. Effectiveness.....	12
1. Achievement of Direct Outputs.....	13
2. Achievement of Direct Outcomes.....	13
3. Likelihood of Impact.....	15
E. Financial Management.....	17
1. Rate Spending.....	17
2. Quality and Consistency of Financial Reporting.....	18
3. Communication between Finance and Project Management Staff.....	20
F. Monitoring and Reporting.....	25
1. Monitoring Design and Budgeting.....	25
2. Monitoring of Implementation.....	26
3. Project Reporting.....	26
4. Project Steering Committee Meetings.....	27
G. Sustainability.....	30
1. Socio-political Sustainability.....	30
2. Financial Sustainability.....	30
3. Institutional Sustainability.....	31
4.0 Factors Affecting Performance.....	31
1. Preparation Readiness.....	31
2. Quality of Project Management and Supervision.....	32
3. Stakeholder's Participation Cooperation.....	33
4. Responsiveness to Human Rights and Gender Equity.....	34
5. Country Ownership Driven-ness.....	34
6. Communication and Public Awareness.....	34
5.0 Conclusions, Lessons Learnt and Recommendations.....	35
5.1 Conclusions.....	35
5.1.1 Summary MTR Rating by Criteria.....	35
5.2 Lessons Learned.....	38
5.3 Recommendations.....	39
Annex 1A: Output Indicator Performance Tracking Table.....	44
Annex 1B: Outcome Indicator Tracking Table.....	54
Annex 2: List of Individuals Consulted during the MTR Process.....	61
Annex 3: Project Results Framework.....	62
Annex 4: Project Design Quality.....	66
Annex 5: Review Terms of Reference.....	72
Annex 6: List of Documents Consulted During the Review.....	75
Annex 7: Partner Implementation Matrix.....	76
Annex 8: Consultant's Curriculum Vitae.....	82

## List of Tables

Table 1: Roles and Responsibilities of Key Partners.....	1
Table 2: Total Project Cost .....	6
Table 3: Project Budget and Expenditure .....	7
Table 4: Achievements by Outputs .....	13
Table 5: Outcome Achievement Rating.....	14
Table 6: Project Budget and Expenditure .....	18
Table 7: Status of co-financing as per CEO Endorsement Request.....	19
Table 8: Sub-Awards to Partners.....	20
Table 9 : Summary MTR Rating by Criteria .....	36
Table 10: Lessons Learned .....	38
Table 11: Recommendations .....	39

## Acronyms/Abbreviations

ABS	Access and Benefit Sharing	MTA	Material Transfer Agreement
BASF	Badische Anilin and Soda Fabrik	NACOSTI	National Commission for Science, Technology and Innovation
CBD	Conservation of Biological Diversity	NEMA	National Environment Management Authority
CITES	Convention for International Trade in Endangered Species	NESC	National Economic and Social Council
DAAD	Deutscher Akademischer Austauschdienst Dienst	NPIF	Nagoya Protocol Implementation Fund
DELIC	Division of Environmental Law and Conventions	NSTP	Nairobi Science and Technology Park
DEPI	Division of Environmental Policy Implementation	OUV	Outstanding Universal Value
DMSZ	Deutsche Sammlung von Mikroorganismen und Zellkulturen	PC	Project Coordinator
EA	Executing Agency	PCA	Project Cooperation Agreement
EARS	East Africa Rift Valley System	PIC	Prior Informed Consent
EMCA	Environment Management and Coordination Act	PIR	Project Implementation Report
GBDI	Global Biosciences Development Institute	PSC	Project Steering Committee
GEF	Global Environment Facility	RAMSAR	International Convention on Wetlands
IA	Implementing Agency	SDGs	Sustainable Development Goals
ICA	Internal Cooperation Agreement	STI	Science, Technology and Innovation
IBR	Institute of Biotechnology Research	TC	Technical Committee
ICIPE	International Centre for Insect and Plant Entomology	UN	United Nations
IOCD	International Organisation for Chemical Sciences and Development	UNDAF	United Nations Development Assistance Framework
IPR	Intellectual Property Rights	UNEP	United Nations Environment Programme
ITPGFA	International Treaty on Plant Genetic Food and Agriculture	UNEP DELC	UNEP Division of Laws and Conventions
IUCN	International Union for Conservation of Nature	UNEP DEPI	UNEP Division of Environmental Policy Implementation
JKUAT	Jomo Kenyatta University of Agriculture and Technology	UNEP ROA	Regional Office for Africa
KIRDI	Kenya Industrial Research and Development Institute	UNEP	UNEP World Conservation Monitoring Centre
KWS	Kenya Wildlife Service	WCMC	United Nations Education, Scientific and Cultural Organization
M&E	Monitoring and Evaluation	UNESCO	United Nations Education, Scientific and Cultural Organization
MAT	Mutually Agreed Terms	UoN	University of Nairobi
		USA	United States of America
		WCMA	Wildlife Conservation and Management Act

## Project Identification Summary

<b>Project Title:</b>	Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol
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<b>Implementing Agency:</b>	UNEP Ecosystems Division
<b>Executing Agencies:</b>	First UNEP Division of Environmental Laws and Conventions (UNEP DELC) and then Regional Office for Africa (ROA), later known as UNEP Africa Office Kenya Wildlife Service (KWS)

<b>Project partners:</b>	Jomo Kenyatta University of Agriculture and Technology (JLUAT) Jomo Kenyatta University of Agriculture and Technology Enterprises Deutsche Sammlung von Mikroorganismen und Zellkulturen (DSMZ) Verenium Corporation, which was acquired by Badische Anilin und Soda Fabrik (BASF) University of Nairobi University of Nairobi Science and Technology Park Kenya Industrial Research and Development Institute (KIRDI) Rift Valley Textiles (RIVATEX) - Moi University Company Kenya Industrial Property Institute (In the CEO ER under output 3.1.1) Moi University Dudutech – brought on board as a new industrial partner handling biopesticides
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<b>Geographical Scope:</b>	National - Kenya
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<b>Participating Countries:</b>	Kenya
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<b>GEF project ID:</b>	5626	<b>IMIS number*<sup>1</sup>:</b>	GFL-5060-2711-4nnn
<b>Focal Area(s):</b>	Biodiversity	<b>GEF OP #:</b>	-
<b>GEF Strategic Priority/Objective:</b>	BD-4	<b>GEF approval date*:</b>	5 <sup>th</sup> December 2013
<b>UNEP approval date:</b>	15 <sup>th</sup> April 2014	<b>Date of first disbursement*:</b>	13 <sup>th</sup> November 2014
<b>Actual start date<sup>2</sup>:</b>	17 <sup>th</sup> November 2014	<b>Planned duration:</b>	60 months
<b>Intended completion date*:</b>	31 <sup>st</sup> August 2019	<b>Actual or Expected completion date:</b>	30 <sup>th</sup> June 2023
<b>Project Type:</b>	Medium-sized project	<b>GEF Allocation*:</b>	Project grant: \$ 913,265 Agency fee: \$86,735 Total: \$1,000,000
<b>PPG GEF cost*:</b>	None	<b>PPG co-financing*:</b>	N/A
<b>Expected MSP/FSP Co-financing*:</b>	\$1,751,845	<b>Total Cost*:</b>	\$2,665,110
<b>Mid-term review/eval. (Planned date):</b>	31 <sup>st</sup> December 2016	<b>Terminal Evaluation (actual date):</b>	2022
<b>Mid-term review/eval. (Actual date):</b>	April-June 2021	<b>No. of revisions*:</b>	ICA was revised twice – Last revised 03.03.2021 PCA was revised once – Last revised 29.08.2019, but is now expired
<b>Date of last Steering Committee meeting:</b>	28 <sup>th</sup> August 2020	<b>Date of last Revision*:</b>	3 <sup>rd</sup> March 2021
<b>Disbursement as of 30 June 2021*:</b>	\$600,989	<b>Date of financial closure*:</b>	31 <sup>st</sup> Dec 2023
<b>Date of Completion<sup>3</sup>*:</b>	31 <sup>st</sup> December 2023 for the ICA between Ecosystem	<b>Actual expenditures reported as of 30<sup>th</sup> June 2021</b>	US\$ 117,431 by submission of the 1 <sup>st</sup> draft MTR report.

<sup>1</sup> Fields with an \* sign (in yellow) should be filled by the Fund Management Officer

<sup>2</sup> Only if different from first disbursement date, e.g., in cases where a long time elapsed between first disbursement and recruitment of project manager.

<sup>3</sup> If there was a "Completion Revision" please use the date of the revision.

	Division and UNEP Africa Office		An additional USD 206,631 was uploaded on 23 <sup>rd</sup> July 2021, hence the total of USD 367,620
<b>Total co-financing realized as of 30<sup>th</sup> June 2021</b>	0	<b>Actual expenditures entered in IMIS as of 30<sup>th</sup> June 2021</b>	\$ 367,620
<b>Leveraged financing:<sup>4</sup></b>	<ul style="list-style-type: none"> <li>• UNDP - USD 350,000</li> <li>• ABS Initiative support - USD 10,000</li> <li>• County Government of Baringo = KES 1,500,000</li> </ul>		

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<sup>4</sup> See above note on co-financing



## Executive Summary

### Background and Methodology

1. The United Nations Environment Programme (UNEP) is implementing a Global Environment Facility (GEF) project titled **"Developing the Microbial Biotechnology Industry From Kenya's Soda Lakes in Line with the Nagoya Protocol"** executed by the UNEP Regional Office for Africa (ROA), now known as Africa Office through the Kenya Wildlife Service (KWS) and the following sub-partners: University of Nairobi (UoN), Jomo Kenyatta University of Agriculture and Technology (JKUAT), Moi University, Kenya Industrial Research and Development Institute (KIRDI), University of Nairobi Science and Technology Park and Jomo Kenyatta University of Agriculture and Technology Enterprises, Rift Valley Textiles (RIVATEX) and Dudutech. The project sought to utilize microbial genetic resources within the Kenyan soda lakes for research, development and commercialization of industrial enzymes and biopesticides for improved resource management and livelihoods in compliance with the Nagoya Protocol on Access and Benefit Sharing (ABS).
2. The Mid-Term Review (MTR) was undertaken to assess whether the project was on-track, problems or challenges encountered and required corrective actions.
3. The MTR was undertaken between May and August 2021 through a participatory approach employing a mix of quantitative and qualitative methods. Data collection methods included desk review, Key Informant Interviews (KIIs) and in-depth interviews. Data was collected virtually (skype, zoom and telephone) due to COVID-19 lockdown.

### Overall Rating of the Project and Main Findings

4. The rating of performance was based on UNEP Evaluation Criteria per assessment category. For instance, under outputs, if less than 20% of the planned/approved outputs is fully delivered, it is rated highly unsatisfactory, 21- 40% is rated unsatisfactory, 41-60% is rated moderately unsatisfactory, 61-80% is rated moderately satisfactory, 81-99% is rated satisfactory, while 100% is rated highly satisfactory.
5. The overall project rating was unsatisfactory. The project performed well under relevance, project design, and sustainability. The low performance was particularly under achievements versus targets, financial management, communication/levels of reporting, efficiency and reporting as discussed below per evaluation criteria below. These findings are in line with the assessment by the Office of Internal Oversight Services (OIOS) Audit Report of 14<sup>th</sup> September 2020, which stated that the deliverables outlined in the logical framework of the project did not have measurable performance indicators. As a result, OIOS could not establish the basis for the percentage of implementation indicated in the performance reports.

### A. Strategic Relevance

6. The strategic relevance rating was satisfactory. The project is aligned to the UNEP Medium Term Strategy (MTS), Programme of Work (POW), UN Environment's policies and strategic priorities and GEF strategic priorities. Although the CEO Endorsement Request (CEO ER) does not explicitly indicate clear alignment to the MTS and POW, the content and focus as well as project interventions were very well aligned. The project is relevant to national environmental priorities and addresses environmental concerns and needs of the communities through anticipated the Nagoya Protocol on Access and Benefit Sharing (ABS) obligations as well as environmentally friendly enzymes usage and bio-pesticides application.

### B. Quality of Project Design

7. The quality of project design was rated satisfactory (Annex 4). The CEO ER includes a comprehensive analysis of external context, problem statement, project framework and strategic relevance to global, national and local community priorities. The CEO ER lists key stakeholders in the project. Although the institutional and implementation arrangements were included in the CEO ER, they were not adequately defined and did not clarify specific roles of all key parties on the project, such as DELC, KWS and sub-partners. In addition, there was no stand-alone project document, hence activities were not stated in the CEO ER. The CEO ER did not include the theory of change (ToC), but the consultant has developed it as part of MTR deliverables (Figure 1). The results framework lacked an elaborate monitoring plan and outputs were stated as activities rather than results. Some outcomes such as 3.1, 4.1 read like outputs rather than high level results. There were no objective indicators while some outcomes had indicators that were not SMART and measurable. Indicators and targets were not correctly stated, they were stated as results.

Some outputs do not link directly to the outcomes and some targets do not necessarily match outcomes. There was no standalone and comprehensive project exit strategy.

### C. Nature of External Context

8. The nature of external context was rated moderately favourable. The infrastructure such as internet, telephone and the road network were generally favourable and the project had strong political support. Factors reported to have affected implementation included floods around the rift valley lakes including L. Bogoria in October 2019 and May 2020, which temporarily cut off access to the sample collection area and affected the acidity as well as alkalinity of samples. The 2017/18 post-election violence temporality made it impossible to engage communities and limited sample collection. The COVID-19 pandemic due to the complete lockdown in 2020 and partial lockdown in 2021 led to closure of universities and laboratories and curtailed travel for sample collection. However, the MTR noted that these incidences such as floods and post-election violence were for a limited time and by the time COVID-19 lockdown occurred, most of the activities ought to have been completed.

**D. Effectiveness:** Effectiveness was rated unsatisfactory since only 6 (26.1%) out of 23 outputs were fully achieved (*as per UNEP Evaluation Criteria; if 21-40% of the planned/approved outputs fully delivered, it is rated unsatisfactory*) and only 1 (11.1%) out of 9 outcomes was fully achieved as detailed below.

9. *Outputs:* The project had a total of 23 outputs, of which only 6 (26.1%) had been fully achieved, 1 (4.3%) had achieved 81 - 99%, 7 (30.4%) had achieved 61-80%, 4 (17.4 %) had achieved 41- 60%, 2 (8.7%) had achieved 21- 40%, while 3 (13.1%) had achieved 0 -20%, as detailed in Annex 1A. Overall, the project had not yet achieved most of the outputs, which indicates a high likelihood of not achieving most outputs even after the anticipated no cost extension that will end in December 2023.

#### Output Achievement Rating

No of Outputs Attained	List of Outputs	Achievement of Target (%)
6 (26.1%)	1.1.1, 1.1.2, 1.2.3, 2.1.3, 3.1.2 & 4.1.1	100%
1 (4.3%)	2.1.1	81-99%
7 (30.4%)	1.2.1, 1.2.2, 2.1.2, 1.2.4, 3.1.3, 3.2.1, & 4.1.2	61-80%
4 (17.4 %)	1.1.3, 2.3.1 2.4.1 & 3.2.2	41-60%
2 (8.7%)	2.2.1 & 2.3.2	21-40%
3 (13.1%)	2.2.2, 3.1.1 & 3.1.4	0-20%
<b>Total = 23</b>		

10. *Outcomes:* The project had 9 outcomes and of which only 1 (11.1%) was fully achieved at 100%, 1 (11.1%) had achieved 81 - 99%, 6 (66.7%), had achieved 61-80%, 1 (11.1%) had achieved 41-60%, as presented in the table below and as detailed in Annex 1A. Some of the partially achieved outcomes were those most important to attain intermediate states/impact, such biopesticide trials hence delaying subsequent activities.

#### Outcome Achievement Rating

No.	Outcomes	No. of Indicator Targets	% Achievement
1.	1.1 Outcome Policy, legal and regulatory frameworks on ABS upgraded in compliance with the provisions of the Nagoya Protocol	2	70%
2.	1.2 ABS institutionalized in protected areas as a tool for enhanced conservation and livelihood improvement	4	80%
3.	2.1 At least 1 potential microbial isolate characterized and deposited at the culture collection centre at JKUAT	2	90%
4.	2.2 At least 1 enzyme product developed for agro-processing starch and fuel, textile, food and beverage industries	1	80%
5.	2.3 At least 1 biopesticide for enhanced seed and seedling treatment developed by the participating Kenyan institutions and the private companies	2	75%
6.	2.4 A living library of Kenyan Soda lakes Microorganisms established at JKUAT	2	100%
7.	3.1 Technology transferred to local research institutions and protected area systems management	1	50%

8.	3.2 An effective bioinformatics system in Kenya at KWS for Soda lakes microbial discovery to act as a system for monitoring and evaluation established	1	80%
9.	4.1 ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources	1	80%

11. The main project achievements at outcome level were: strengthened ABS related legislative and policy framework; one stop shop for permitting through establishment of the national integrated online permitting system; increased awareness on ABS and benefits of sustainably managing resources as well as institutionalisation of ABS at local and national levels. Others are enhanced ABS capacity through training and development of guidelines for PIC and MAT; establishment of the national culture collection centre; development of L. Bogoria Management Plan and inclusion of bioprospecting in the Wildlife Policy 2020 and the Wildlife Strategy 2030.

*The MTR noted that the project has been slow on sample collection and enzyme trials which has consequently delayed other activities particularly those for the private sector relating to transfer of technologies, production and commercialisation of microbial biopesticides.*

12. The MTR noted that project implementation did not closely adhere to the CEO ER in some areas. For instance, the project had planned for more than one lake, under output 1.1.3 (Bogoria, Elementaita and Simbi Nyaima), but had only been working around L. Bogoria. The CEO ER includes two management plans, so far only one has been developed. It is hoped that the second plan will be developed before the project ends.

13. *Internal factors that contributed to delayed project completion included:*

- Delayed on boarding of partners (KWS signed the Project Cooperation Agreement (PCA) in 2014 but partners signed in 2017 and some received funds as late as 2018, while Dudutech signed in 2019); which led to delayed interventions for industrial partners due to dependence on accomplishments of other partners' work.
- The Verenum Corporation and Deutsche Sammlung von Mikroorganismen und Zellkulturen (DSMZ) were the key private sector entities, however, they did not participate in the project and the MTR could not establish substantial reasons why these two main industrial partners could not participate in the project. This caused a significant negative impact on implementation of project components 2 and 3, which are lagging behind. It was reported that Verenum Corporation was acquired by BASF and BASF is still operational in Kenya, dealing in biopesticides. Even DSMZ is also operational in Kenya working in partnership with UoN in the same discipline. It was reported that the remaining partners had no capacity to produce enzymes at the scale that RIVATEX and Dudutech wanted, since it was Verenum Corporation which had that capacity. Dudutech was deemed to lack the capacity to implement what Verenum was supposed to do, particularly the scientific and technology transfer aspects. It was reported that to date, there are not enough samples collected for commercialisation purposes, which is not likely to be accomplished even with the project extension due to limited capacity.
- DSMZ was not included in the MoA yet they were supposed to provide expertise in documentation and quality management information systems for the microbial culture, provide improved ex-situ preservation of the microbial culture collection and a repository for isolates, transfer technology (including equipment, knowhow and training) to local research institutions and protected area systems management; and collect 500 samples from the Soda lakes and isolate 20 pure strains with cellulase, and generate 5 isolates producing bioactive secondary metabolites. DSMZ and Verenum were supposed to provide a repository of duplicate samples in their culture collection centre as defined by the PIC and MTA, while the originals were to be kept at JKUAT. The MTR was informed that DSMZ did not commit funding to the project as was required by the Nagoya Protocol Implementation
- Fund (NPIF) GEF and therefore GEF advised that they should not be part of the project.
- Lack of a functional bio-reactor for the project to scale up production of enzymes was also pointed out by KIIs as a major hinderance for the project. According to project design, UoN was expected to be having enough bio-reactors and all other equipment. It was reported that the UoN bio-reactor broke down and is now undergoing repair.
- Additionally, pre-occupation of partner staff with core institutional assignments other than project activities led to limited prioritisation of project interventions.

- Late release of the second disbursement of funds from UNEP Division of Environmental Law and Conventions (DELIC) to KWS and later from KWS to partners. The first disbursement of funds was on 13<sup>th</sup> November 2014 while the second disbursement of funds was on 24<sup>th</sup> December 2015, partly due to UNEP's migration to a new financial system (Umoja). However, the MTR did not see this as a sound reason since KWS has only utilised 40% of the total funds received by 2017 and the fact that the MoA with partners was signed as late 2017.

14. *External factors that affected project included:*

- The COVID-19 lockdown limited travel for sample collection and led to closure of the laboratories and other institutions.
- Climatic conditions such as heavy rains resulted into floods around the rift valley lakes including L. Bogoria in October 2019 and May 2020 and cut off the lakes.
- The road infrastructure was motorable although negatively affected by heavy rains. The main roads were in good conditions, though feeder roads connecting to the L. Bogoria were difficult to navigate during the rainy seasons.
- Politically, the August and October 2017 post-election violence affected the project area making it temporality impossible to engage communities within Baringo County and further limited sample collection. The post-election violence was said to have delayed formation of government, which delayed approval of expenditures.

15. However, the MTR realised that these external factors were for a short period of time and should not have significantly affected implementation. In addition, by the time most external factors occurred, the project implementation should have achieved a lot.

16. *Impact:* Since only 11% of the outcomes had been fully achieved in 6 and a half years, the likelihood of impact was mainly in terms of anticipated results that are likely to accrue from long-term utilisation of the strengthened ABS legislation and incorporation of ABS into the national regulatory frameworks to continue guiding and regulate ABS. The developed L. Bogoria Management Plan, PIC, and MAT are likely to contribute to sustainable utilisation and management of resources as well as sharing accrued benefits contributing to improved livelihoods. The online permitting process will harmonise and regulate access to natural resources. The established national culture collection centre will continue serving as a repository centre. The ABS model is already informing many benefit sharing agreements in African region and beyond. A safer environment is also anticipated due to reduced use of chemicals in favour of bio-pesticides.

## **E. Financial Management**

17. *Source of Funding:* The total cost of the project is estimated to be USD 2,665,210 of which GEF contribution is USD 1,000,000 (913,265 as GEF project grant and 86,735 as UNEP agency fee), which was (38%) and total co-finance committed to the project is US 1,751,945, representing 62% of the total cost of the project.
18. *Rate of Spending:* The project spending was rated unsatisfactory. GEF funds expenditure at the time of the submitting the first draft of the MTR report, as uploaded in the financial management system (Umoja) was USD 117,431 which was representing only 12.9% of the GEF project cost. However, an additional USD 206,631 was subsequently uploaded in Umoja on 23<sup>rd</sup> July 2021, hence the total of USD 367,620 representing 40.2% of the GEF project grant (913,265), and 61% of received advance (USD 600,989). KWS submitted a request for no-cost extension from September 2020 to 30 September 2022 while UNEP Africa Office requested for up to December 2023. It is anticipated that the remaining 59.8% of GEF grant will be sufficient to run the project to the end but if it is already used, it should be urgently accounted for to enable the project request for more funds. The MTR was not able to report on the co-finance rate of spending because the co-finance reports submitted by KWS had not been approved by UNEP Africa Office and UNEP Ecosystems Division.
19. *KWS Agreement with partners:* KWS did not sign individual funding agreements with partners but rather signed a collective Memorandum of Agreement (MoA) for 5 years (15/6/2017 to (15/6/2022) that did not stipulate how much each partner would receive in total from KWS for implementation of project activities



and when the subsequent disbursement would be due. Consequently, KWS had disbursed one instalment to partners and most partners did not know whether to expect the next release of funds and when.

20. *Quality, Compliance and Consistency of Financial Reporting*: This sub-criterion was highly unsatisfactory. The approved budget, though in line with the UNEP template, aggregated by component hence was not broken by outcome and output, making it difficult to analyse expenditure at output level in comparison to the budget. KWS submitted a revised budget on 15<sup>th</sup> September 2020 to together with the request for a no-cost extension of the project to September 2022 but it had not yet been approved. At the time of submitting the first draft MTR report, the finance reports submitted by KWS, approved and uploaded in the UNEP financial management system amounted to USD 117,000 (12.9%) capturing expenditure of up to 31/12/2016. However, at the time of finalising the MTR report, more financial reports had been uploaded in the system (Q4 2019, Q1 2020, and Q3 2020), increasing the financial expenditure to 40.2% (USD 367,620) as of September 2020, hence the un-accounted for advance of USD 233,369 for the funds advanced in 2017. The reports for October 2020 to June 2021 were still missing due to expiry of the PCA, and request for no-cost extension by KWS was not yet approved. There were also no annual external audits conducted for the project as stipulated in the PCA. The audit report submitted was for the entire KWS that included all government funded programs for the period 2012-2015.
21. *Communication between Finance and Project Management Staff*: Communication rating was highly unsatisfactory. There was a communication gap between the UNEP Ecosystems Division, UNEP Africa Office and KWS with each of the parties feeling that they were not getting adequate information from the other. KWS finance team reported not receiving regular feedback on submitted reports as evidenced by the number of submitted reports that were not approved and KWS reported not being aware. Additionally, KWS reported having requested to meet the current Task Manager (TM) but were only introduced to her during July 2020 virtual Project Steering Committee (PSC) Meeting. Lack of proper handover system amidst staff changes at different arms of UNEP (UNEP Ecosystems Division, UNEP DELC, and UNEP Africa Office) Ecosystems Division affected the flow of information.
22. The UNEP Ecosystems Division has had several changes in TMs, Mohammed Sessay (2014 - 2015), Adamou Bouhari (January 2016 December 2016), Mohammed Sessay again (January 2017 - September 2017), and Jane Nimpamya (October 2017 to date). However, KWS and the partners reported to have known the current TM in July 2020 yet she took up the role in 2017, confirming poor communication between UNEP and project partners.
23. For execution within UNEP, the project was originally executed by UNEP DELC with Kambu as the Project Manager (PM) from January 2014 to December 2016 and Emmanuel Andonsou (January 2017 - July 2017). The project was then moved from UNEP DELC to UNEP Africa Office and the PM was Robert Wabunoha (July - October 2017) after which Levis Kavagi took over (October 2017 to date). Project partners reported not to have understood the roles of the different divisions within UNEP. UNEP is perceived as one implementing organisation.

## **F. Efficiency**

24. Efficiency was rated highly unsatisfactory. The project is behind schedule, the Internal Cooperation Agreement (ICA), with UNEP Ecosystems Division has had 2 'no-cost extensions', with the latest no-cost extension going up to June 2023. The PCA between KWS and UNEP has also had one no-cost extension to September 2020, which has since expired and the subsequent no-cost extension request to September 2022 was not fully effected. The MTR noted that the project was on schedule with regard to submission of timely financial reports until December 2016 when KWS would submit reports to DELC which in turn would submit them to UNEP Ecosystems Division. There has been poor reporting of financial and technical progress reports to UNEP Ecosystems Division since March 2017, yet KWS confirmed having submitted reports to UNEP Africa Office. The MTR was not able to obtain justification as to why the internal execution role of the project was transferred from UNEP DELC to UNEP Africa Office. It was further noted that the role to be performed by either UNEP DELC or UNEP Africa Office in the ICA, is the same role to be performed by KWS in the PCA. Likewise, the role of DELC or ROA in the PCA with KWS is the same as the role of Ecosystem division in the ICA.

25. The project has made good use of partnerships and leveraged on their expertise and resources to achieve project results. There were delays in dispatching funds to partner institutions due to different financial policies and procedures at partner institutions and due to the Government of Kenya halting procurement across all government entities. The delays in project implementation negatively affected work for industrial partners (RIVATEX and Dudutech) who said they could not start on most of their interventions due to inadequate samples to facilitate development of isolates and products for commercialisation. Both RIVATEX and Dudutech were waiting for the development of industrial enzymes and bio-pesticides such that they market them to the farmers. RIVATEX engages cotton out growers across the country and plans to promote the developed bio-pesticides to cotton farmers. The MTR was not able to establish how long the project will take to produce these bio-pesticides for these private enterprises to start on their work.

## **G. Monitoring and Reporting**

26. The project monitoring and evaluation (M&E) system was partly functional and hence rated unsatisfactory. The CEO ER includes a results framework with outcomes and respective indicators and targets. The MTR observed non-compliance to reporting timelines. By the time of submitting the 1<sup>st</sup> draft MTR report, only expenditure reports of up to December 2016 had been approved and uploaded in the system, but subsequently more expenditure reports of 2019 and 2020 were uploaded in the system on 23<sup>rd</sup> July 2021. By the time of submitting the 1<sup>st</sup> draft MTR report, no inventory reports had been approved and uploaded in the reporting system. However, by the time of submitting the final report, inventory reports worth \$68,496.47 had been approved and uploaded in the system on 28<sup>th</sup> October 2021, and these were reports from MoI, KWS and JKUAT. Additionally, annual co-finance reports were not yet approved while no project audit report had been submitted by KWS. Furthermore, technical progress reports from UNEP Africa Office were missing although there were technical progress reports from KWS.
27. The PSC had ToRs in place and was scheduled to meet at least annually as per CEO ER and the PSC meeting of 2015 had agreed to be meeting bi-annually, yet the PSC had only met 3 times in 6 and a half years by MTR time, which indicated inadequate project monitoring oversight. All the PSC minutes were not signed, hence not confirmed official documents. KWS reported that budgeted funds allocated to M&E were inadequate and therefore KWS had submitted a revised budget with USD 15,000 allocated to M&E, which was yet to be approved at the time of the MTR.

## **H. Sustainability**

28. The rating for sustainability was satisfactory. The project utilised existing national and county structures which will continue providing services. The capacity of county governments, partner institutions and local communities were strengthened. The ABS related legal framework ensures continuity of interventions and ABS benefits to communities. However, local communities reported minimal engagement which was mainly during initial project stages and was perceived by local communities as passive engagement, probably due to the long-time taken without regular communication to communities, since the MTR learnt that communities were engaged in project inception meetings, PSC meetings as well as in developing PIC and L. Bogoria Management Plan. The project had no comprehensive standalone exit/sustainability strategy, the exit interventions were said to be imbedded in the National Bio-prospecting strategy and some exit interventions were in built in respective partner institutions' systems.

## **G. Country Ownership and Driven-ness**

29. There was evidence of country ownership, for instance, the national Government of Kenya spearheaded legislative and policy reviews to mainstream ABS in institutional policies and frameworks and organised the 10-year anniversary for Nagoya Protocol global celebrations. The Ministry of Tourism chairs the PSC. The Ministry of Agriculture mainstreamed ABS into the agriculture sector strategic plan while Ministry of Culture is promoting community platforms for sharing benefits from associated genetic resources. Sector agencies such as KWS, KIRDI and National Commission for Science, Technology and Innovation (NACOSTI) and institutional partners such as JKUAT, Moi University and UoN took a leadership role through provision of in-kind and cash co-financing contributions such as office space, salaries, stationery, utilities, communication and travel expenses. Baringo County contributed KES 1,500,000 towards the development of the L. Bogoria Management Plan.

## **Conclusions**

30. The overall rating of the project was unsatisfactory. The project has not yet achieved most of the outputs and outcomes with only 6 out of 23 (26.1%) outputs and 1 out of 9 outcomes (11.1%) fully achieved, in a period of 6 and a half years, yet the project was supposed to be implemented in 4 years. This indicates a high likelihood of not achieving most outputs even after the anticipated project extension. The technical capacities of partners seem to be adequate to deliver the project results, but they are being slowed down by a number of internal and external factors. The main factor affecting delivery of results was very low project activity implementation rate causing poor financial absorption rate (40.2%) in 6.5 years. Other factors included poor adherence to contractual obligations such as timely reporting, poor accountability, poor project monitoring, poor supervision and huge communication gaps.
31. The MTR noted that internal factors significantly affected smooth and timely implementation of the project such as the non-participation of the main industrial partners, BSMZ and Verenum Corporation which had significant negative impact on the implementation of components 2 and 3, that are lagging behind. To a limited extent, external factors also contributed to the slow implementation rate such as delayed second disbursement of funds from UNEP due to system change, floods, insecurity, COVID-19, although these were for a limited timeframe and could not have been responsible for the project extending to 6.5 years and beyond. Whereas reporting was done well under UNEP DELC, the reporting inefficiencies were noted after the project management was transferred to UNEP Africa Office. This necessitates reviewing the role of UNEP Africa Office in the project management structure to establish the value addition of that extra layer, otherwise, KWS should directly work with the UNEP Ecosystems Division. Project implementation is within budget, although delayed project completion and limited adherence to timelines make the project inefficient. The project interventions are likely to be sustainable, since the project utilised existing government institutions and agencies including universities and regulatory authorities that will continue providing services. The project strengthened ABS capacity for county governments, partner institutions and local communities. The reviewed and strengthened ABS related legal framework will ensure continuity of interventions and ABS benefits to communities. These include the Wildlife Management Act 2013, Environmental Management and Coordination Act (EMCA) 2015, County ABS laws and Bicultural Protocols for the Endorois community.

### 32. Summary of Evaluation Ratings

Below is the summary rating of the project per criteria

Criterion	Rating
A. Strategic Relevance	Satisfactory
B. Quality of Project Design	Satisfactory
C. Nature of External Context	Moderately Favourable
D. Effectiveness	Unsatisfactory
E. Financial Management	
E1. Rate of spending	Unsatisfactory
E2. Quality and consistency of financial reporting	Highly Unsatisfactory
E3. Communication between Finance and Project Management Staff	Highly Unsatisfactory
F. Efficiency	Highly Unsatisfactory
G. Monitoring and reporting	Unsatisfactory
H. Sustainability	Satisfactory
I. Factors Affecting Performance	Moderately Satisfactory
<b>Overall project rating</b>	<b>Unsatisfactory</b>

### Lessons Learned

33. ABS results do not happen as quickly as with other projects so it may not fit into a short-term period. This partly explains why the Endorois community said they had not yet realised the benefit sharing from use of genetic resources for research and development. Not all project partners require the same boarding time since interventions of some partners, such as industrial partners were dependant on other partners' accomplishment of their work. The lengthy chain for the flow of funds (UNEP Ecosystems Division – UNEP Africa Office – KWS – Partners), if not reviewed to ascertain the value addition of each layer may limit efficiency. Having multiple institutions governed by different policies leads to bureaucracies and slows down processes. A project may be implemented within budget, but not efficient when implemented way beyond its planned schedule. Political will at national, county government and institutional levels fosters sustainability through resource allocation and integration of ABS interventions into work-plans. Absence of specific project staff for the project details implementation since the staff are pre-occupied with core institutional assignments,

taking project work as secondary particularly for partners that did not recruit dedicated project staff. When implementing explorative projects, there are many unknown parameters such as the required technology and timeframe. Having different partners responsible for specific components of the project with no regular meetings to bring together partners and discuss progress creates a tendency to work in silos, hence hindering quick progress. Much as the executing agency was awarded the contract, it should not be assumed that they fully understand specific donor requirements hence requiring close support supervision. The context within which these lessons were learnt and where they can be applied is presented in Table 9.

### 34. Recommendations

No.	Finding/Challenge	Recommendations
<b>Project design</b>		
i.	The CEO ER did not include the theory of change and there is no project document hence no activities in the design document. The project indicators were not SMART, most of them were stated as results and had no measurable and quantifiable targets. Outputs were stated as activities, while indicators and targets were stated as results. Some outputs do not link directly to the outcomes and some targets do not necessarily match outcomes. The results framework did not include gender-tracking indicators and lacked an elaborate monitoring plan.	Review and finalise the theory of change reconstructed by the Consultant. Revise and refine the project results framework to reflect appropriate output statements, gender-responsive and SMART indicators, and targets. Develop a comprehensive costed M&E plan and conduct regular tracking of project progress. <b>Responsibility:</b> KWS, UNEP and partners <b>Timeline:</b> December 2021
ii.	Lack of a standalone and comprehensive project exit strategy.	Develop a comprehensive project exit strategy. <b>Responsibility:</b> KWS, UNEP and partners <b>Timeline:</b> December 2021
iii.	Limited deliberate efforts to integrate and address gender and human rights issues during the project design and implementation.	Develop a gender and human rights mainstreaming strategy for the project to strengthen gender and human rights issues integration into the project. <b>Responsibility:</b> KWS, UNEP and partners <b>Timeline:</b> March 2022
<b>Project results</b>		
iv.	Limited achievement of project targets with only 6 out of 23 (26%) outputs and 1 out of outcomes (11%) fully achieved. This indicates a high likelihood of not achieving most targets even after the no-cost extension.	KWS should develop an action plan to fast-track implementation of interventions and strengthen regular tracking of implementation. Institute quarterly progress review meetings for partners and UNEP.  UNEP Ecosystems Division and UNEP Africa Office should strengthen project management and support supervision to ensure adherence to contractual obligations and reporting timelines.  UNEP Ecosystems Division and UNEP Africa Office should fast-track approval of the no-cost extension for KWS to facilitate completion of pending activities. <b>Timeline:</b> 31 <sup>st</sup> October 2021
v.	The assigned project staff for partner organisations were pre-occupied with core institutional assignments, taking project work as secondary and not dedicating as much time as required. This is because they were not fulltime staff and hence focused where they are appraised and expected to be on fulltime basis.	For faster implementation, there is need for partners to recruit project staff to specifically work on project activities.  <b>Responsibility:</b> Partners <b>Timeline:</b> 31 <sup>st</sup> October 2021
vi.	Silo mentality whereby some institutions often worked independently, yet it is a collaborative project. Joint report reviews and review meetings were ad hoc, rather than planned and regular.	Conduct quarterly joint partner review meetings with all partners in which partners present their technical and financial progress reports, discuss challenges and agree on strategies to overcome them.



	<p>KWS should institute a collaborative transparency and information sharing mechanism and amongst all partners.</p> <p><b>Responsibility:</b> UNEP, KWS, partners and relevant sectors <b>Timeline:</b> Immediate</p>
<b>Compliance and reporting</b>	
<p>vii. Lack of timely training on reporting formats. Incomplete and improperly compiled technical and financial reports with most of them not yet approved.</p> <p>Some project partners did not understand how the co-finance works and how to produce related reports.</p>	<p>UNEP Ecosystems Division (TM and finance team) should continuously conduct training for KWS and partners' staff on reporting.</p> <p>UNEP Ecosystems Division and UNEP Africa Office to provide regular support supervision and feedback on submitted reports by KWS.</p> <p><b>Timeline:</b> Immediate</p>
<p>viii. Lack of adherence to project reporting and implementation timelines. KWS reported having submitted reports to UNEP Africa Office, but UNEP Africa Office did not review and upload them in the reporting system on time.</p> <p>In addition, UNEP Africa Office did not regularly provide feedback to KWS on submitted reports, as evidenced by KWS not aware that most reports were not approved. On the other hand, UNEP Ecosystems Division wanted to provide feedback directly to KWS but was hindered by the ICA legal barrier that prohibits its direct contact with KWS.</p>	<p>KWS should submit reports to UNEP Africa Office timely and UNEP Africa Office should in turn submit timely reports to UNEP Ecosystems Division for review and approval, as per all legal instruments.</p> <p>There should be a review on the role of UNEP Africa Office in the project management chain to establish value addition of that layer and its contribution to delayed reporting to UNEP Ecosystems Division. If no value addition is determined, 3 options are recommended: i) Re-allocate the responsibility of project management to another person in UNEP Africa Office. ii) Terminate the current ICA between UNEP Ecosystems Division and UNEP Africa Office. iii) Sign a new PCA between UNEP Ecosystems Division and KWS.</p> <p><b>Responsibility:</b> UNEP Ecosystems Division and UNEP Africa Office <b>Timeline:</b> Immediate</p>
<p>ix. Limited functionality of the PSC, as evidenced by irregular PSC meetings (3 meetings in 6.5 years instead of at least one per year, and agreed twice a year as per 2015 PSC meeting), and all PSC minutes were not signed.</p>	<p>KWS to finalise and obtain signatures for minutes of PSC meetings and share them with all members.</p> <p>The PSC Chair to institute quarterly PSC meetings since the project is way behind schedule in implementation, instead of meeting at least once a year as per CEO ER.</p> <p>KWS should revise the budget and to cater for more PSC meetings accordingly.</p> <p><b>Timeline:</b> Immediate and continuous</p>
<b>Financial management</b>	
<p>x. Very low financial absorption rate and reporting with only 40% of the disbursed GEF funds utilised and fully accounted for, to date.</p>	<p>The finance team at Africa Office should follow up with KWS to submit reports of the remaining receivables, review them and upload them in the financial management system.</p> <p><b>Timeline:</b> Immediate</p>
<p>xi. Untimely and incomplete financial reporting. At the time of MTR data collection (May-June 2021), financial reporting amounted to 12.9% (USD 117,000), due to incomplete submission of financial reports. However, at the time of finalising the MTR report more financial reports had been uploaded in the system (Q4 2019, Q1 2020, Q3 2020), increasing the financial expenditure to 40% (USD 367,620) as of September 2020. However, the reports for October 2020 to June 2021 were still missing, hence the un-accounted for advance of USD 233,369. This was money advanced in 2017. Other financial reports like co-financing and equipment inventories were also missing.</p>	<p>KWS should submit the remaining quarterly finance reports to UNEP Africa Office.</p> <p>UNEP Africa Office to always review the reports submitted by KWS and ensure they are uploaded into the reporting system (UMOJA) on time to comply with reporting requirements.</p> <p>The UNEP Africa office to submit their co-finance reports to UNEP Ecosystems Division.</p> <p><b>Responsibility:</b> UNEP Africa Office and KWS <b>Timeline:</b> By 30<sup>th</sup> October 2021</p>

xii. Only 3 partners (JKUAT, Moi University and KWS) submitted inventory reports worth USD 68,496 by MTR.	<p>UNEP and KWS to find out if other partners that received funding procured equipment and if they did, remind them to submit inventory reports.</p> <p><b>Timeline: By 30 September 2021</b></p>
xiii. Most of the co-finance reports were not properly compiled hence not approved by Ecosystems Division by the time of MTR data collection and draft report compilation (May-June 2021). Ecosystems Division pointed out that the submitted reports indicate expenditures of previous years, which must also be submitted, in order for them to effectively review the reports.	<p>KWS should follow up on all the required co-finance reports from the partners and submit them to UNEP Africa Office.</p> <p>UNEP Africa Office should review all co-finance reports from KWS and submit them to Ecosystem Division.</p> <p><b>Timeline: By 30 September 2021</b></p>
xiv. KWS has had 3 transfers of funds from UNEP amounting to USD 600,989 (USD 160,989 from UNEP DELC and USD 440,000 from UNEP Africa Office), however, funds transfer forms from DELC were not provided, although the funds transfer forms from UNEP Africa Office to KWS were provided to ascertain the transaction.	<p>All cash transfers from UNEP to KWS should be supported by approved cash request and transfer forms.</p> <p>UNEP Ecosystem Division should obtain all funds transfer forms to KWS for record purposes.</p> <p><b>Timeline: Immediate</b></p>
xv. KWS did not sign individual funding agreements with partners but rather signed a collective Memorandum of Agreement (MoA) for 5 years (from 15/6/2017 to 15/6/2022) that did not stipulate how much each partner would receive from KWS for implementation of project activities and when the subsequent disbursement would be due.	<p>KWS should sign distinct funding agreements with partners showing clear deliverables and funding amounts, including the amounts already received, and schedule for follow on disbursement and reporting requirements.</p> <p>The PSC should review the current collaborative agreement between KWS and partners and provide recommendations on how various partners should be managed under this project.</p> <p><b>Responsibility:</b> KWS, UNEP Africa Office and UNEP Ecosystems Division</p> <p><b>Timeline: Immediate</b></p>
xvi. Bureaucracies in release of funds particularly among universities, with several signatures required before release of funds and co-mingling of funds project funds with institutional funds	<p>UNEP should make a strong follow-up to trace how this co-mingled money could be properly accounted for.</p> <p>Participating institutions should open separate project accounts to avoid co-mingling of funds and quicken the funds approval processes.</p> <p>Different participating institutions with varied finance policies delayed release of funds.</p> <p>Speed up the flow of funds between UNEP, KWS and partners.</p> <p><b>Responsibility:</b> UNEP Ecosystems Division and UNEP Africa Office</p> <p><b>Timeline:</b> December 2021 and future projects</p>
xvii. Overall, KWS has accounted for 61% (USD 367,620) of received advance (USD 600,989). Some partners that had accounted for the funds received from KWS have not yet received the next cash advance since some partners had not yet accounted for their allocated funds.	<p>KWS should develop protocols guiding how to receive financial reports from partners.</p> <p>KWS should collect technical progress reports from partners and submit them to UNEP as annexes to KWS reports.</p> <p>KWS should account for the remaining advance of USD 233,369 in order to request for more funds.</p> <p><b>Timeline: Immediate</b></p>
<b>Management and communication</b>	
xviii. The agreement between KWS and UNEP has expired.	<p>UNEP should sign a new agreement with KWS.</p> <p><b>Timeline:</b> September 2021</p>
xix. At UNEP Ecosystems Division, the project has had 4 changes of TMs, yet 3 of those TMs are still UNEP staff, which brought about lack of continuity in terms of support to KWS and partners.	<p>For future projects, UNEP should minimise changing TMs as much as possible.</p> <p><b>Responsibility:</b> UNEP Ecosystems Division</p> <p><b>Timeline:</b> Future projects</p>
xx. The role to be performed by Africa Office in the ICA, is the same role to be performed by KWS in the PCA, making the ICA	<p>UNEP should assign the execution role to KWS directly.</p>

<p>redundant. Instead, the project execution role is being performed by KWS. KWS is also not aware of the difference within UNEP divisions; they see UNEP as one organisation representing the implementing agency.</p>	<p>UNEP should review the value addition of having Africa Office in the project implementation chain and terminate the ICA if there is not much value addition. <b>Timelines:</b> By December 2021</p>
<p>xxi. Lack of proper handover system amidst staff changes at different arms of UNEP.</p>	<p>Institute a mechanism for systematic orientation of new staff and structured handover to facilitate smooth transition of staff. The Human Resource departments for various institutions should provide oversight for handover processes. <b>Responsibility:</b> UNEP <b>Timeline:</b> Ongoing</p>
<p>xxii. Lack of regular communication and information exchange between UNEP Ecosystems Division, UNEP Africa Office and KWS.</p>	<p>For the first six months, institute monthly open communication and feedback meetings for UNEP Ecosystems Division, UNEP Africa Office and KWS to assess the status of the project implementation. Thereafter, the meetings can be made quarterly. <b>Responsibility:</b> KWS, UNEP Africa Office, UNEP Ecosystems Division <b>Timeline:</b> Monthly for the first six months, then quarterly throughout the remaining project lifetime.</p>
<p><b>Sustainability</b></p>	
<p>xxiii. Inadequate and non-regular engagement of local communities is likely to negatively affect sustainability.</p>	<p>Institute regular review and feedback meetings with Endorois community representatives and involve them in project monitoring activities to keep them informed on progress and document these meetings for evidence. Establish a community level project management structure and evidence it with documentation within the next 6 months. <b>Responsibility:</b> KWS and Partners <b>Timeline:</b> Immediate and continuous</p>
<p>xxiv. Some project aspects require financial support for sustainability such as development of microbial candidates; maintenance of the culture collection centres; collecting samples, commercialising products and ABS capacity development at national and county levels.</p>	<p>Leverage funding from bilateral partners and existing government structures to scale up sustainability of interventions. Commercialise to contribute to some of the critical interventions. <b>Responsibility:</b> KWS, partners and relevant sectors <b>Timeline:</b> Immediate and Continuous</p>
<p><b>Crosscutting issues</b></p>	
<p>xxv. Lack of a gender mainstreaming strategy.</p>	<p>Develop a comprehensive gender mainstreaming strategy in line with ABS, to ensure equity participation and sharing of ABS benefits for both women and men. <b>Responsibility:</b> UNEP, KWS, partners and relevant sectors <b>Timeline:</b> Immediate</p>

## 1.0 Project Overview

35. This report presents findings from the Mid-Term Review (MTR) of the UNEP/GEF Project titled “Developing the Microbial Biotechnology Industry from Kenya’s Soda Lakes in line with the Nagoya Protocol” “GEF ID Number 5626”. The MTR was conducted between May and June 2021 as per terms of reference (ToR) attached in Annex 5. This project was funded by the Global Environment Facility (GEF), under the trust fund Nagoya Protocol Implementation Fund (NPIF).

### Institutional Context within UN Environment

36. The UNEP Ecosystems Division, formally called Division of Environmental Policy Implementation (UNEP DEPI) is the Implementing Agency (IA) for this project. As such, UNEP Ecosystems Division is responsible for coordinating activities, monitoring the implementation of UNEP’s standard Monitoring and Evaluation (M&E) procedures, and transmitting financial and progress reports to the GEF. The project is internally executed within UNEP. It was first executed by the Division of Environmental Laws and Conventions (DELIC), now Law Division, as the Executing Agency and was later transferred to the UNEP Regional Office for Africa (ROA), now Africa Office. It is therefore bound by the guidelines for internally executed projects within UNEP. While the UNEP Ecosystems Division maintains its role as an IA with oversight functions, the UNEP Africa Office assumes the overall executing functions in the project. As executing agency, the Africa Office works with KWS, the lead partner in this project that is responsible for managing project implementation on a day-to-day basis. The execution arrangements for management of this project on the ground was first detailed out in a contract between UNEP and KWS at start of project implementation in form of Project Cooperation Agreement (PCA) that was signed on 14/08/2014 to run up to 31/08/2019 but was extended once to 30/09/2020 and has since expired.

37. UNEP Ecosystems Division is responsible for project implementation and monitoring the project in accordance with the agreed budget and outputs and disburse funds to project partners through Africa Office to facilitate implementation. UNEP Ecosystems Division communicates to Africa Office the GEF requirements for project reports and evaluations. As the executing agencies, UNEP Africa Office and KWS are responsible for providing sufficient staff resources to perform administrative and programmatic duties, mobilize co-financing, and oversee project M&E.

38. Project key partners included resource providers and users. These include KWS, county government, local communities, University of Nairobi (UoN), Jomo Kenyatta University of Agriculture and Technology, Moi University, Kenya Industrial Research and Development Institute, University of Nairobi Science and Technology Park, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya Industrial Research and Development Institute (KIRDI), Rift Valley Textiles (RIVATEX) and Dudutech. The roles and responsibilities of stakeholders are presented in Table 1.

Table 1: Roles and Responsibilities of Key Partners

No.	Key Partners	Roles and Responsibilities
1.	UNEP Ecosystems Division	Assumes the overall GEF Agency Implementing functions Responsible for overall project oversight, monitoring the implementation of UNEP/GEF’s standard M&E procedures, and transmitting financial and progress reports to the GEF Secretariat (GEFSEC). Ensure that GEF policies and criteria are adhered to. Perform liaison between UNEP and GEF secretariat. Undertake MTR or request the Evaluation Office to undertake an independent MTR. Ensure the Evaluation Office to undertake an independent terminal evaluation. Rate on annual basis progress towards meeting project objectives, implementation progress, risk and quality of M&E and report to GEF secretariat through the Project Implementation Review (PIR) Report.

No.	Key Partners	Roles and Responsibilities
		Verify that communication prepared by the division complies to GEF guidelines. (Source: ICA, clause 10)
2.	UNEP Africa Office	<p><i>The Role of UNEP Africa Office in the ICA</i>  Take responsibility for execution of the project.  Deliver outcomes and demonstrate best efforts towards achieving outcomes.  Notify Ecosystems Division in writing if there is need for modification to the agreed implementation plan or budget.  Make available to the project the cash and in-kind financing.  Address and rectify issues raised by Ecosystems Division with respect to project execution in a timely manner.  Report to the Ecosystems Division.  Follow UNEP procedures governing publications of documents, documents and information.  Support the project MTR and evaluation and develop a management response.  Corporate with the project terminal evaluation and provide all requested information.  Comply with administrative and financial procedures  (Source: ICA, clause 11)</p> <p><i>The role of UNEP ROA in the PCA</i>  With regard to project implementation, UN Environment shall:  Provide, in its role as GEF Implementing Agency, project oversight to ensure that GEF policies and criteria are adhered to and that the project meets its objectives and achieves expected outcomes in an efficient and effective manner.  Have a representative on the project steering committee;  Perform the liaison function with the GEF Secretariat on the project;  Inform the GEF Secretariat whenever there is a potentially substantive co-financing change (i.e., one affecting the project objectives, the underlying concept, scale, scope, strategic priority, conformity with GEF criteria, likelihood of project success, or outcome of the project);  e) Rate, on an annual basis, progress in meeting project objectives, project implementation progress, risk, and quality of project monitoring and evaluation, and report to the GEF Secretariat through the Project implementation Review (PIR) report;  Review and clear manuscripts prepared by the Executing Agency before publication, and review and agree any publishing contracts;  Undertake a mid-term review or request the Evaluation Office (EO) of UN Environment to perform an independent mid-term evaluation  Ensure that EO arranges for an independent terminal evaluation and submits its report to the GEF Evaluation Office;  As deemed appropriate, facilitate access to information, advisory services, technical and professional support available to UN ENVIRONMENT and will assist the Executing Agency to access the advisory services of other United Nations Organizations, whenever necessary.  (Source: PCA)</p>
3.	Kenya Wildlife Services (KWS)	<p><i>The role of KWS in the ICA</i>  KWS as the lead partner in this project is responsible for managing project implementation on a day-to-day basis.  Ensure that personnel perform project related functions.  Undertake individually or collectively with other partners project research and other activities specified in the CEOER. (Source: PCA and CEOER Request)</p> <p><i>The role of KWS the PCA/Terms and obligations</i>  Undertake individually or collectively with other partners or third parties of the project research and other activities specified in the project document  Refrain from any conduct that would adversely reflect on the UN and shall not engage in any activity incompatible with the aims and objectives of UN or the mandate of UNEP.  Before disclosing confidential information, each party will obtain express written consent of the other party.  Inform UNEP in writing whenever there is a potentially substantive co-financing change.</p>



No.	Key Partners	Roles and Responsibilities
		Notify UNEP in writing about any expected variations on the project budget on an annual basis.
4.	County Government	To ensure equitable sharing of benefit resulting from utilization of genetic resources. County governments were part of the National Bioprospecting Steering Committee, soda lakes platform and implementation of joint management plans as well as part of project monitoring). The MTR established that the County Government was not part of the ABS MoA with KWS and yet it is a key stakeholder in this process according to the project design ( <i>Source: CEOER, p.23-24.</i> )
5.	National Commission of Science, Technology and Innovation (NACOSTI)	Responsible for the ABS regulatory framework review, supporting various students in undertaking microbial research in the soda lakes through various grants as well as putting in place policies on establishment of designated depositories. Support the establishment of JKUAT Institute of Biotechnology Research (IBR) microbial culture centre that act as a local depository and advising national and county government on matters of science, technology and innovation of social, economic growth and development. Promotion and coordination of activities of key actors and stakeholders in science, technology and innovation to foster prosperity and improve quality of life of citizens. Advocacy on new emerging technologies for informed choices and decision making e.g., through dialogue and info sharing, Science Fora, with academia, industry, NGOs, CSOs, ministries, departments and agencies (MDAs) and experience sharing ( <i>Source: CEOER</i> ). The MTR could not establish why NACOSTI was not part of the ABS MoA with KWS and yet according to the CEOER, it had an important role to play in the project as per the above-mentioned roles.
6.	University of Nairobi (UoN)	The role of UoN was to screen and optimize talented candidate microbes and products through offering expertise equipment and facilities for enzyme production, purification and downstream processing. Training of students. ( <i>Source: CEOER and MoA</i> )
7.	The University of Nairobi Science and Technology Park Ltd	To undertake incubation, process development and commercialization of research from the university scientists. ( <i>Source: CEOER and MoA</i> )
8.	Jomo Kenyatta University of Agriculture and Technology (JKUAT)	<u><i>Roles as stated in the MOA</i></u> To develop micro-organisms for bio pesticides to control crop pests; undertake R&D activities and train students on utilization of soda lakes microbial biological resources in relation to the project; fulfil the Nagoya requirements of provider/user partnership on utilization of the country's biological resources and develop and upscale technologies for the bio pesticide industry from soda lakes microbial biological resources, progenies and products.  <u><i>Roles as stated in the CEOER</i></u> Undertake R&D activities and train students on utilization of soda lakes microbial biological resources in relation to the project. Part of the industrial partner in the soda lakes project to fulfil Nagoya requirements of provider/user partnership on utilization of the country's biological resources; To be the repository for the soda lakes microbial biological resources; Develop best code of practice on access and transfer of biological resource collections in line with the principles of PIC, MAT, MTA and ITA in compliance with domestic legislations and MEAs where Kenya is party to; Provide a record of status of microbial biological resources and progenies within the culture collection to the provider; Develop and upscale technologies for the biopesticide industry from soda lakes microbial biological resources, progenies and products; Undertake commercialization, in concert with the other partners, of developed products and processes; Share out benefits derived from utilisation of soda lakes microbial resources based on commercialised technologies and processes as per Nagoya Protocol. ( <i>Source: CEOER and MoA</i> )
9.	JKUAT Enterprise Ltd	Same as for JKUAT above as per MoA, which depicts potential duplication on roles and redundancy of one institution.

No.	Key Partners	Roles and Responsibilities
10.	Moi University, Kenya	<p>To be an industrial partner and Intellectual Property partner working with RIVATEX, a company that is wholly owned by Moi University.</p> <p>Undertake R&amp;D activities and train students on utilization of soda lakes microbial resources in relation to the project Part of the industrial partner in the soda lakes project to fulfil Nagoya requirements of provider/user partnership on utilization of the country's biological resources.</p> <p>Uptake the developed technologies for use in textile processes, as the local industrial partner in the project.</p> <p>Develop protocols for new products and processes on textile materials.</p> <p>Engender large scale application of developed products and processes on textile materials.</p> <p>Undertake commercialization, in concert with the other partners, of developed products and processes.</p> <p>Share out benefits derived from utilization of the soda lakes.</p> <p><i>(Source: CEO ER and MoA)</i></p>
11.	RIVATEX	<p>The industrial partner whose main role was to conduct a needs assessment of bio products for industrial application.</p> <p>Development of usage protocols for bio-products.</p> <p>Packaging, branding and selling of developed industrial products and promoting industrial uptake of bio products for textile processing. <i>(Source: CEO ER and MoA)</i></p>
12.	Kenya Industrial Research and Development Institute (KIRDI)	<p>Undertake R&amp;D activities and train students on utilization of soda lakes microbial resources in relation to the project.</p> <p>Key industrial partner for uptake of R&amp;D technologies and processes to industrial level and appropriate technology transfer.</p> <p>Conduct pilot upscaling and validation of developed technologies from the project partners.</p> <p>Identify potential industries for uptake of developed technologies within and outside Kenya;</p> <p>Together with relevant institutions such as Kenya Bureau of Standards (KEBS), KIPi and KEPHIS, brand Kenya's soda lakes microbial biological resources at market place.</p> <p>To undertake commercialization, in concert with the other partners, of developed products and processes.</p> <p>To share out benefits derived from utilization of the soda lakes microbial resources based on commercialized technologies and processes as per the Nagoya Protocol.</p> <p><i>(Source: CEO ER and MoA)</i></p>
13.	Dudutech IPM Limited	<p>Be the industrial partner in the soda lakes project, responsible for developing technologies on bio-pesticides products and marketing in collaboration with the local partners to fulfil the Nagoya requirements of provider or user partnership on utilization of the country's biological resources.</p> <p>Undertake R&amp;D activities and train students in utilization of Soda Lakes micro-bio resources in relation to the project.</p> <p>To uptake the developed technologies for use of bio-pesticides for agricultural production processes as the local industrial partner in the project.</p> <p>To develop protocols for new products and processes on Soda Lakes derived bio-pesticides.</p> <p>To engender large scale application of developed products and processes on bio-pesticides.</p> <p>To undertake commercialization in consultation with the other partners of developed products and processes.</p> <p>To share out benefits derived from utilization of the Soda Lakes micro-bio resources based on commercialized technologies and processes as per the Nagoya protocol.</p> <p><i>(Source: General provision 1.3 of the subsidiary agreement No. 1/Soda lakes Project MoA/KWS/2019)</i></p>
14.	Local communities	<p>The communities are encouraged to form an association (Kenyan soda lakes communities association), as a legal entity to enter into partnership under this MoA.</p> <p>The local communities, with the partners will establish bio-cultural protocols for the utilization of the soda lakes biological resources as per the Kenyan laws.</p> <p>The communities will put in systems to deter wildlife poaching which includes bio-</p>

No.	Key Partners	Roles and Responsibilities
		<p>piracy among others.</p> <p>Together with partners, the local communities will develop guidelines for PIC, MAT, and MTA to promote Research and Development within the Soda lakes areas.</p> <p>The Soda Lakes communities will develop benefit sharing guidelines on how to manage benefits accruing from the utilization of the soda-lakes biological resources in accordance with the laws of Kenya.</p> <p>Whenever the Soda Lake communities will be 'Sample area of origin' they will jointly grant PIC with KWS on utilization of both the Biological and non-biological resources from the Soda Lakes.</p> <p>(Source: CEO ER and MoA)</p>
15.	Verenium (BSAF)	<p><i>Although Verenium (BSAF) did not participate in project implementation, these were their roles at the project design:</i></p> <p>Build capacity of wildlife management in sampling, storage of Soda lakes microbial resources for monitoring purposes,</p> <p>Together with local research institution and companies undertake research and develop products from microbial genetic resources from soda lakes and share out benefits as per the agreed agreement by all stakeholders.</p> <p>Contribute to the projects sustainability in resource mobilization and building capacities of local institutions towards microbial enzyme development and optimization through technology transfer.</p> <p>(Source: CEO ER)</p> <p>The MTR could not establish substantial reasons why Verenium (BSAF) did not participate in the project and yet it was a key statement. It was mentioned that it was acquired by BASF but did not get justifiable reasons why BASF was not brought on board.</p>
16.	BSMZ	<p><i>Although BSMZ did not participate in project implementation, these were their roles at the project design:</i></p> <p>Provide expertise in documentation and quality management information systems for the microbial culture which is a crucial role in this project.</p> <p>Provide improved ex-situ preservation of the microbial culture collection. Utilization of collected soda lakes microorganisms under this project will be guided the signed agreement (MAT) between partners, the PIC and MTA.</p> <p>Technology transferred (including equipment, knowhow and training) to local research institutions and protected area systems management.</p> <p>Collect and isolate 500.</p> <p>Collect 500 samples collected at different seasons from the Soda lakes and 20 pure strains isolated with cellulase, protease and Phytase activities for agro-processing starch and fuel, textile, food and beverage and protein hydrolysis and deposited in culture collection centres at JKUAT, DSMZ and Verenium Corporation.</p> <p>At least 5 isolates producing bioactive secondary metabolites as biopesticides for seed and seedling treatment characterized and deposited in the culture collection centers in JKUAT and DSMZ.</p> <p>(Source: CEO ER)</p>

### 1.1 Project Rationale

39. The UNEP is implementing a GEF project titled "Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol" executed by the UNEP Africa Office and KWS. The project is consistent with the eligibility criteria and priorities of the fund as it aimed at supporting the government of Kenya to implement a national Access and Benefit Sharing (ABS) project to promote access and utilization of the country's genetic resources as per Nagoya Protocol and technology transfer on Mutually Agreed Terms (MAT) and Prior Informed Consent (PIC) between providers and users. In addition, the project envisaged facilitating private sector engagement and related initiatives targeting investments in the conservation, sustainable use of genetic resources in situ and community livelihood support. Lessons from this project will be used to update ABS laws and regulations and to improve the capacities of Kenyans in undertaking ABS-based projects between providers and users in line with Nagoya Protocol.



40. The problem which the project aimed at solving was that previous access to genetic resources from Kenyan Soda Lakes has not resulted into intellectual property protection and commercialization for the benefit of the country. This was because bioprospecting had not been carried out based on the ABS arrangements between the providers of resources and users as envisioned in Conservation of Biological Diversity (CBD) and Nagoya Protocol. This was due to inadequate consultations and participation of relevant stakeholders for example local communities and county governments, bio piracy, lack of capacity in local institutions to sustainably exploit genetic resources. There were inadequate policy and legislative instruments laying down the partnerships which define ABS. Currently, there are several organisms collected and stored in ex-situ germplasm outside the country without proper documentation. These ex-situ germplasms are acting as bioprospecting platform for industrial enzymes, agrochemicals and drug discovery without a clear link to the provider and the user as defined by the Nagoya Protocol. The Nagoya Protocol requires that access to both genetic resources and associated knowledge should be through instruments of PIC, MAT and Material Transfer Agreement (MTA) which clearly define chain of custody and benefit sharing arrangements. These instruments have been lacking in previous bioprospecting activities within the Soda lakes. As a result, the benefits of bioprospecting are not realised by Kenya, both in terms of business; financial income; training and employment. These have limited the country's ability to invest in Intellectual Property (IP) infrastructure and realising its vision 2030 objective on industrialization on knowledge-based economy.

### Project Parameters

41. The project was approved by GEF on 15<sup>th</sup> April 2014 and started on 17<sup>th</sup> November 2014. The intended completion date was 31<sup>st</sup> August 2019. The total project cost is USD 2,665,210, of which GEF contribution is USD 1,000,000 (913,265 as GEF project grant and 86,735 as UNEP agency fee), which was (38%) and total co-finance committed to the project is USD 1,751,945, which represents 62% of the total cost of the project as shown in Table 2. The geographical reach was national, county Government and the local communities around the soda lakes.

Table 2: Total Project Cost

Sources of Financing	Name of Financier (source)	Type of Financing	Financing Amount (\$)
GEF Trust funds	GEF	Grant	913,265
Private company	JKUAT Enterprises Ltd	In-kind	101,100
National Government	JKUAT	in-kind	241,500
Private Company	Verenium Corporation	In-kind	96,597
National Government	University of Nairobi	In-kind	300,000
National Government	University of Nairobi Science and Technology	In-kind	228,500
National government	KWS	Grant & In-kind	210,000
Private Company	Kenya Industrial Research and Development Institute (KIRDI) Enterprise	Grant	210,000
Private Company	RIVATEX East Africa (Moi University Company)	Grant	250,000
Multilateral Agency	UNEP DELC	In-kind	114,248
<b>Total Co-financing</b>			<b>2,665,210</b>

Source: CEOER

### Project Results Framework

42. The project results framework presented in Annex 3 presents the project goal, objective, indicators, targets and monitoring milestones, means of verification as well as assumptions and risks.

## Project Objectives and Components

43. The objective of the project is utilization of microbial genetic resources within the protected Kenyan Soda lakes for research, development and commercialization of industrial enzymes and bio-pesticides for improved resource management and livelihoods in compliance with the Nagoya Protocol on Access and Benefit Sharing. This objective contributes to the United Nations Development Assistance Framework (UNDAF) Strategic Objective 3 outcome 3 'By 2022, people in Kenya benefit from sustainable natural resource management, a progressive and resilient green economy'. The project is undertaking valorization of microbial genetic resources found within the soda lakes for optimized benefits to the country. There are innovative strategies linking in-situ to ex-situ conservation measures through the culture collection at JKUAT. The Project intervention strategy is to address the prevailing barriers through 4 strategic components namely:
1. Component 1: To enhance the legal and regulatory framework on ABS in Kenya
  2. Component 2: Systematic discovery of natural products for bio-pesticides and industrial enzymes
  3. Component 3: Technology Transfer between resource provider and user operationalized
  4. Component 4: ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources

## Project GEF Budget and Expenditure

44. The actual expenditures were reported in accordance with the specific budget lines of the project budget of the CEO ER and expenditure report. Information on co-financing expenditure was not available. The project budget versus expenditure is presented in Table 3.

Table 3: Project Budget and Expenditure

UNEP Budget Line	Project Budget USD	Total Expenditure 30.09 2020	% Expenditure
Consultants	29,100	-	0%
Administrative support	23,000	20,840	91%
Travel on official business	35,000	23,161	88%
Group training	150,000	61,246	44%
Meetings/conferences	218,000	169,055	78%
Expendable equipment	209,600	6,258	3%
Non-expendable equipment	69,000	68,497	99%
Reporting costs	63,300	13,488	24%
Sundry	61,865	5,075	11%
Evaluation	4,400	-	0%
Midterm evaluation	20,000	-	0%
Final evaluation	30,000	-	0%
<b>GRAND TOTAL</b>	<b>913,265</b>	<b>367,620</b>	<b>40.2%</b>

Source: Approved Finance Reports 30<sup>th</sup> September 2020

## 2.0 Mid-Term Review Methods

### 2.1 Review Approach

45. The overall approach to the review was highly participatory and consultative virtual meetings. Key stakeholders were kept informed and consulted throughout the review process, both during design, implementation and report compilation. Both quantitative and qualitative MTR methods were used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. Close communication with the project team was maintained to promote information exchange throughout the review in order to increase stakeholder ownership of the review findings. Concurrence with the project team was sought to agree on the approach before embarking on a main phase such as data collection and report writing.

### 2.2 Methodology

46. The MTR was undertaken using a mixed methodology entailing desk reviews, consultative meetings and key informant interviews (KIIs) and in-depth interviews among local communities. The UN-Environment guidelines informed the questions to assess the project, particularly the effectiveness, sustainability and likelihood of impact. The findings of the review are based on the data collection methods discussed below.

- a) **Desk review** of key project documents was conducted to obtain background information on the project, results framework and achievements to date. The desk review enabled identification of gaps which were filled in during interviews with key stakeholders. The categories of documents reviewed are listed below and the full list of references is attached as Annex 6.

- Project Documents and the results framework
- Project reports such as PIR Reports, six-monthly technical progress reports and financial reports (GEF financial reports and co-financing report), progress reports from collaborating partners, meeting minutes and relevant correspondence.
- Legal contractual agreements such as Project Corporation Agreements (PCA), Internal Corporation Agreements (ICA) and Memorandum of Associations (MoAs)
- Minutes of the Project Steering Committee (PSC)
- Evaluations/reviews of similar projects

**b) Consultative/inception meetings**

47. Individual consultative meetings were conducted with the UNEP TM; and KWS project management teams. These meetings aimed at gaining concurrency on approach and methodology, agreeing on key stakeholders to engage in the interviews, obtaining key documents and seeking clarifications. Due to the COVID-19 lockdown, consultations were held using virtual means such as Zoom, email, WhatsApp and telephone.

**c) Key Informant Interviews (KIIs)**

48. The KIIs were conducted virtually among key stakeholders of the project. These entailed UNEP/GEF representatives, project managers, project implementers, project partners, relevant sectors and Project Steering Committee (PSC) representatives and other key stakeholders. Interviews were held virtually via Zoom, email, WhatsApp and telephone due to the COVID-19 lockdown that restricted physical movement persons. Annex 2 presents the list of key stakeholders consulted.

**d) In-depth interviews among local communities**

49. A virtual group interview was conducted among representatives of the local communities (the Endorois community). The purpose of the interviews was to obtain information regarding their

participation in the project, benefits accrued from the project, challenges/limitations of the project and suggestions for improvement in the remaining period of the project.

### **Analysing findings and key MTR principles**

50. The MTR findings were based on sound evidence and analysis of findings from various categories of key stakeholders provided by the project. The evaluator employed causal analysis to establish the relationship between implemented activities versus contribution to desired outcomes. Thematic analysis was conducted whereby information generated from the KIIs were organised into re-occurring themes, which informed development of the different sections. Systematic analysis was conducted to get a deeper understanding of the contextual factors affecting the project. To the greatest extent possible, information was triangulated with existing data sources. To catalyse learning for future programming, the evaluator went beyond the assessment of “what” the project performance was and made serious effort to provide a deeper understanding of “why” the performance was as it was.

### **Rating of Evaluation Performance**

51. The performance rating was based on UNEP Evaluation Criteria per assessment category. For instance, under effectiveness, less than 20% of the planned/approved outputs fully delivered is rated highly unsatisfactory, 21-40% is rated unsatisfactory, 41-60% is rated moderately unsatisfactory, 61-80% is rated moderately satisfactory, 61-80% is rated satisfactory, 81-99% is rated moderately, while 100% is rated highly satisfactory.

### **Limitations**

52. Due to COVID-19 lockdown, it was not possible for the evaluator to conduct site visits. Virtual means were therefore employed which limited on sight observations and participation by local communities. This was partly overcome by interviewing representatives of the local communities through a virtual group interview. This could have limited expression and participation of community members.
53. Among the key people selected for interviews were the GEF Operational Focal Point (Dr. Agnes Yobterik), the Chairperson of the Project Steering Committee (Dr. Erustus Kanga), one partner (University of Nairobi) and Baringo County Government officials who were not interviewed despite several attempts. However, triangulation of findings from desk review and key informant interviews from other stakeholders bridged the gap.

### **Ethics and human rights issues**

54. Ethics and human rights were ensured by the evaluator through maintaining anonymity and confidentiality by not directly mentioning the names of respondents while making quotes. In addition, all responses were reported as aggregate findings with no mention of the source of information. The views of all respondents were included and protected irrespective of sex, age or position.

### 3.0 Review Findings

55. The findings are organized according to the evaluation criteria. Ratings are provided at the beginning of the assessment of each evaluation criterion and the complete ratings table is included as Table 9, under the conclusions section. The performance rating was based on UNEP Evaluation Criteria per assessment category. For instance, under effectiveness, less than 20% of the planned/approved outputs fully delivered is rated highly unsatisfactory, 21-40% is rated unsatisfactory, 41-60% is rated moderately unsatisfactory, 61-80% is rated moderately satisfactory, 81-99% is rated moderately, while 100% is rated highly satisfactory.

#### A. Strategic Relevance

*The project's strategic relevance was ranked satisfactory.*

##### *1. Alignment UNEP Medium Term Strategy, Programme Work and GEF Strategic Priorities*

56. The project is aligned to the UNEP mandate, UNEP Medium Term Strategy (MTS), Programme of Work (POW) and UN Environment's policies and strategic priorities. The CEO ER does not explicitly indicate a clear alignment and relevance to UN Environment /GEF/strategic priorities, but the content and focus are very much aligned. The project is consistent with the ecosystem management thematic priorities, it will specifically contribute to the achievement of Expected Accomplishment EA (a): Use of the ecosystem approach in countries to maintain ecosystem services and sustainable productivity of terrestrial and aquatic systems is increased.

##### *2. Alignment UNEP/GEF Strategic Priorities*

57. The project is consistent and responsive to the GEF-5 Focal area (FA) strategies on Biodiversity (BD). In particular, the project contributes to achievement of BD Outcome 2.1: Increase in sustainably managed landscapes that integrate biodiversity conservation. UNEP hosts a number of agreements such as the Convention for Biological Biodiversity (CBD) where Nagoya Protocol on ABS is one of the actions that UNEP is promoting.

##### *3. Relevance Regional, Sub-Regional and National Environmental Priorities*

58. The project is relevant to national environmental priorities and is linked to the national strategy for Bioprospecting within and outside protected areas which was launched by Kenya government. The National Wildlife Strategy 2030 has a major element of access to benefits and incentives. ABS is a key component of the Kenyan constitution article 69-72, and in compliance with international commitments. The project conforms to EMCA, 1999 and the subsidiary EMCA law 2006 legal notice number 160 as well as the National Environment Policy, 2013. In addition, the project is aligned to the Wildlife Act 2013, Traditional Knowledge and Cultural Expression (TK&CE) Act, Wildlife Policy 2020, Science Technology and Innovation Act, National Biodiversity Strategy and Action Plan (NBSAP), the Health Act and the Kenya Vision 2030. The objective thereof is to transform Kenya into a newly industrialized, middle-income country providing a high quality of life to all its citizens by 2030. The project is further aligned to UNDAF, Sustainable Development Goals (SDGs) as well as Aichi targets 16 and 18. The government of Kenya has also ratified various multilateral environmental agreements for example the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and others which also includes elements of benefit sharing. The country has further signed and ratified the Nagoya Protocol. According to the constitution of Kenya, all multilateral agreements and treaties ratified form part of the Kenyan law. The Kenya Government has operational 2006 legislation on ABS which was reviewed to align it with the 2010 Constitution of Kenya and the Nagoya Protocol. The project is



further aligned to Kenya's Second Medium-Term Investment Plan 2013-2017 (MTIP) and third MTIP 2018-2022 whose objective is to increase area under forest and sustainably managed natural resources.

59. The project addresses environmental concerns and needs of the communities. The enzymes are environmentally friendly and bio-pesticides will replace commercial chemicals used which are detrimental to the environment and human health, which after being washed by rains go into water and cause diseases. Additionally, the project aims at achieving sustainable economic growth while ensuring environmental sustainability. The project has contributed to streamlining systems on ABS such as governance structures and establishing committees at national and county government levels, which is likely to solve lack of equitable share of benefits being a major issue. This enhances benefits to communities, awareness creation and conservation.

#### *4. Complementarity with Existing Interventions*

60. The project works with various stakeholders in different capacities, at different levels, including government, private sector and communities. The project complements other existing interventions funded by GEF and other funding agencies. The Baringo County Government and the GIZ contributed to the development of Lake Bogoria Management Plan.

### **B. Quality of Project Design**

*The overall quality of project design was moderately satisfactory.*

61. The quality of project design was rated satisfactory (Annex 4). The CEO ER includes a comprehensive analysis of external context, problem statement, project framework and strategic relevance to global, national and local community priorities. The project results framework includes outcomes, indicators, targets, source of verification and assumptions. The institutional arrangements are laid out showing supervision and reporting arrangements. The CEO ER lists key stakeholders in the project. The project design included a budget, risk identification and risk mitigation measures, as well as exit strategy interventions. The project had adequate preparatory arrangements before start, including an inception meeting, although the MTR did not obtain the inception meeting report or minutes. While the institutional and implementation arrangements were included, they were not adequately defined and did not clarify specific roles of all key parties on the project, such as DELC, KWS and sub-partners. In addition, there was no stand-alone project document. The CEO ER did not include the theory of change (ToC), but the consultant has developed it as part of MTR deliverables (Figure 1). The results framework lacked an elaborate monitoring plan and outputs were stated as activities rather than results. Some outcomes such as 3.1, 4.1 read like outputs rather than high level results. Some indicators were not SMART and measurable, and indicators and targets were stated as results. Some outputs do not link directly to the outcomes and some targets do not necessarily match outcomes. There was no standalone and comprehensive project exit strategy. Annex 4 presents the detailed assessment of the quality of project design. Additionally, there was limited deliberate effort to integrate gender issues during the project design and implementation.

### **C. Nature of External Context**

*The external context was moderately favourable.*

62. Several factors in the external context negatively affected project implementation. Climatic conditions such as heavy rains resulted into floods around the rift valley lakes including L.

Bogoria in October 2019 and May 2020. The floods are likely to affect the nature of biological diversity and may affect alkalinity hence organisms may no longer thrive. The flooding has already caused Flamingos to migrate to other places. More to that, the floods cut off access to L. Bogoria, the road to L. Bogoria was submerged and a new road had to be constructed hence limiting the collection of samples. It was also pointed out that, during the dry season, samples are more concentrated while during the wet season, they are dilute. Additionally, the rising water levels of L. Bogoria and the nearby freshwater lake, poses a threat of mixing fresh and soda lake water, hence affecting the flora and fauna. It was reported that only 16km were remaining for the fresh and salt water lakes to join. However, the MTR realises that by October 2019 when the flooding happened, the collection of samples should have been completed and actually the project should have ended.

63. The road infrastructure was motorable although negatively affected by heavy rains. The main roads were in good conditions, though feeder roads connecting to the L. Bogoria were difficult to navigate during the rainy seasons.
64. Politically, the August and October 2017 post-election violence affected the project area making it temporality impossible to engage communities within Baringo County and further limited sample collection This delayed sample collection by JKUAT and subsequent interventions. However, the MTR realises that by the August 2017, the project should have moved far and even then, a long time has passed since the elections for the project to have recovered and moved on well.
65. The security in the project implementation area was threatened by cattle rustling. During the periods of cattle rustling, the project implementation area would be temporarily cut off and hence limiting access to L. Bogoria for sample collection by JKUAT. However, the MTR observed that cattle rustling is a long time seasonally occurrence in the community that should not cause great impact on the project to have made it delay for six and half years.
66. However, there was cordial support from national and county government who worked well with the project team and committed resources for some interventions. For instance, Baringo County committed KES 1,500,000 for development of L. Bogoria Management Plan.
67. The COVID-19 pandemic affected project implementation due to the complete lockdown in 2020 and partial lockdown in 2021. As a result, universities and laboratories therein were closed and experiments could not continue. Travelling to collect samples could not be done during lockdown periods and principal investigators could not interact with researchers face to face. The lockdown further delayed the launch of the L. Bogoria Management Plan, which was ready by early 2020 but was launched towards end of 2020.
68. Non-boarding of Verenum Corporation and BASF created a gap and it took a long for the project to get a replacement. The MTR could not get substantial reasons why these partners pulled out of the project and efforts to interview them were futile. The same to DSMZ.
69. However, the MTR noted that these incidences such as floods and post-election violence were for a limited time and by the time the COVID-19 lockdown occurred, most of the activities ought to have been completed, especially sample collection.

#### **D. Effectiveness**

70. The rating of performance was based on UNEP Evaluation Criteria per assessment category. For instance, under outputs, if less than 20% of the planned/approved outputs is fully delivered, it is rated highly

unsatisfactory, 21-40% is rated unsatisfactory, 41-60% is rated moderately unsatisfactory, 61-80% is rated moderately satisfactory, 81-99% is rated satisfactory, while 100% is rated highly satisfactory.

## 1. Achievement of Direct Outputs

Effectiveness was rated unsatisfactory (0-20% of the planned/approved outputs were delivered fully, and only (11.1%) of outcomes were fully achieved (as per UNEP Evaluation Criteria). The likelihood of impact is not definite since most outputs and outcomes have not yet been realised.

71. The project had a total of 23 outputs, of which only 6 (26.1%) had been fully achieved, 1 (4.3%) had achieved 81 - 99%, 7 (30.4%) had achieved 61-80%, 4 (17.4 %) had achieved 41- 60%, 2 (8.7%) had achieved 21- 40%, while 3 (13.1%) had achieved 0-20%, as presented in Table 4 and detailed in Annex 1A. Overall, the project had not yet achieved most of the outputs, which indicates a high likelihood of not achieving most outputs even after the anticipated no cost extension that will end in December 2023.

Table 4: Achievements by Outputs

No of Outputs Attained	List of Outputs	Achievement of Target (%)
<b>6 (26.1%)</b>	1.1.1, 1.1.2, 1.2.3, 2.1.3, 3.1.2 & 4.1.1	100%
<b>1 (4.3%)</b>	2.1.1	81-99%
<b>7 (30.4%)</b>	1.2.1, 1.2.2, 2.1.2, 1.2.4, 3.1.3, 3.2.1, & 4.1.2	61-80%
<b>4 (17.4 %)</b>	1.1.3, 2.3.1, 2.4.1 & 3.2.2	41-60%
<b>2 (8.7%)</b>	2.2.1 & 2.3.2	21-40%
<b>3 (13.1%)</b>	2.2.2, 3.1.1 & 3.1.4	0-20%
<b>Total = 23</b>		

72. Component 1: Enhancing legal and regulatory framework on ABS in Kenya, is very likely to be achieved where 5 out of 7 outputs had been fully achieved.

Component 2: Systematic discovery of natural products for bio-pesticides and industrial enzymes, is not likely to be achieved, since only 1 out of 8 outputs had been fully attained.

Component 3: Technology Transfer between resource provider and user operationalized, is not likely to be achieved, since only 1 out of 6 outputs had been fully attained.

According to Office of Internal Oversight Services (OIS) Audit Report of September 2020, the deliverables outlined in the logical framework of the project did not have measurable performance indicators. As a result, **OIOS could not established the basis for the percentage of implementation indicated in the performance**

Component 4: ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources, is very likely to be achieved, since 1 out of the 2 outputs had been fully attained and 80% of the second output had been delivered.

## 2. Achievement of Direct Outcomes

The project had 9 outcomes and of which only 1 (11.1%) was fully achieved at 100%, 1 (11.1%) had achieved 81 - 99%, 6 (66.7%), had achieved 61-80%, 1 (11.1%) had achieved 41-60%, as presented in the table below and as detailed in Table 5 and Annex 1A. Some of the partially achieved outcomes were those most important to attain intermediate states/impact, such biopesticide trials hence delaying subsequent activities by RIVATEX and Dudutech who have been waiting to begin on their main interventions.



Table 5: Outcome Achievement Rating

No.	Outcomes	No. of Indicator Targets	% Achievement
1.	1.1 Outcome Policy, legal and regulatory frameworks on ABS upgraded in compliance with the provisions of the Nagoya Protocol	2	70%
2.	1.2 ABS institutionalized in protected areas as a tool for enhanced conservation and livelihood improvement	4	80%
3.	2.1 At least 1 potential microbial isolate characterized and deposited at the culture collection centre at JKUAT	2	90%
4.	2.2 At least 1 enzyme product developed for agro-processing, starch and fuel, textile, food and beverage industries	1	80%
5.	2.3 At least 1 biopesticide for enhanced seed and seedling treatment developed by the participating Kenyan institutions and the private companies	2	75%
6.	2.4 A living library of Kenyan Soda lakes Microorganisms established at JKUAT	2	100%
7.	3.1 Technology transferred to local research institutions and protected area systems management	1	50%
8.	3.2 An effective bioinformatics system in Kenya at KWS for Soda lakes microbial discovery to act as a system for monitoring and evaluation established	1	80%
9.	4.1 ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources	1	80%

The main project achievements at output/outcome level were:

73. *Reviewed and strengthened ABS related legislative and policy framework*, for instance the Wildlife Act 2013, EMCA 2015, County ABS laws and Bicultural Protocols for the Endorois community leveraging on UNDP supported projects. However, the project contributed to the development of the National ABS law, although it is not yet finalised.
74. *Serving as a model for practical implementation of Nagoya protocol* on realization of access and benefit sharing arising from utilization of genetic resources for informed decision-making leading to effective policies and legal frameworks. The MTR established that the biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol project has turned out to be a model project showcasing practical ways for implementation of Nagoya Protocol on ABS. It has been showcased in international meetings e.g. the Conference of Parties (<https://www.thegef.org/publications/gef-27-years-biodiversity-africa>) and also being used for justice and equity solutions under UNESCO World Heritage (<https://whc.unesco.org/en/sessions/43com/documents/>) and <https://whc.unesco.org/document/171621> and UNHCR on Lake Bogoria National Reserve and the Endorois community Sudan and some African countries are using the ABS agreement and processes as a guide.
75. *A one-stop shop for the permitting process* established through formation of the national integrated online permitting system. This has strengthened monitoring by regulatory agencies such as NACOSTI regarding access and use of genetic resources. There has been streamlining of institutional arrangements, clarifying the different roles regarding to permitting, resource provision and the like. Consequently, there has been increased compliance and access to permits.
76. *Increased awareness on ABS principles and benefits* of sustainably managing resources. County governments, local communities and partner institutions have been sensitised on value of genetic resources and the need to conserve biodiversity and protect them.

77. *Institutionalisation of ABS at local and national levels* resulted into increased awareness on ABS, communities started organising themselves into proper governance structures and established ABS county and structures. Various county ABS technical committees were established to streamline ABS at county level in line with the National government and Kenya Constitution. This is part of the on-going review process under the Wildlife Conservation and Management Act (WCMA) 2013, streamlining Bioprospecting, and sharing benefits from Wildlife resources including the proposed establishment of the Wildlife Conservation Fund.
78. *Enhanced ABS capacity*. Guidelines for PIC, MAT and MTA were developed to guide bioprospecting activities and are being harnessed by resource users for access and utilization of biological resources under various approvals, permits and licences. Local capacities for soda lakes microbial curation and storage enhanced through training personnel and improving the capacity of culture collection.
79. *Establishment of the national culture collection centre*. The culture collection centre established at JKUAT is serving as a reference for microbial repository in the country. The process of linking it to the national patenting office is on-going. Potential microbial bio-pesticides were identified and deposited at JKUAT. A database of previously isolated microorganisms from the soda lakes was established showing the players, source and storage.
80. *Development of L. Bogoria Management Plan*. The L. Bogoria management plan was developed and launched during the 10<sup>th</sup> Nagoya Protocol Anniversary celebrations. This spelt out a mutual working relationship between Endorois communities and the county governments. The management plan developed increased community benefits from 10% to 25%. Communities are now more involved in decision making on the reserve management processes. The model management plan is being used as a best practise for ABS in park management. However, the CEO ER mentions 2 management plans, yet the project developed only one.
81. *Bioprospecting included as key component of the Wildlife Policy 2020 and the Wildlife Strategy 2030*. Bioprospecting was recommended for inclusion in the review of wildlife governance and utilization including institutional arrangements.

### **Observation**

82. The MTR noted that the project implementation did not closely adhere to the CEO ER in some areas. The project had further planned for more than one lake, under output 1.4 (Bogoria, Elementaita and Simbi Nyaima), but has so far been working around L. Bogoria only. According to the CEO ER, the project targeted to develop two management plans, so far one has been developed one. The project pointed out insufficient funds as one of the limitations.

The MTR noted that the project has been slow on sample collection and enzyme trials, which has consequently delayed other activities particularly those for the private sector relating to transfer of technologies, production and commercialisation of microbial biopesticides.

### ***3. Likelihood of Impact***

83. *Impact*: Since less than a quarter (22%) had been fully achieved, the likelihood of impact was mainly in terms of anticipated results that are likely to accrue from long-term utilisation of the strengthened ABS legislation and incorporation of ABS into the national regulatory frameworks to continue guiding and regulate ABS. The developed L. Bogoria Management Plan will ensure sustainable management of resources sharing accrued benefits contributing to improved livelihoods. The online permitting process will harmonise and regulate access to natural

resources. The established national culture collection centre will continue serving as a repository centre. The ABS model is already informing many benefit sharing agreements in African region and beyond. A safer environment due to reduced use of chemicals in favour of bio-pesticides.

**84. *Internal factors that contributed to delayed project completion included were:***

- Delayed on boarding of partners (KWS signed the Project Cooperation Agreement (PCA) in 2014 but partners signed in 2017 and some received funds as late as 2018, while Dudutech signed in 2019). The interventions for industrial partners were dependant on other activities and could not happen simultaneously but had to wait. The industrial partners had to wait for research institutions to collect and test enough samples. For instance, RIVATEX was waiting for bio-pesticides to market them among cotton growers that supply cotton to the factory. Dudutech was waiting for bio-pesticides to be developed and market them to farmers for use.
- The Verenium Corporation and Deutsche Sammlung von Mikroorganismen und Zellkulturen (DSMZ) were the key private sector entities, however, they did not participate in the project and the MTR could not establish substantial reasons why these two main industrial partners could not participate in the project. This caused a significant negative impact on implementation of project components 2 and 3, which are lagging behind. It was reported that Verenium Corporation was acquired by BASF which is still operational in Kenya, dealing in biopesticides. DSMZ is also operational in Kenya working in partnership with UoN in the same discipline. It was reported that the remaining partners had no capacity to produce enzymes at the scale that RIVATEX wanted, since it was Verenium Corporation that had that capacity. Dudutech was deemed to lack the capacity to implement what Verenium was supposed to do, particularly the scientific and technology transfer aspects. It was reported that to date, there are not enough samples collected for commercialisation purposes, which is not likely to be accomplished even with the project extension due to limited technical capacity.
- DSMZ was not included in the MoA yet they were supposed to provide expertise in documentation and quality management information systems for the microbial culture, provide improved ex-situ preservation of the microbial culture collection and a repository for isolates, transfer technology (including equipment, knowhow and training) to local research institutions and protected area systems management; and collect 500 samples from the Soda lakes and isolate 20 pure strains with cellulase, and generate 5 isolates producing bioactive secondary metabolites. DSMZ and Verenium were supposed to provide a repository of duplicate samples in their culture collection centre as defined by the PIC and MTA, while the originals were to be kept at JKUAT.
- Lack of a functional bio-reactor for the project to scale up production of enzymes was also pointed out by KIIs as a major hinderance for the project. According to project design, UoN was expected to be having enough bio-reactors and all other equipment. It was reported that the UoN bio-reactor broke down and is now undergoing repair.
- Respondents pointed out that since implementation of the Nagoya Protocol was explorative, hence designers and implementers did not have full knowledge regarding the exact technology and other resources required including the required timeframe. This was reported by some partners as having contributed to delayed implementation of project activities.
- It was also pointed out that the assigned project staff for partner institutions were pre-occupied with other institutional assignments, taking project work as secondary and not dedicating as much time as required, hence lagging behind in implementation. This is

because they were not fulltime staff and hence focused where they are appraised and expected to be on a fulltime basis.

- Late release of the second disbursement of funds from UNEP Division of Environmental Law and Conventions (DELIC) to KWS and later from KWS to partners, the first disbursement of funds was on 13<sup>th</sup> November 2014) while the second disbursement of funds on 24<sup>th</sup> December 2015, partly due to UNEP's migration to a new financial system (Umoja). However, the MTR did not see this as a reason since KWS has only utilised 40% of the total funds received by 2017 and the fact that the MoA with partners was signed as late 2017.

85. *External factors that affected project included:*

- Additionally, pre-occupation of project staff with core institutional assignments; the project being explorative without full knowledge of technology and time requirements as well as the COVID-19 lockdown also contributed
- Climatic conditions such as heavy rains resulted into floods around the rift valley lakes including L. Bogoria in October 2019 and May 2020 and cut off the lakes.
- Politically, the August and October 2017 post-election violence affected the project area making it temporality impossible to engage communities within Baringo County and further limited sample collection This delayed sample collection by and subsequent interventions.
- The security in the project implementation area was threatened by cattle rustling. During the periods of cattle rustling, the project implementation area would be temporarily cut off and hence limiting access to L. Bogoria for sample collection. However, the MTR observed that cattle rustling is a long time seasonally occurrence in the community that should not cause great impact on the project to have made it delay for six and half years.

86. However, the MTR realised that these external factors were for a short period of time and should not have significantly affected implementation. In addition, by the time most external factors occurred, the project implementation should have achieved a lot.

## **E. Financial Management**

*The project financial spending was rated unsatisfactory.*

### *1. Rate Spending*

87. The total approved cost of the project is USD 2,665,210, of which GEF contribution is USD 1,000,000 (38%) [913,265 as project grant and 86,735 as UNEP agency fee] and total co-finance of USD 1,751,945, which represents 62% of the total cost of the project. GEF funds expenditure at the time of the submitting the first MTR report as uploaded in the financial management system (Umoja) was USD 117,431, which was representing only 12.9% of the GEF project cost. However, an additional USD 206,631 was subsequently uploaded in Umoja on 23<sup>rd</sup> July 2021, hence the total of USD 367,620 representing 40.2% of the GEF project grant (913,265), and 61% of received advance (USD 600,989). KWS submitted a request for no-cost extension from September 2020 to 30 September 2022 while UNEP Africa Office requested for up to December 2023. It is anticipation that the remaining 59.8% of GEF grant will be sufficient to run the project to the end. The MTR was not able to report on the co-finance rate of spending because the co-finance reports submitted by KWS had not been approved by UNEP Africa Office and UNEP Ecosystems Division. The expenditure against the budget is represented in Table 6.

Table 6: Project Budget and Expenditure

UNEP Budget Line	Project Budget USD	Total Expenditure 30.09 2020	% Expenditure
Consultants	29,100	-	0%
Administrative support	23,000	20,840	91%
Travel on official business	35,000	23,161	88%
Group training	150,000	61,246	44%
Meetings/conferences	218,000	169,055	78%
Expendable equipment	209,600	6,258	3%
Non-expendable equipment	69,000	68,497	99%
Reporting costs	63,300	13,488	24%
Sundry	61,865	5,075	11%
Evaluation	4,400	-	0%
Midterm evaluation	20,000	-	0%
Final evaluation	30,000	-	0%
<b>GRAND TOTAL</b>	<b>913,265</b>	<b>367,620</b>	<b>40.2%</b>

Source: Finance Report 30<sup>th</sup> September 2020

## 2. Quality and Consistency of Financial Reporting

### Financial Reports

88. The approved budget was aggregated by component as per UNEP template, hence not broken down by outcome and output, making it difficult to analyse expenditure at output level in comparison to the budget. KWS submitted a revised budget to the UNEP Africa office on 15<sup>th</sup> September 2020 to support a no-cost extension of the project to September 2022 but it had not yet been approved. The Africa Office has not yet submitted its revised budget to Ecosystem division but only submitted the KWS budget. Even that KWS budget was not done in the right manner according to the TM. The MTR recommends that there should be a joint meeting between the whole project team to finalise the budget revision process.
89. KWS has had 3 transfers of funds from UNEP amounting to USD 600,989 (USD 160,989 from UNEP DELC and USD 440,000 from UNEP Africa Office). At the time of submitting the first draft MTR report, the finance reports submitted by KWS, approved and uploaded in the UNEP financial management system amounted to USD 117,000 (12.9%) capturing expenditure of up to 31/12/2016. However, at the time of finalising the MTR report, more financial reports had been uploaded in the system (Q4 2019, Q1 2020, and Q3 2020), increasing the financial expenditure to 40% (USD 367,620) as of September 2020, hence the un-accounted for advance of USD 233,369 for funds advanced in September 2017. The reports were subsequently reviewed and approved and were posted into the financial management system on 23<sup>rd</sup> July 2021 as per information provided by the Ecosystems Division finance unit. The MTR could not establish why 2019 and 2020 reports had not been posted earlier but posted in 2021. The reports for October 2020 to June 2021 were still missing due to expiry of the PCA, and request for no-cost extension by KWS was not yet approved. There were also no annual external audits conducted for the project as stipulated in the PCA. The audit report shared with the consultant was for the entire KWS for all government funded programs for the period 2012-2015. The MTR could not establish why a specific project audit was not conducted, yet the project had budgeted for the audit exercise. This renders the financial management reporting incomplete and inconsistent with the reporting requirements as per ICA and PCA.
90. With regard to inventory reports, only 3 partners (JKUAT, Moi University and KWS) submitted inventory reports worth USD 68,496 by MTR time. According to UNEP Ecosystem Division finance team, reporting on inventory did not follow the prescribed format and the inventory list



was not provided. The finance team at Africa Office is supposed to finalize the review of the submitted inventory reports and confirm approval before submission to UNEP Ecosystems Division as outlined in the ICA reporting requirement clauses.

91. The rate of spending on co-financing was not articulately reported while most of the co-finance reports were not properly compiled; hence, not approved by Africa Office and Ecosystems Division. Out of the 9 co-finance partners in the CEO ER, UNEP DELC and Verenium Corporation did not submit any co-finance reports, while for the 7 who submitted, the reports were not complete as detailed in Table 7. It should be noted that UNEP DELC and Verenium Corporation pulled out of the project and so, there is need to agree on how the promised co-financing will be realised. The UNEP Africa Office which replaced DELC is expected to submit the co-finance reports.

Table 7: Status of co-financing as per CEO Endorsement Request

	Source	Cash	In-kind	Total Committed	Co-finance Reporting Status
1	JKUAT Enterprises Ltd	-	101,100	101,100	The report was not submitted using the standard co-finance GEF reporting template. UNEP is yet to receive revised reports from JKUAT.
2	JKUAT	-	241,500	241,500	
3	Verenium Corporation	-	96,597	96,597	No reports submitted, pulled out of the project.
4	University of Nairobi (UoN)	-	300,000	300,000	Ecosystems division received combined co-finance report covering May 2018 – June 2020. The report's financials were presented correctly, however, there is no evidence of review of the reports by the UNEP Africa Office Project Manager, he did not sign them off and more so, the project's title is missing.
5	University of Nairobi Science and Technology	-	228,500	228,500	
6	KWS	110,000	100,000	210,000	Only two co-finance reports (July 18 – June 2019 and July 2019 – June 2020) were received by the Ecosystems division, these reports however had errors in capturing the total. All the previous period co-finance reports are required to enable review of the submitted report since it has prior year figures. UNEP Africa Office is yet to receive revised reports from KWS.
7	KIRDI Enterprise	210,000	-	210,000	Only two co-finance reports (April 2019 – June 2019 and October 2019 – June 2020) were received by the Ecosystems division, these reports however had some errors in capturing the totals. The next co-finance report starts from October 2019 instead of July 2019. This needs to be validated.
8	RIVATEX East Africa (Moi University Company)	250,000	-	250,000	Submitted one report which is missing the project title, the reporting period and an official stamp.
9	UNEP DELC	-	114,248	114,248	No reports submitted
<b>Total USD</b>		<b>570,000</b>	<b>1,181,945</b>	<b>1,751,945</b>	

### Sub-Awards Partners

92. Out of the total GEF funds budget of USD 913,265, KWS had received USD 600,989 (65.8%) of which USD 284,024 (47%) was transferred to partner institutions and USD 316,968 (53%) remained with KWS for implementation of activities allocated to KWS. However, there were no individual partner funding agreements signed with KWS. Instead, KWS signed one joint collaborative agreement with all partners without specific amount of money for each institution, and whether there will be subsequent disbursements or not and when. Thereafter, requests and

transfer of funds per institution was guided by implementation matrix (Annex 7), as agreed amongst the partners during the partners' meeting. However, the evaluation team did not get the minutes of the meeting and even the implementation matrix was not counter signed. It is therefore difficult to legally link the matrix to the collaborative agreement. Due to the absence of individual signed partner agreements, it was not possible to determine what each partner is entitled to and whether there will be an additional disbursement in future. All funds were electronically transferred from KWS to each partner institution and respective partners acknowledged receipt of funds. Table 8 shows amount sub-awards to each partner.

93. The 5-year MOA signed by partners states that it becomes binding on the date of the last signature yet the signatories did not indicate signing dates, rendering it difficult to tell the effective date. Secondly, the addendum to add Dudutech was signed in 2019 remained with the same end date for all partners despite their different onboarding times. Important to note was that Dudutech had not yet received project funds by MTR, it was reported by KWS that Dudutech was not supposed to receive money but the MTR is of the view that all partners that are supposed to deliver project outputs should receive project funding. According the CEO ER, Verenium Corporation (now replaced by Dudutech), was supposed to implement output 4.1.1 of outcome 4.1 and output 3.1.4 of outcome 3.1 and it is expected that all project outputs were budgeted for, otherwise a budget revision is required.

Table 8: Sub-Awards to Partners

Institution	USD Transferred	% GEF Funds Received	Amount Accounted for
1. KWS	316,968	53%	TBD
2. JKUAT	142,800	24%	TBD
3. KIRDI	45,000	7%	TBD
4. Moi University/ <b>RIVATEX</b>	33,000	5%	TBD
5. University of Nairobi	63,224	11%	TBD
<b>Total</b>	<b>600,989</b>	<b>100%</b>	<b>TBD</b>

94. Out of USD 600,989, KWS retained USD 316,968, while partners received USD 283,930. It should be noted that out of the total disbursement, only USD 367,620 (40%) has been accounted for. The MTR could not establish whether this accounted for funds is the money that remained with KWS, the one that went to the partners, since financial reports were not disaggregated by partners. UNEP finance team needs to do further analysis of reports to establish whether the funds reported by KWS is the one which had been retained by KWS or the one that went to partners.

### 3. Communication between Finance and Project Management Staff

**Communication between finance and project management staff was rated highly unsatisfactory.**

95. There was a communication gap between the TM, Africa Office since each of the parties felt that they were not getting adequate information from the other. KWS finance team reported not receiving feedback on submitted reports.
96. Lack of a proper handover system amidst staff changes at different arms of UNEP (Ecosystems Division, DELC, and Africa Office) affected the flow of information and archiving of project documentation.
97. The UNEP Ecosystems Division has had several changes in Task Managers (TMs), Mohammed Sessay (2014 - 2015), Adamou Bouhari (January 2016 - December 2016), Mohammed Sessay (January 2017 - September 2017), Jane Nimpamya (October 2017 to date). However, KWS and

the partners reported to have known the current TM in July 2020 yet she took up the role in 2017, confirming poor communication between UNEP and project partners.

98. For execution within UNEP, the project was originally to be executed by UNEP DELC with Kambu as the Project Manager (PM) from January 2014 to December 2016 and Emmanuel Andonsou (January 2017 - July 2017). The project was then moved from UNEP DELC to UNEP Africa Office and the PM was Robert Wabunoha (July - October 2017) after which Levis Kavagi took over (October 2017 to date). Project partners reported not to have understood the roles of the different divisions within UNEP. UNEP is perceived as one implementing organisation.

## Efficiency

*Efficiency rated unsatisfactory.*

### *Financial Delivery*

99. GEF funds expenditure to-date as recorded in UNEP financial management system is USD 367,620 representing 40.2%. The expenditure reported is not a good reflection of the lapse of time so far (6.5 years since commencement of the project).

### *Output Delivery*

100. The project had a total of 23 outputs, of which only 6 (26.1%) had been fully achieved, 1 (4.3%) had achieved 81-99%, 7 (30.4%) had achieved 61-80%, 4 (17.4 %) had achieved 41-60%, 2 (8.7%) had achieved 21-40%, while 3 (13.1%) had achieved 0-20%, as detailed in Annex 1A. Overall, the project had not yet achieved most of the outputs, which indicates a high likelihood of not achieving most outputs even after the anticipated no cost extension that will end in December 2023.

### *Project Management and Governance*

101. UNEP Ecosystems Division as a GEF Implementing Agency received a project approval from GEF Secretariat on December 5<sup>th</sup> 2013 for the project worth USD 1,000,000, including GEF agency fee. UNEP Ecosystems Division signed an Internal Cooperation Agreement (ICA) with UNEP DELC starting on 22<sup>nd</sup> July 2014 to 30<sup>th</sup> April 2019 for internal execution. In-turn, UNEP Ecosystems Division signed an ICA with UNEP Africa Office starting on 24<sup>th</sup> July 2017 and ending on 31<sup>st</sup> Dec 2018 before terminating or closing the ICA with UNEP DELC. The MTR was not able to obtain justification as to why the internal execution role of the project was transferred from UNEP DELC to UNEP Africa Office as the roles of UNEP Africa Office or UNEP DELC on the project remained the same. In addition, the project design does not specify roles for participation of UNEP DELC/Africa Office in the project. As such, in the project management chain, the role of either DELC or Africa Office is seen as redundant and as a conduit for flow of funds without any specific technical activities. Furthermore, the execution role to be performed by either DELC or Africa Office in the ICA, is the same role to be performed by KWS in the PCA. According to KWS, they do not know the difference within UNEP divisions, they see UNEP as one organisation representing the implementation agency.
102. The ICA between UNEP Ecosystems and UNEP Africa Office has had 2 no-cost extensions as follows: the original ICA was signed on 24<sup>th</sup> July 2017 valid up to 31<sup>st</sup> December 2018; the first amendment was signed on 9<sup>th</sup> July 2018 valid till 31<sup>st</sup> December 2020 while the second amendment was signed on 3<sup>rd</sup> March 2021 valid up to 31<sup>st</sup> December 2023. The MTR established that the second ICA extension was done against the advice of the technical team of UNEP



Ecosystems Division due to lack of substantial justification for the extension that had been stated in the extension memo.

103. The project is way behind schedule which has resulted into a request of 2 no cost extensions. The original PCA between UNEP and KWS was signed on 14th August 2014 for a 5-year period to 31st August 2019. The PCA was amended on 28th October 2019 to provide for a one-year no-cost extension of the project to 30th September 2020. KWS further requested for a 2nd no-cost extension from 1st October 2020 to 30th September 2022 but it had not yet been granted by MTR time. The PCA has since expired and at the moment, there is no legal agreement between UNEP and KWS.
104. The delays in project implementation (timeliness) have had negative impacts on other partners; the industrial partners (RIVATEX and Dudutech) reported that they could not start on most of their interventions for commercialisation of bio-pesticides since this activity depends on research universities to have produced the bio-pesticides. The delays in project implementation were attributed to the following: The prolonged general elections in Kenya in 2017 during which the Government of Kenya issued instructions freezing public expenditures until after the formation of the new Government. This delayed activities for most partners since they were government institutions, and had to wait till accounts were unfrozen. However, the MTR noted that this was for a short time compared to the time this project has taken (6.5 years). Elections were July – Oct 2017 and by Jan 2018, the new govt was in place.
105. Verenium Corporation, one of the initially planned private partners as per project design, was acquired by Badische Anilin and Soda Fabrik (BASF) Germany and consequently did not participate in project implementation but the severing of the relationship was not documented. It was noted that there was extreme delay in bringing on board a replacement (5 years between 2014 and 2019), the decision to replace Verenium Corporation with Dudutech was approved at the PSC meeting of October 2018, to take up the role that was supposed to be performed by the Verenium Corporation according to project design. However, it was established DSMZ and Verenium Corporation were responsible for technology transfer to local research institutions as per project design. The MTR could not establish whether Dudutech has the capacity to substitute the roles of DSMZ and Verenium Corporation in terms of technology transfer. Under component 3, Verenium Corporation was a resource provider whereas Dudutech is more of an end user focusing on commercialisation of bio-pesticides as communicated in KII interviews. Efforts to interview Verenium Corporation to ascertain reasons as to why they did not participate in the project were futile. KWS reported that the company was bought and therefore stopped existing. Likewise, efforts to interview DSMZ were also futile, yet they were a very key stakeholder in the project according to the design.
106. Additionally, there was delayed disbursement of funds from UNEP DELC to KWS for 6 months due to system change to Umoja in 2015. The MTR established that this delay was caused by having a layer between UNEP Ecosystems Division and UNEP DELC, otherwise UNEP Ecosystems Division says they would have wired money to KWS before the system change started. Furthermore, the MTR observed that a delay of 6 months in 2015 should not be a factor for causing this level of lagging behind of project implementation of 6.5 years with delivery of below 50%. It should be noted that by 2015, KWS had already received USD 112,200 (see par below);
107. Delayed on boarding of partners in 2017 and subsequent delay in disbursement of funds from KWS to partners, with some receiving funds as late as 2018 with no clear justification for the delay. KWS had received 3 disbursements of funds from UNEP on 13/11/2014 (USD 112,200);

24/12/2015 (USD 48,789) and 27/10/2017 (USD 440,000, yet partners only received funds in 2018.

108. The lockdown period due to COVID-19 pandemic curtailed movements for sample collection and laboratories were shut down. However, it should be noted that the sample collection should have ended by the time of the lockdown. KWS should provide mitigation measures on how they intend to mitigate the COVID-19 effects going forward.
109. The project started under UNEP DELC in 2014 before it was transferred to UNEP Africa Office in July 2017. From interviews conducted, there was no proper and smooth handover of the project at all levels (UNEP DELC to UNEP Africa Office and from one TM to another). As such, a couple of documents such as the approved budget, Project Document and associated annexes, funds transfer form from DELC to KWS and cash advance requests, could not be easily traced.
110. The KWS has been introduced to five project/task managers at UNEP the since inception of the project, which has negatively affected consistency of feedback and technical support. For instance, by MTR time, the UNEP financial management system did not have up to date reports as evidence to this. Although staff attrition is inevitable in projects, the project has taken much longer time than anticipated time and hence a number of staff that were previously trained have left the institutions at different levels. There is a learning curve every time a new staff is recruited, affecting the quality of project reporting and smooth continuity. For instance, some project partners reported that they did not understand how the co-finance works and have therefore not been able to provide correct data regarding co-financing, yet it forms 66% of the entire project cost. The MTR observed that there is need to trained partners on the reporting.
111. Bureaucracies in release of funds particularly among universities, with several signatures required before release of funds, further delayed implementation. Different participating institutions with varied finance policies delayed release of funds. The quote below highlights the level of bureaucracies in some universities:
- “Currently the university needs over 25 signatures to get financial approvals”, remarked one university KII respondent.
112. Additionally, at partner level, co-mingling of funds was reported where project funds were mixed with other institutional funds. As such, some institutions temporarily diverted project funds to support other institutional activities. The MTR recommends that UNEP should make a strong follow-up to trace how this money could be properly accounted for.
113. Partners reported a silo mentality where institutions often worked independently, yet it is a collaborative project. The silo approach has brought out individualism of institutions, therefore openness and sharing of information became a challenge. The reports are sent by KWS for UNEP Africa Office directly without other partner involvement and review meetings bringing together institutions were said to be ad hoc, rather than planned and regular.

## Value for Money

### *Adequacy of Funding*

114. The project budget was designed up to component level and since it was not developed according to outcomes and outputs, it was difficult to ascertain the adequacy of funding. According to KWS, the funds were not adequate, that is
- However, this is disputed by the TM by saying that GEF cannot approve a project without adequacy of funding. There is always room for budget revisions to capture the situation on the ground and neither KWS nor UNEP ROA has never brought this issue to the attention of the TM.

why there was leveraging of funding. For instance, it was pointed out that component 2 on discovery had no provision for students' support and thus the students' training had been complimented by students at Master's and PhD levels. Hence some left for projects with facilitation.

115. KWS disbursed funds to partners based on agreed activities in the work plan and budget. The transfer per institution was guided by the activity per institution as agreed amongst the partners during the partners meeting. The partners developed the implementation matrix, with funds distribution per activity per institution (breakdown of funds received) and this is what was used by each partner institution to request for the funds from KWS. However, the transfer happened under a joint agreement and it is not clear how much each partner should expect throughout the project period to accomplish their key deliverables and whether more disbursements were expected.
116. UNEP Africa Office reported that the project did not take into account its monitoring and supervision costs. This issue ought to have been discussed and concluded before the ICA between UNEP Africa Office and UNEP Ecosystems Division was signed. The MTR established that M&E funds amounting to USD 15,000 were included in the budget revision by KWS to UNEP. According to UNEP Ecosystems Division, the submitted budget had errors and was not approved. The TM reported having requested for a meeting to train KWS on how to generate a budget revision, but said that her request was not granted.
117. KWS and UNEP Africa Office reported that the annual audit fees of the project by KWS were not taken into account. However, the MTR established that the audit fees of USD 4,400 were included in the original budget. This indicates a weakness in project management by KWS and UNEP Africa Office for not paying attention the details of the project support document.

#### *Cost Saving Strategies*

118. The delayed project completion has affected project partners in terms of additional costs even when the grant is fixed. As such, KWS and partner institutions have implored cost saving strategies such as combining some activities and use of online resources to cut costs such as Moi University project staff went to Nairobi to conduct audits in all universities and at the same time conducted awareness meetings on the same trip without having them as 2 separate interventions at different times which would have costed the project more money. However, the MTR could not establish why KWS could not request for more money from UNEP since it is available instead of stretching partners.

#### *Timeliness of the Project*

119. The project is behind schedule, there were delays in the disbursement of funds at all levels. At UNEP level, there was more than six months' delay in release of funds by UNEP to KWS due to system migration at UNEP in 2015.
120. At KWS level, there was delay in dispatching funds to partner institutions due to different financial policies at KWS and partner institutions, for example setting up financial management systems so that funds can get to partner accounts directly but eventually funds had been disbursed to all partners by 2018.
121. Partners also expressed concern over delayed receipt of the subsequent disbursement of funds from KWS, after exhausting the received funds such as Moi University and RIVATEX. The MOA does not specify when the next disbursement is due and how much, yet some partners were expecting funds to conduct project activities. Financial expenditure reports did not break down

expenditure by sub-partner as attachments to the main report submitted by KWS to UNEP, showing which partners had accounted for funds and which ones had not.

122. UNEP delayed to offer the anticipated training to KWS especially on the use of reporting templates with the initial training happening in March 2021 (7 years after commencement of the project), which has contributed to the inaccurate and incomplete reporting. The MTR observed that the project team requested for this training during the PSC meeting of 2015 and it was approved by the PSC and recorded in minutes, yet, it ought to have taken place much earlier than 2014. According to the same PSC minutes, this meeting took place after the inception workshop confirming that there was no training during the inception workshop.
123. There was delayed on-boarding of partners, who signed the MoA on 15/6/2017 yet the PCA was signed in 2014, almost 3 years after the project start date, which delayed implementation of activities.
124. The delayed project completion has caused some partners to incur additional costs. For instance, the co-finance report compiled by Moi University (unapproved) indicates that the University has already exceeded the committed co-finance. Moi University committed in-kind contribution of USD 300,000 to the project, the unapproved report as at 31<sup>st</sup> May 2020 shows that USD 449,973 has already been committed to the project yet it is anticipated to end in September 2022 (2 more years to go). This calls for re-negotiation of co-financing for the remaining period of time.

#### *Leveraged Financing*

125. KWS made efforts to secure leveraged financing; for example; KWS secured KSH 1.5m from the County Government of Baringo towards development of the management plan. The project further benefited from the GEF - UNDP Global ABS project (USD 350,000), although this was not directly supporting the project but supported the ABS framework in the country from which the project benefited since it was part of their results framework. KWS also secured USD 10,000 towards the ABS initiative that supported the development of community bio-cultural protocol.
126. *Use of Existing Structures* - The project is in line with government priorities which made it easy to implement, through use of Kenya Government Institutions. At conceptualisation, the project brought in experienced institutions such as MOI University, UoN and JKUAT with expertise in particular fields. There was therefore basic infrastructure plus people with relevant competencies to handle the project. Most partner institutions are universities and some activities are implemented through post graduate students therefore making it efficient in terms of remuneration. Some staff are institutional employees and are not necessarily full-time project staff, for example, at KWS, two staff are seconded to the project and are not full-time. However, it was also pointed out that the assigned project staff at partner institutions were pre-occupied with other institutional assignments, taking project work as secondary and not dedicating as much time as required, hence lagging behind in implementation. This is because they were not fulltime staff and hence focused efforts where they are appraised and expected to be on a fulltime basis.

## **F. Monitoring and Reporting**

***Monitoring and reporting was rated unsatisfactory.***

### *1. Monitoring Design and Budgeting*

The project had an M&E plan that provided guidance on the overall M&E processes from design to evaluation. The project had a results framework with outcome indicators and targets, but some

indicators did not match with the outcomes and some targets did not march with the indicators. Also, the results framework lacked baselines and indicators and project data was not disaggregated by sex and by vulnerable groups of people. Since there was no standalone project document, the MTR used the CEO ER and it was observed that the project design did not include project activities but stopped at output level. This made it difficult for the MTR to assess delivery at activity level. It is recommended that the project team reconstructs the log frame to cater for appropriate indicators and activities while maintaining the outcomes and outputs.

127. Mechanisms in place to monitor project achievements included inception meeting, half yearly technical reporting, quarterly financial reporting, periodic partner meetings/workshops, Project Implementation Review (PIR) reports, steering committee meetings as well as annual co-financing reporting. It was however reported that partner meetings were not regularly carried out to review progress. Although technical and financial reports were said to be submitted on time from KWS to UNEP Africa Office, they were not submitted in time to UNEP Ecosystems Division and were incomplete, hence most of them were not yet approved. At the time of the draft MTR report, only financial reports submitted by KWS of up to December 2016 had been approved and by the end of MTR, financial reports of up to September 2020 had been approved and uploaded in the system. However, all other financial reports like inventory of equipment, co-financing and the like had not been approved by the time of the MTR. UNEP Africa Office reported not having a budget line for monitoring progress on implementation. However, UNEP Ecosystem Division reported that UNEP Africa Office has never submitted any technical reports on their own to justify the need for this budget line.
128. The CEO ER and the M&E plan did not have a Theory of Change (ToC), a reconstructed Toc has been included. The M&E budget was embedded in the program budget, the itemised budget only included the mid-term and terminal evaluation budget. It was pointed out that the M&E budget was inadequate to facilitate routine monitoring of the project and other M&E functions. The project has an M&E focal person, at KWS, who is in charge of recording data, data quality control, processing, analysis and reporting.

## *2. Monitoring of Implementation*

129. Data flows from partners to KWS M&E focal person for aggregation and collation and is submitted to UNEP Africa Office. Monitoring activities performed included, preparation of some technical and financial reports, although this was reportedly not regular. The project also performed data cleaning, field monitoring and organised partner (technical) meetings and steering committee meetings.

## *3. Project Reporting*

### *Technical Reporting*

130. The KWS submitted some technical reports such as the Project Implementation Review (PIR) Reports and half yearly technical reports to UNEP Africa Office. It was however noted that a number of reports were missing, for instance semi-annual reports were produced once a year and some were not submitted in time. Currently, the Half yearly technical reporting template by UNEP does not include a provision for gender disaggregated data. UNEP should revise the reporting templates to capture gender disaggregated data. While the previous PIR reporting templates did not require gender reporting, the 2021 version does, but the actual reporting missed gender disaggregated data. This should be captured in subsequent reports. The UNEP Ecosystem Division reported that UNEP Africa Office has never submitted any technical reports of its own. Africa office is supposed to generate their own technical progress and financial reports and attach



those of partners as annexes. The MTR recommends that the UNEP Africa Office should submit their own reports to UNEP Ecosystem Division.

#### *Financial Reporting*

131. KWS reported to have submitted all reports since project inception but Ecosystem Division said they did not receive most of the reports and this is confirmed by the fact that the MTR could get all the reports as requested. At the time of the draft MTR report, only financial reports submitted by KWS of up to December 2016 had been approved and by the end of MTR, financial reports of up to September 2020 had been approved and uploaded in the system. Furthermore, all other financial reports like inventory of equipment, co-financing and budget revision and the like had not been approved by the time of the MTR. The UNEP Ecosystem Division reported that UNEP Africa Office has never submitted any financial reports of its own.
132. Most of the co-finance reports were not properly compiled; hence, not approved by UNEP Africa Office and Ecosystems Division. Out of the 9 co-finance partners, 2 (UNEP DELC and Verenium Corporation) did not submit any co-finance reports and the 7 who submitted, the reports were incomplete. It was noted that Verenium Corporation did not participate in the project hence did not submit the co-finance report. It was reported that UNEP did not provide adequate training in financial reporting. For instance, KWS received guidance in financial reporting late in 2021 yet the project started in 2014 and was supposed to end in 2019.

#### *4. Project Steering Committee Meetings*

The project has had 3 PSC meetings in 6.5 years since its inception in 2015, 2018 and 2020, which implies that no PSC meetings were not held in 2016 and 2017, yet the CEO ER required at least one meeting annually. According to the PSC minutes of 2015, it had been resolved that that PSC meetings should take place twice a year. All the PSC minutes provided to the MTR were not signed hence not approved. It is through regular PSC meetings that project implementation is effectively monitored, and all partners are well coordinated and updated/informed of project management issues. The project implementation gap caused by non-participation of DSMZ and Verenium Corporation would have been noticed much earlier if there was close monitoring of project implementation by the PSC and all responsible parties. The meetings discussed issues pertaining to progress of implementation, project budgets and work plan, bringing on board new partner (Dudutech) and the L. Bogoria Management Plan. The current GEF Task Manager had attended only one PSC meeting in 2020, which was reportedly the only meeting she had been invited to. On the side of UNEP Ecosystem Division, participation in PSC meetings was not regular since the TM attended only one PSC of August 2020, and no TM attended the previous 2 meetings, according to the minutes. The TM is a member of the PSC and should be attending all PSC meetings according to the CEO ER Annex G.

#### **Data Use**

133. Project performance data was used for decision making, for instance, in streamlining issuance of permits regarding the principle of ABS under Nagoya on access and utilization of genetic resources products, which informed policy level decisions. Evidence generated through the project was incorporated during Baringo County policy formulation. During partner meetings, each stakeholder would identify/assess gaps between the actual activities undertaken versus the expected results and implement remedial corrective measures. For instance, following the assessment of JKUAT and realising that there was a gap of an industrial partner, Dudutech was brought on board to fill that gap.

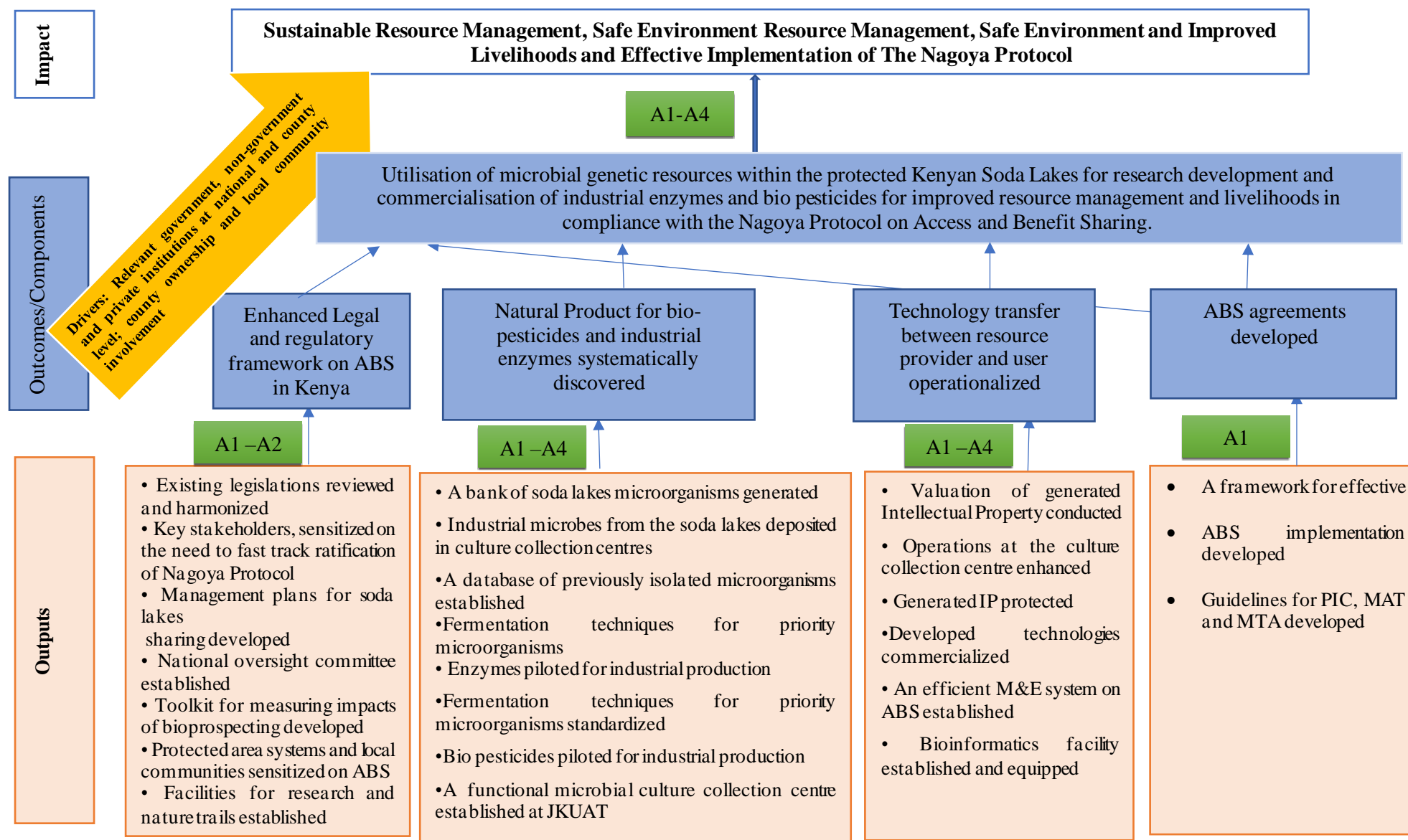
#### **Reconstructed Theory of Change**

134. The reconstructed ToC is graphically presented in Figure 1. The ToC holds that if the capacity of key stakeholders including community members is strengthened in ABS, and if there is an

enabling political and socio-economic environment (in form of political will from national and county governments, availability of skilled human resources and relevant infrastructure as well as greater involvement of local communities), there will be: i) Enhanced legal and regulatory framework on ABS in Kenya; ii) Discovery of natural products for bio-pesticides and industrial enzymes systematically; iii) Operationalization of technology transfer between resource providers and users and iv) Development of ABS agreements to build the capacity of the Kenyan authorities to engage with users of genetic resources. This will then lead to increased utilisation of microbial genetic resources within the protected Kenyan Soda Lakes for research development as well as commercialisation of industrial enzymes and bio pesticides. This will in turn lead to sustainable resource management, use of environmental and health friendly technologies and improved livelihoods in line with the Nagoya Protocol on ABS.

135. The logical flow of the results chain from outputs to outcomes, intermediate outcomes and impact is presented in Figure 1. The assumptions (AI-A5) and drivers underpinning the ToC are also presented.

Figure 1: Reconstructed Theory of Change



## Key Assumptions

A1: Enabling political and socio-economic environment

A2: Political will from national and county governments

A3: Availability of resources: human, material and financial resources

A4: Greater involvement of local communities

A5: Enhanced capacity of key stakeholders including community members

## G. Sustainability

*Sustainability was ranked satisfactory.*

### 1. Socio-political Sustainability

136. The project had strong political support in form of good will from national and county governments. The level of ownership, interest and commitment among government and other stakeholders was deemed adequate and likely to take the project achievements forward. For instance, the project was implemented by KWS, government universities and private sector which will foster the project continuity. In addition, the signed PIC and MAT will continue benefiting communities that produce the raw materials. Regarding capacity of stakeholders, the institutions such as universities and KIRDI have the capacity to continue doing research and collecting samples. At county level, the developed management plans will ensure continuity of project interventions, for instance, Baringo County Government already has a 10-year L. Bogoria Management Plan 2019-2029 in place.

137. However, local communities reported minimal engagement which was mainly during initial project stages and was perceived by local communities as passive engagement, probably due to the long-time taken without regular communication to communities, since the MTR learnt that communities were engaged in project inception meetings, PSC meetings as well as in developing PIC and L. Bogoria Management Plan. The quote below from leaders of the Endorois community attests to their perception of limited involvement.

*“Involvement of the Endorois Community is still minimal and passive; the community was not informed of what the project entailed while the Endorois Welfare Council Office (EWC) has no details concerning the project to date. The national government agents/parastatals, particularly KWS among others have been highhanded and keeping the details of the projects to themselves while keeping EWC/Endorois Community in the dark,”* **remarked a one community level respondent.**

### 2. Financial Sustainability

138. The following results require financial support for sustainability: i) the development/formulation of the lead microbial candidates into industrial products; ii) The maintenance of the culture collection centres; iii) collecting samples and commercialising products; iv) continued sensitization of the community members such as the Endorois Welfare Council (EWCs); v) lobbying for legislation for effective institutional framework by county governments and national government of Kenya and vi) ABS capacity development at national and county levels. Most respondents reported that the financial resources were not readily available, however, plans were in place to provide these resources through leveraging on other bilateral partners and commercialization of the outputs.

139. The project had no standalone exit strategy, the exit interventions were said to be imbedded in the National Bio-prospecting Strategy and some exit interventions were in built in respective partner institutions' systems. Lack of a comprehensive standalone exit strategy with

comprehensive interventions for continuity of project interventions is likely to hinder sustainability.

### 3. Institutional Sustainability

140. The project management arrangements were incorporated into the existing national and county level structures in order to create linkages and synergies for sustainability. In particular, the project implementation was linked to the country's national legislation, EMCA, 1999 and the subsidiary EMCA law 2006 legal notice number 160 which establish minimum standards for ABS. The government also ratified various multilateral environmental agreements for example the CBD, CITES, ITPGFA and others which also include elements of benefit sharing. The government further signed the Nagoya Protocol in 2012 and ratified it on 7<sup>th</sup> April 2014. The government aligns to the African Union Guidelines on ABS, which is also in line with Nagoya Protocol. The project contributed to the development of relevant institutional policies and guidelines such as the National IP Strategy and Guidelines which will enhance continuity of project interventions. The county ABS technical committees established are likely to enhance streamlining of ABS at county level in line with the Constitution of Kenya. The developed L. Bogoria management plan spells out a mutual working relationship between Endorois communities and Baringo County Government which will enhance sustainability of achievements. At the design stage, the project brought in experienced institutions such as MOI University, UoN and JKUAT with expertise in particular fields and appropriate infrastructure such as laboratories. The available infrastructure as well as people with relevant competencies are likely to ensure institutional sustainability of the project. KWS is an institution of government and the project activities are aligned to their mandate, the National Bio-Prospecting Strategy and Kenya Vision 2030 hence there is a high likelihood of continuation. The project also greatly enhanced the ABS capacity of KWS and that of partners which will continue to be applied. The one-stop shop for the permitting process established will continue to be utilised for monitoring by regulatory agencies such as NACOSTI regarding access and use of genetic resources.
141. The enhanced capacity of relevant individuals such as university staff and students, county governments, local communities in ABS, development of agreements (PIC, MAT and MTA) are likely to enhance continuity of interventions.

## 4.0 Factors Affecting Performance

*Factors affecting performance were ranked moderately satisfactory.*

### 1. Preparation Readiness

142. The necessary preparatory processes and procedures were in place. One of the essential project documents was prepared, the CEO ER, although the Project Document was missing hence there were no specific activities in design documents. An inception meeting was held, although an inception report or minutes of the inception meeting were not seen by the consultant. The costed work-plans were developed with appropriate detail. The project established a PSC to provide overall project oversight, although the PSC meetings were not regular (3 meetings in 6.5 years).
143. Measures were taken to implement proposal review committee recommendations or respond to contextual changes that took place between project approval, securing of funds and project mobilisation, resulting into approving of the CEO ER.



## 2. *Quality of Project Management and Supervision*

144. The project had a steering committee in place to provide overall oversight to the project. However, according to the CEO ER, the PSC was supposed to meet at least annually, but only 3 meetings were held over the 6.5-year period, which limited regular project monitoring as evidenced by the project being way behind schedule.
145. Project implementation agreements were in place, but with a bit of ambiguity. For example, UNEP Ecosystems Division signed an ICA with UNEP DELC starting on 22<sup>nd</sup> July 2014 to 30<sup>th</sup> April 2019. Then, UNEP Ecosystems Division also signed another ICA with UNEP Africa Office starting on 24<sup>th</sup> July 2017 and ending on 31<sup>st</sup> Dec 2018 with overlapping periods of validity of the ICA with DELC, but also without terminating or closing the ICA with UNEP DELC that was supposed to end on 30<sup>th</sup> April 2019. In addition, there is no documented justification why the project was moved from UNEP DELC to UNEP Africa Office. As a result, this caused confusion in management of the project both within UNEP and with the partners. KWS sees UNEP as one organisation representing the implementation agency. The MTR observed a mix up of roles between the Task Manager in Ecosystem Division and Project Manager at UNEP Africa Office. The PCA between KWS and UNEP Executive Director that was signed on 14<sup>th</sup> August 2014 to end in 2019, has since expired and was not renewed although it had been extended once to expire in September 2020. Apparently, there is no legal agreement between UNEP and KWS.
146. Although UNEP DELC was included in project design as an Executing Agency, according to the CEO ER, the actual role to be performed by DELC was not properly described. As a result, there seems to be no specific and substantial role for either UNEP DELC or UNEP Africa Office in the project execution, other than serving as a conduit for the flow of funds and/or reports. Therefore, the MTR observed that there was no need to have any ICA with either DELC or Africa Office. In fact, the role to be performed by either DELC or Africa Office in the ICA, is the same role being performed by KWS in the PCA. No wonder, according to KWS, they don't know the difference within UNEP divisions, and they see UNEP as one organisation performing the role of the implementation agency.
- Some partners pointed out the impression that UNEP does not seem to be interested in the project, with limited participation in terms of support supervision and monitoring of implementation.
147. KWS reported that project management worked well with first TM and DELC with continuous consultations and interaction but that there has not been direct interaction with the current TM till the last PSC meeting in August 2020. However, the current TM says she made several requests to UNEP Africa Office to allow her to interface directly with KWS and project partners but in vain. This was caused by the fact that the ICA between UNEP Ecosystems Division and UNEP Africa Office creates a layer that provides a legal barrier stopping the TM from interacting directly with KWS and project partners. The layering issue has resulted into substantial challenges for the project spilling over into reporting issues whereby KWS said they submitted reports to UNEP Africa Office but UNEP Ecosystems Division said that they had raised comments on the submitted reports through the UNEP Africa Office since they could not directly engage KWS but Africa Office did not relay the feedback to KWS. In fact, KWS raised concern of rarely receiving feedback on submitted reports. This was confirmed by the fact that at the time of MTR data collection and submission of the first MTR draft report, only financial reports of up to December 2016 had been approved and uploaded in the UNEP financial management system but at the time of the final MTR report, more financial reports of up to September 2020 had been approved and uploaded. This was further evidenced by the

reports of 2019 and 2020 being signed by KWS in May 2021. There is no doubt that without this MTR exercise, the financial reporting status would still be as of December 2016. It should be noted that there are other financial reports that are not yet approved by Ecosystem Division like the co-finance reports, inventory reports and the budget revision, yet the Ecosystems Division provided their comments to UNEP Africa Office to be relayed to KWS. The Ecosystem Division feels that if they had directly engaged KWS, all these reports would have been revised and cleared by now.

148. KWS pointed out that they needed training on project reporting, a skill that should be done by UNEP Ecosystems Division but could not do it due to that legal barrier. In addition, the MTR observed that this barrier hindered direct project monitoring and support supervision by Ecosystem Division. Lack of direct and regular interaction between UNEP Ecosystems Division and KWS could have partly contributed to weaknesses in the MoA that KWS signed with sub-partners which lacked the essential financial management components.
149. The working relationship between the UNEP Ecosystems Division and KWS was hindered by the structural arrangements whereby KWS was only bound to report to UNEP Africa Office which limited communication between KWS and UNEP Ecosystems Division, despite the fact that KWS acknowledges having worked smoothly with DELC and the then TM often providing oversight.
150. There was no systematic and proper handover process and information exchange between the outgoing and incoming staff at UNEP Ecosystems Division. For instance, the current TM did not get proper project handover and did not receive all the essential documents on the project such as the approved budgets, approved cash request forms and technical reports at the time of take over.
151. KWS signed MoA with partner institutions stipulating their roles and responsibilities. The management committees comprising of partner representatives was formed and it was reported that they would sit periodically to review progress of implementation. However, no minutes of these meetings were provided to the reviewer.
152. Although the MTR did not conduct staff capacity assessment for partners, the project management team reported that all project staff had adequate capacity aligned with project requirements. Project staff were appropriately located in different localities, and would move to support where needed. However, project staff at KWS and partners expressed limited knowledge on generating project financial and co-financing reports and other GEF requirements.

### *3. Stakeholder's Participation Cooperation*

153. Analysis of stakeholder groups was done before implementation began. There was collaboration between stakeholder groups through pooling resources. However, there was limited consultation and communication with stakeholder groups during the life of the project, particularly at community level. The communities reported having taken a long time without being updated on project progress although they acknowledged having been involved during initial project stages and PIC processes. Additionally, gender, social and economic impact assessments were not conducted to identify environmental impacts to stakeholders and did not have a gender mainstreaming strategy.

154. The project had direct linkages to poverty alleviation that aimed at improving household income, for instance, the management plans targeted to increase community benefits from 10% to 25%.

#### *4. Responsiveness to Human Rights and Gender Equity*

155. Gender specific considerations were not explicitly demonstrated in the context and results framework during project design and during project implementation. It was reported that gender aspects were considered under the bio-cultural protocol which focuses on communities and the role of women in conservation. The project design, implementation and monitoring did not explicitly take into consideration possible gender inequalities and human rights in access to, and the control over, natural resources. Additionally, project implementation did not specify the roles of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

#### *5. Country Ownership Driven-ness*

156. There was evidence that sector agencies such as KWS, KIRDI and NACOSTI and institutional partners such as JKUAT, Moi University and UoN, that were essential took a leadership role through provision of in-kind and cash co-financing contributions such as office space, salaries, stationery, utilities, communication and travel expenses. Baringo County government participated and contributed KES 1,500,000 towards the development of the L. Bogoria Management Plan.
157. The government of Kenya organised the 10-year anniversary for Nagoya Protocol global celebrations led by the project and communities around L. Bogoria, where the Model ABS management plan was launched with participation of varied stakeholders.
158. The Ministry of Agriculture came on board to mainstream ABS into the agriculture sector strategic plan while Ministry of Culture is promoting community platforms for sharing benefits from associated genetic resources. The Ministry of Tourism chairs the PSC, as evidence of country ownership, although the MTR was not able to interview the PSC chair.
159. In addition, the national Government of Kenya has spearheaded legislative and policy reviews to mainstream ABS in institutional policies and frameworks such as EMCA amendment 2015, WCMA 2013, Wildlife Policy 2020, Wildlife Strategy 2030 and the National Intellectual Property Strategy and Guidelines, including the National Guidelines on access of traditional knowledge associated with Genetic resources.

#### *6. Communication and Public Awareness*

160. The project had an outreach program where project communities were sensitised on ABS principles, although this was not regular and was more in the initial years of project implementation. Sensitization was further done through periodic partner meetings, although no meeting minutes were shared to evidence if these meetings really happened. Communication channels such as use of information, education and communication (IEC) materials, media documentaries, websites were used as knowledge dissemination channels to various stakeholders. However, stakeholders noted that the project generally had limited communication and public awareness efforts in driving change towards results beyond outputs. This was partly attributed to limited community outreaches due to inadequate resources allocated for outreaches.

## 5.0 Conclusions, Lessons Learnt and Recommendations

### 5.1 Conclusions

161. The overall rating of the project was unsatisfactory. Only 6 out of 23 (26%) outputs and 1 out of 9 outcomes (11%) were fully achieved, in a period of six and a half years for a project that was supposed to be implemented in four years. This indicates a high likelihood of not achieving most outputs even after the extension. The technical capacities of partners seem to be adequate to deliver the project results but they were slowed down by a number of internal and external factors.
162. The main factors affecting delivery of results were around adherence to contractual obligations such as timely implementation and reporting, low absorption rate (40.2%) in 6 and a half years. Other factors included poor adherence to contractual obligations such as timely reporting, poor accountability, poor project monitoring, poor supervision and huge communication gaps.
163. The MTR noted that internal factors significantly affected smooth and timely implementation of the project such as the non-participation of the main industrial partners, BSMZ and Verenium Corporation which had significant negative impact on the implementation of components 2 and 3, that are lagging behind. To a limited extent, external factors also contributed to the slow implementation rate such as delayed second disbursement of funds from UNEP due to system change, floods, insecurity, COVID -19, although they were for a limited timeframe and could not have been responsible for the project extending to 6.5 years and beyond.
164. Whereas reporting was done well under DELC, the reporting inefficiencies were noted after the project management was transferred to UNEP Africa Office. This necessitates reviewing the role of UNEP Africa Office in the project management structure to establish the value addition of that extra layer.
165. Project implementation is within budget, although delayed project completion and limited adherence to timelines make the project inefficient. In addition, since mainly administrative costs are the ones being reflected in the expenditure reports, it means the project will keep paying staff for no or little work done.
166. The project interventions are likely to be sustainable, since the project utilised existing national and county structures, and other government institutions including universities and regulatory authorities that will continue providing services. The project strengthened the capacity of county governments, partner institutions and local communities on ABS to carry on project interventions. Financial sustainability will be ensured through recognition by national government through support under the annual work plans where ABS is incorporated.
167. The reviewed and strengthened ABS related legal framework will ensure continuity of interventions and ABS benefits to communities, counties and the nation at large. These include the Wildlife Management Act 2013, EMCA 2015, County ABS laws and Biocultural Protocols for the Endorois community.

#### 5.1.1 Summary MTR Rating by Criteria

168. The overall project rating was unsatisfactory. The low performance was particularly under output delivery, financial management, communication between finance and project management staff, efficiency and reporting as summarised in Table 9.

Table 9 : Summary MTR Rating by Criteria

Criterion	Summary Assessment	Rating
<b>A. Strategic Relevance</b>	The project is aligned to the UNEP MTS, POW, UN Environment's policies and GEF/strategic priorities, although the CEO ER does not explicitly indicate a clear alignment. The project is relevant to national environmental priorities and addresses environmental needs of the communities through ABS and environmentally friendly enzymes and bio-pesticides.	<b>Satisfactory</b>
<b>B. Quality of Project Design</b>	The project document includes a comprehensive CEO ER request with a logical framework, work plan analysis of external context, and problem statement. However, the project document did not include the theory of change. The results framework lacked an elaborate monitoring plan. There was no standalone and comprehensive project exit strategy.	<b>Satisfactory</b>
<b>C. Nature of External Context</b>	The infrastructure such as internet, telephone and the road network were generally favourable, and the project had strong political support. Several factors occurred in the external context and negatively affected project implementation. These included: floods; 2017/18 post-election violence; and COVID-19 lockdown in 2020 and 2021, although they were for a limited timeframe and could not have been responsible for the project extending to 6.5 years and the project should have been completed by the time COVID-19 occurred.	<b>Moderately Favourable</b>
<b>D. Effectiveness</b>	The project has not yet achieved most of the outputs and outcomes with only 6 out of 23 (26%) outputs and 1 out of 9 outcomes (11%) fully achieved, in a period of 6.5 years for a project that was supposed to be implemented in 4 years. This indicates a high likelihood of not achieving most targets even after the no cost extension.	<b>Unsatisfactory</b>
<b>E. Financial Management</b>		
<i>1. Rate of spending</i>	GEF Funds expenditure at the time of the submitting the first MTR report as uploaded in the financial management system (Umoja) was USD 117,431, which was representing only 12.9% of the GEF project cost. However, an additional USD 206,631 was subsequently uploaded in Umoja on 23 <sup>rd</sup> July 2021, hence the total of USD 367,620 representing 40.2% of the GEF project grant (913,265), and 61% of received advance (USD 600,989). Most of the co-finance reports were not properly compiled and were therefore not approved by UNEP.	<b>Unsatisfactory</b>
<i>2. Quality and consistency of financial reporting</i>	An aggregated high-level budget by component that was submitted together with the project document but was not, broken by outcome and output. The project team was however not able to trace and provide the approved budget. The revised budget to support a no-cost extension of the project to June 2023 was not yet been approved. Finance reports prepared by the KWS were neither reviewed nor approved by UNEP and therefore not uploaded in the UNEP financial management system, the latest posting in the financial management systems was 31 <sup>st</sup> December 2016. No external audit was conducted.	<b>Highly Unsatisfactory</b>
<i>E2. Communication Between Finance and Project Management Staff</i>	There is a communication gap between the UNEP Ecosystem Division, Africa Office and KWS where each of the parties feels they are not getting adequate information from the other.	<b>Highly Unsatisfactory</b>
<b>F. Efficiency</b>	<p>The total approved cost of the project is USD 2,665,210, of which GEF contribution is USD 1,000,000 (38%) [913,265 as project grant and 86,735 as UNEP agency fee] and total co-finance of US 1,751,945, which represents 62% of the total cost of the project.</p> <p>GEF Funds expenditure at the time of the submitting the first MTR report as uploaded in the financial management system (Umoja) was USD 117,431, which was representing only 12.9% of the GEF project cost. However, an additional USD 206,631 was subsequently uploaded in Umoja on 23<sup>rd</sup> July 2021, hence the total of USD 367,620 representing 40.2% of the GEF project grant. Finance reports are still incomplete while co-finance and inventory reports submitted were inaccurate and incomplete.</p>	<b>Highly Unsatisfactory</b>



Criterion	Summary Assessment	Rating
	<p>The project is behind schedule, it has had 2 ‘no-cost extensions’, with the latest no-cost extension going up to June 2023 yet to be approved.</p> <p>There were no individual partner funding agreements signed, requests and transfer of funds per institution was guided by the signed collective MoA and implementation matrix. Due to the absence of individual signed partner agreements, it was not possible to determine what each partner is entitled to and whether there will be an additional disbursement in future.</p>	
<b>G. Monitoring and Reporting</b>	The project document includes a results framework with outcomes and respective indicators and targets. The MTR observed non-compliance to reporting timelines. KWS reported to have submitted all reports to UNEP Africa Office since 2017 but no reports had been approved and uploaded in the reporting system by the time of the submitting the first draft report. The reports were subsequently uploaded in the system on 23 <sup>rd</sup> July 2021. The PSC was scheduled to meet at least annually, but had only met three times in 6.5 years by MTR and all the minutes were not signed. The budgeted funds allocated to M&E were said to be inadequate.	<b>Unsatisfactory</b>
<b>H. Sustainability</b>	<p>The project utilised existing national and county structures that will continue providing services. The capacity of county governments, partner institutions and local communities was strengthened. Financial sustainability will be ensured through commercialisation of products. The ABS related legal framework will ensure continuity of interventions and ABS benefits to communities.</p> <p>However, local communities reported minimal engagement which was mainly during initial project stages and was perceived by local communities as passive engagement, probably due to the long-time taken without regular communication to communities, since the MTR learnt that communities were engaged in project inception meetings, PSC meetings as well as in developing PIC and L. Bogoria Management Plan</p>	<b>Satisfactory</b>
<b>I. Factors Affecting Performance</b>	All necessary preparatory processes and procedures were in place and a functional steering committee. However, the project was affected by several factors including delayed release of funds, delayed on boarding of partners, weak project monitoring and supervision, lengthy bureaucracies at public institutions, post-election violence, COVID-19 lockdown, limited communication and public awareness effort and weak gender specific considerations in the project design, results framework and implementation.	<b>Moderately Satisfactory</b>
<b>Overall Project Rating</b>	<b>Average of the ratings above</b>	<b>Unsatisfactory</b>

## 5.2 Lessons Learned

169. The lessons learned and the context in which they were learnt are presented in Table 10.

Table 10: Lessons Learned

No.	Lessons Learned	Context in which the Lesson was Learned or Can be Applied
1.	ABS do not happen as quickly as other projects so it may not fit into a short-term period. This is partly why the Endorois community were complaining that they did not see the benefits of the project to their community.	When similar projects are designed, it is important to clearly mark results expected in the short term and those to be realised in the longer term, so that key stakeholders are sensitised accordingly. The Nagoya protocol being a new concept, it required a lot of investment in a awareness creation at county and community levels.  Structured consultations and awareness creation between the national and county governments on ABS matters is essential, since communities often go to county governments for information which they may not have.
2.	Not all project partners require the same on-boarding time since interventions of some partners, such as industrial partners were dependant on other partners to first accomplish most of their work.	Since the private sector required enough samples before starting on commercial production, it may have been prudent to first have a product then contract the private sector partners. They had not started on most of their interventions by the time of this evaluation, and yet some of them had already received the funding.
3.	The lengthy chain for the flow of funds if not reviewed to ascertain the value addition of each layer, limits efficiency. Having multiple institutions governed by different policies leads to bureaucracies which slow down processes.	When the chain of funds flow is lengthy entailing different actors in different organisations, it is bound to delay project activity implementation. It also increases administrative costs and limits efficiency. Funding agencies can apply this lesson to minimise layers of funding and enhance efficiency.
4.	A project may be implemented within budget, but not efficient when it is implemented way beyond planned time.	When a project takes longer than planned, unanticipated changes happen to the different resources such as changes in personnel and finances. Delayed implementation negatively affects realisation of expected project benefits. As much as possible, the project management should provide support for adherence to project timelines for improved efficiency.
5.	Political will at national, county government and institutional levels fosters sustainability through resource allocation and integration into institutional work-plans.	Political will is key in creating an enabling environment, enhancing sustainability and scaling up adoption of technologies. The political buy-in is critical for all project implementers to foster not only involvement of government officials and key institutions in their interventions but spearheading project activities and incorporating them into their work-plans.
6.	Absence of dedicated staff for the project derails implementation because the staff are pre-occupied with other institutional assignments, taking project work as secondary.	In the context of co-financing where institutions contribute staff time with no dedicated fulltime project staff, implementation is derailed because the staff are pre-occupied with core institutional assignments. Faster implementation requires specific project staff seconded by implementing institutions.
7.	When implementing explorative projects, there are many unknown parameters such as the required technology and timeframe. Adaptability and flexibility should be inbuilt into the design.	Projects that are explorative in nature require flexibility at design level to accommodate justifiable adjustments in technology requirements and other areas that may not have been earlier envisaged. Continuous learning and adaptation should be factored in.
8.	Having different partners responsible for specific components of the project with no regular meetings to bring together partners and discuss progress creates a tendency to work in silos.	In order to foster teamwork among diversity, regular meetings are important to review progress and agree on action points.
9.	As much as the executing agency submitted a proposal and was awarded the contract, it should not be assumed that the executing agency fully understands specific donor requirements.	Different donors have different requirements, thus continuous support to the executing agency from the funding agency on the reporting requirements and templates is essential. Involvement of the right people responsible for compiling reports is key.

### 5.3 Recommendations

170. The following recommendations were arrived at based on findings of the MTR after analysis of the information provided, challenges, gaps and suggestions for improvements made by key stakeholders. The consultant further used knowledge of evaluating similar projects in the region to make actionable recommendations. The recommendations are towards improving project design, achievement of project results, improving compliance and reporting, financial management as well as management and communication as reflected in Table 11.

Table 11: Recommendations

No.	Finding/Challenge	Recommendations
<b>Project design</b>		
i.	The CEO ER did not include the theory of change and there is no project document hence no activities in the design document. The project indicators were not SMART, most of them were stated as results had had no measurable and quantifiable targets. Outputs were stated as activities, while indicators and targets were stated as results. The results framework did not include gender-tracking indicators and lacked an elaborate monitoring plan.	Review and finalise the theory of change reconstructed by the Consultant. Revise and refine the project results framework to refine output statements, indicators and targets. Develop a comprehensive costed M&E plan and conduct regular tracking of project progress. <b>Responsibility:</b> KWS, UNEP Africa Office and partners <b>Timeline:</b> December 2021
ii.	Lack of a standalone and comprehensive project exit strategy.	Develop a comprehensive project exit strategy. <b>Responsibility:</b> KWS, UNEP Africa Office and partners <b>Timeline:</b> December 2021
iii.	Limited deliberate efforts to integrate and address gender and human rights issues during the project design and implementation.	Develop a gender and human rights mainstreaming strategy for the project to strengthen gender and human rights issues integration into the project. <b>Responsibility:</b> KWS, UNEP Africa Office and partners <b>Timeline:</b> March 2022
<b>Project results</b>		
iv.	Limited achievement of project targets with only 6 out of 23 (26%) outputs and 1 out of 9 outcomes (11%) fully achieved. This indicates a high likelihood of not achieving most targets even after the no-cost extension.	KWS should develop an action plan to fast-track implementation of interventions and strengthen regular tracking of implementation. Institute quarterly progress review meetings for partners and UNEP.  UNEP Ecosystems Division and UNEP Africa Office should strengthen project management and support supervision to ensure adherence to contractual obligations.  UNEP Ecosystems Division and UNEP Africa Office should fast-track approval of the no-cost extension for KWS to facilitate completion of pending activities. <b>Timeline:</b> September 2021
v.	The assigned project staff for partner organisations were pre-occupied with core institutional assignments, taking project work as secondary and not dedicating as much time as required. This is because they were not fulltime staff and hence focused where they are appraised and expected to be on fulltime basis.	For faster implementation, there is need for partners to recruit project staff to specifically work on project activities.  The project team should revise the budget to cater for payment of project staff at partner institution level.  <b>Responsibility:</b> Partners <b>Timeline:</b> September 2021
vi.	Silo mentality whereby some institutions often worked independently, yet it is a collaborative project. Joint report reviews and review meetings were ad hoc, rather than planned and regular.	Conduct quarterly joint partner review meetings with all partners in which partners present their technical and financial progress reports, discuss challenges and agree on strategies to overcome them.  KWS should institute a collaborative transparency and information sharing mechanism and a amongst all partners.

No.	Finding/Challenge	Recommendations
		<b>Responsibility:</b> KWS, partners and relevant sectors <b>Timeline:</b> Immediate
	<b>Compliance and reporting</b>	
vii.	Lack of timely training on reporting formats. Incomplete and improperly compiled technical and financial reports with most of them not yet approved.  Some project partners did not understand how the co-finance works and how to produce related reports.	UNEP Ecosystems Division (TM and finance team) should continuously conduct training for KWS and partners' staff on reporting.  UNEP Ecosystems Division and UNEP Africa Office to provide regular support supervision and feedback on submitted reports by KWS. <b>Timeline:</b> Immediate
viii.	Lack of adherence to project reporting and implementation timelines. KWS reported having submitted reports to UNEP Africa Office, but UNEP Africa Office did not review and upload them in the reporting system on time.  In addition, UNEP Africa Office did not regularly provide feedback to KWS on submitted reports, as evidenced by KWS not aware that most reports were not approved. On the other hand, UNEP Ecosystems Division wanted to provide feedback directly to KWS but was hindered by the ICA legal barrier that prohibits direct contact with KWS.  UNEP Africa Office, as the executing agency, should be producing and submitting both technical and financial reports to the Ecosystem Division and not only forwarding KWS reports.	KWS should submit reports to UNEP Africa Office timely and UNEP Africa Office should in turn submit timely reports to UNEP Ecosystems Division for review and approval, as per all legal instruments.  There should be a review on the role of UNEP Africa Office in the project management chain to establish value addition of that layer and its contribution to delayed reporting to UNEP Ecosystems Division. If no value addition is determined, 3 options are recommended: i) Re-allocate the responsibility of project management to another person in UNEP Africa Office. ii) Terminate the current ICA between UNEP Ecosystems Division and UNEP Africa Office. iii) Sign a PCA between UNEP Ecosystems Division and KWS.  UNEP Africa Office, as the executing agency, should be produce and submit both its technical and financial reports to the UNEP Ecosystem Division.  <b>Responsibility:</b> UNEP Ecosystems Division and UNEP Africa Office <b>Timeline:</b> Immediate
ix.	Limited functionality of the PSC, as evidenced by irregular PSC meetings (3 meetings in 6.5 years instead of at least one per year, and agreed twice a year as per 2015 PSC meeting), and all PSC minutes were not signed.	KWS to finalise and obtain signatures for minutes of PSC meetings and share them with all members. The PSC Chair to institute quarterly PSC meetings since the project is way behind schedule in implementation, instead of meeting at least once a year as per CEO ER. KWS should revise the budget and to cater for more PSC meetings accordingly. <b>Timeline:</b> Immediate on-going
	<b>Financial management</b>	
x.	Very low financial absorption rate and reporting with only 40% of the disbursed GEF funds utilised in a period of 6.5 years and fully accounted to date.	The finance team at Africa Office should follow up with KWS to submit reports of the remaining receivables, review them and upload them in the financial management system.  <b>Timeline:</b> Immediate
xi.	Untimely, irregular and incomplete financial reporting. At the time of MTR data collection (May-June 2021), financial reporting amounted to 12.9% (USD 117,000), due to incomplete submission of financial reports. However, at the time of finalising the MTR report more financial reports had been uploaded in the system (Q4 2019, Q1 2020, Q3 2020), increasing the financial expenditure to 40% (USD 367,620) as of September 2020. However, the reports for October 2020 to June 2021 were still missing, hence the un-accounted	KWS should submit the remaining quarterly finance reports to UNEP Africa Office.  UNEP Africa Office to always review the reports submitted by KWS and ensure they are uploaded into the reporting system (UMOJA) on time to comply with reporting requirements.  KWS and UNEP should follow up the funds with sub-partners and agree on how best it should be urgently accounted for.  <b>Responsibility:</b> UNEP Africa Office and KWS

No.	Finding/Challenge	Recommendations
	for advance of USD 233,369. This was money advanced in 2017.	<b>Timeline: By 30 September 2021</b>
xii.	Only 3 partners (JKUAT, Moi University and KWS) submitted inventory reports worth USD 68,496 by MTR.	UNEP and KWS to find out if other partners that received funding procured equipment and if they did, remind them to submit inventory reports. <b>Timeline: By 30 September 2021</b>
xiii.	Most of the co-finance reports were not properly compiled hence not approved by Ecosystems Division by the time of MTR data collection and draft report compilation (May-June 2021). Ecosystems Division pointed out that the submitted reports indicate expenditures of previous years, which must also be submitted, in order for them to effectively review the reports. UNEP Africa Office had not submitted their co-finance reports.	KWS should follow up on all the required co-finance reports from the partners and submit them to UNEP Africa Office.  UNEP Africa Office should review all co-finance reports from KWS and submit them to Ecosystem Division.  The UNEP Africa Office to submit their co-finance reports to UNEP Ecosystems Division or agree with  UNEP Ecosystem Division to on how the promised co-financing pledged by UNEP DELC should be captured. <b>Timeline: By 30 September 2021</b>
xiv.	KWS has had 3 transfers of funds from UNEP amounting to USD 600,989 (USD 160,989 from UNEP DELC and USD 440,000 from UNEP Africa Office), however, funds transfer forms from DELC were not provided, although the funds transfer forms from UNEP Africa Office to KWS were provided to ascertain the transaction.	All cash transfers from UNEP to KWS should be supported by approved cash request and transfer forms.  UNEP Ecosystem Division should obtain all funds transfer forms to KWS for record purposes.  <b>Timeline: Immediate</b>
xv.	KWS did not sign individual funding agreements with partners but rather signed a collective Memorandum of Agreement (MoA) for 5 years (15/6/2017 to 15/6/2022) that did not stipulate how much each partner would receive from KWS for implementation of project activities and when the subsequent disbursement would be due.	KWS should sign distinct funding agreements with partners showing clear deliverables and funding amounts, including the amounts already received, and schedule for follow on disbursement.  The PSC should review the current collaborative agreement between KWS and partners and provide recommendations on how various partners should be managed under this project.  <b>Responsibility:</b> KWS, UNEP Africa Office and UNEP Ecosystems Division <b>Timeline: Immediate</b>
xvi.	Bureaucracies in release of funds particularly among universities, with several signatures required before release of funds and co-mingling of funds project funds with institutional funds  Different participating institutions with varied finance policies delayed release of funds.	UNEP should make a strong follow-up to trace how this co-mingled money could be properly accounted for.  Participating institutions should open separate project accounts to avoid co-mingling of funds and quicken the funds approval processes.  Speed up the flow of funds between UNEP, KWS and partners.  <b>Responsibility:</b> GEF, UNEP Ecosystems Division <b>Timeline:</b> December 2021 and future projects
xvii.	Some partners that had accounted for the funds received from KWS have not yet received the next cash advance since some partners had not yet accounted for their allocated funds. Overall, KWS has	KWS should develop protocols guiding how to receive financial reports from partners. KWS should collect both financial and technical progress reports from partners and submit them to UNEP as annexes to KWS reports.



No.	Finding/Challenge	Recommendations
	accounted for 61% (USD 367,620) of received advance (USD 600,989).	KWS should account for the remaining advance of USD 233,369 in order to request for more funds. <b>Timeline:</b> Immediate
	<b>Management and communication</b>	
xviii.	The agreement between KWS and UNEP has expired.	UNEP should sign a new agreement with KWS. <b>Timeline:</b> September 2021
xix.	At UNEP Ecosystems Division, the project has had 4 changes of TMs, yet 3 of those TMs are still UNEP staff, which brought about lack of continuity in terms of support to KWS and partners.	For future projects, UNEP should minimise changing TMs as much as possible.  <b>Responsibility:</b> UNEP Ecosystems Division <b>Timeline:</b> Future projects
xx.	The role to be performed by Africa Office in the ICA, is the same role to be performed by KWS in the PCA, making the ICA redundant. Instead, the project execution role is being performed by KWS. KWS is also not aware of the difference within UNEP divisions; they see UNEP as one organisation representing the implementation agency.	UNEP should assign the execution role to KWS directly.  UNEP should review the value addition of having Africa Office in the project implementation chain and terminate the ICA if there is not much value addition. <b>Timelines:</b> By December 2021
xxi.	Lack of proper handover system amidst staff changes at different arms of UNEP.	Institute a mechanism for systematic orientation of new staff and structured handover to facilitate smooth transition of staff. The Human Resource departments for various institutions should provide oversight for handover processes. <b>Responsibility:</b> UNEP <b>Timeline:</b> Ongoing
xxii.	Lack of regular communication and information exchange between UNEP Ecosystems Division, UNEP Africa Office and KWS.	Institute monthly open communication and feedback meetings at project management level for UNEP Ecosystems Division, UNEP Africa Office and KWS to assess the status of the project implementation. <b>Responsibility:</b> KWS, UNEP Africa Office, UNEP Ecosystems Division <b>Timeline:</b> Monthly for the 1 <sup>st</sup> 6 months, then quarterly throughout the remaining project lifetime.
	<b>Sustainability</b>	
xxiii.	Inadequate and non-regular engagement of local communities is likely to negatively affect sustainability.	Institute regular review and feedback meetings with Endorois community representatives and involve them in project monitoring activities to keep them informed on progress and document these meetings for evidence. Establish a community level project management structure and evidence it with documentation within the next 6 months. Provide training to the local communities for them to be aware of what activities to handle when the project ends <b>Responsibility:</b> KWS and Partners <b>Timeline:</b> Ongoing
xxiv.	Some project aspects require financial support for sustainability such as development of microbial candidates; maintenance of the culture collection centres; collecting samples, commercialising products and ABS capacity development at national and county levels.	The project team should develop an activity-based budget revision to cater for some of the interventions as mentioned in project design. Leverage funding from bilateral partners and existing government structures to scale up sustainability of interventions. Commercialise outputs to contribute to some of the critical interventions.  <b>Responsibility:</b> UNEP, KWS, partners and relevant sectors <b>Timeline:</b> Ongoing
	<b>Crosscutting issues</b>	

No.	Finding/Challenge	Recommendations
xxv.	Lack of a gender mainstreaming strategy.	<p>Develop a comprehensive gender mainstreaming strategy in line with ABS, to ensure equity participation and sharing of ABS benefits for both women and men.</p> <p><b>Responsibility:</b> KWS, partners and relevant sectors</p> <p><b>Timeline:</b> Immediate</p>

**Annex 1A: Output Indicator Performance Tracking Table**

<b>SODA LAKES MID TERM REVIEW</b> <b>Developing the microbial Biotechnology Industry from Kenya's Soda Lakes</b> <b>Project partners: UoN, JKUAT, KIRDI, Moi University, KWS and RIVATEX</b>						
<b>Outputs</b>	<b>Responsible Institution</b>	<b>Status (% completion)</b>	<b>Target</b>	<b>Deliverable</b>	<b>Achievement</b>	<b>Impact</b>
<b>Component 1: To enhance legal and regulatory framework on ABS in Kenya</b>						
1.1.1 Review of existing legislation that govern conservation and sustainable use of genetic resources in light of the implementation of the case study of this project	KWS	100%	Review of ABS legislations fully underway;	Existing legislations reviewed and harmonized for effective bioprospecting within the soda lakes;	<p>One stakeholder workshop undertaken which reviewed gaps in existing legislations on ABS</p> <p>This process informed various legislative reviews including EMCA amendment 2015, WCMA 2013 (now being reviewed), Wildlife policy 2020, Wildlife Strategy 2030</p> <p>Also informs on-going Kenya's position on CoP meetings since 2014</p>	<p>This has informed the on-going national process of ABS legislation</p> <p>The gap analysis informed the current GIZ ABS Initiative and the GEF funded UNDP projects in Kenya on ABS. The UNDP is focusing majorly on ABS legislative framework in the country while the GIZ is on awareness and capacity building on Nagoya Protocol</p> <p>Increased awareness both at national, county and community levels</p> <p>Enhanced compliance to the county's obligations under the CBD and Nagoya Protocol</p> <p>Increased compliance on access procedures (Increased Access permits)</p>
1.1.2 Undertake consultative process through workshops between the county, National government and policy makers on reviewed ABS legislation in light of this project to facilitate ratification and	KWS	100%	PIC, MTA and MAT under construction;	Key stakeholders, policy makers, members of parliament sensitized on the need to fast track ratification of Nagoya Protocol;	A high-level meeting which brought together the county and National governments, members of parliament and senate, policy makers, academia, regulators, resource providers, local communities and private sector was held to create awareness on the country's obligations and	<p>Recommendations of this high-level meeting have been adopted at various levels including:</p> <p>i. The on-going national process of ABS law making under the UNDP project, various regulatory reviews under Wildlife Act 2013, EMCA 2015, County ABS laws and Biocultural Protocols (Endorois);</p>

implementation of the Nagoya Protocol					responsibilities under Nagoya Protocol. This was successfully completed	<ul style="list-style-type: none"> <li>ii. Development of the national integrated online ABS permitting process by GIZ ABS Initiative;</li> <li>iii. Model system of granting PIC and MAT between National, County and Community established and now various ABS agreements have been concluded</li> </ul>
1.1.3 Identify and map out soda lakes areas in the country, select two priority areas and through stake holder process develop management plans which include aspects of benefit sharing	KWS	60%	Development of joint management plans that integrate benefit sharing schemes	Management plans in selected soda lakes inclusive of local communities and aspects of benefit sharing developed;	<p>Kenya's soda lakes mapped and prioritized for ABS model management plan. One management plan for Lake Bogoria was developed</p> <p>The model ABS based Management plan has been completed and launched during the 10<sup>th</sup> Nagoya Protocol Anniversary celebrations</p>	<ul style="list-style-type: none"> <li>i. The model was recommended by the UNHCR as the best to resolve the age-old conflict between the community and the county over resource ownership and benefit sharing for lake Bogoria;</li> <li>ii. The national government led by the Attorney Generals Task force recommended the process as potential solution to resolve the Gambian court ruling for the Endorois community and resource ownership;</li> <li>iii. There is a mutual working relationship between Endorois communities and the county government through the process;</li> <li>iv. Because of the goodwill of this, we had financial commitments from the county government and the GIZ ABS Initiative (community component through BCP) that supported the development of the management plan;</li> <li>v. These ABS model process formed a case study for the African Anglophone workshop under the GIZ ABS Initiative prior to CoP MoP2;</li> <li>vi. This process is informing development of ABS based</li> </ul>

						<p>management plans under the wildlife Act sec. 72-76;</p> <p>vii. Under the management plan, the community benefits are envisaged to increase from 10% to 25% and communities are more involved in decision making of the Reserves' management processes;</p> <p>viii. The model management plan is being used as a best practise for ABS in park management. Several counties and other countries have requested to bench mark with the County government of Baringo for the ABS based management plan.</p>
1.2.1 Identify key stake holders and establish a National bioprospecting steering committee with clear terms of reference	KWS	80%  Wildlife act is being revised; this will affect the committee membership	Clear structures for bioprospecting and benefit sharing for protected area systems and local communities linking between users and provider both at National and county level in process	National oversight committee comprised of key stakeholders including local communities established to promote bioprospecting activities within protected area system	This process is informed by various ongoing national legislative reviews. Including development of substantive ABS laws. Recommendations been put in place to adopt the current project Steering committee as the National Bioprospecting steering committee as per 2018 PSC meeting. Stakeholder consultations have been carried out and review of the existing bioprospecting strategy recommended as a national valorisation document;	<p>i. Bioprospecting governance is a key component of the Wildlife Policy 2020 and the Wildlife Strategy 2030;</p> <p>ii. Bioprospecting recommended as a key component on the ongoing taskforce review on wildlife utilization including institutional arrangement;</p> <p>iii. Under the project, various County ABS technical committees have been established for the purpose of streamlining ABS at the county level in line with the National government and Kenya Constitution. This is part of the on-going review process under the WCMA 2013 streamlining Bioprospecting and share of benefits from Wildlife resources i.e., proposed establishment of the Wildlife Conservation Fund;</p>
1.2.2 Together with the national bioprospecting steering committee through a stake holder	KWS	80%  Being finalised		Toolkit for measuring impacts of bioprospecting in the country developed;	Key elements of the tool kit have been developed which include the PIC, MAT, MTA and the process flow chart for permitting process	<p>Contribution to enhanced ABS reporting as per Nagoya Protocol requirements</p> <p>Great impact of the outreach program resulting in enhanced compliance and</p>



consultative process develop and launch a bioprospecting tool kit for monitoring impact of bioprospecting projects on conservation and community livelihoods;					in the country. Stakeholder consultation process is ongoing to review and finalize the toolkit A needs assessment communiqué as per Nagoya Protocol Art. 17 for checkpoints is on going	enforcement i.e., increased number of ABS permits issued  Enhanced awareness on the country's permitting processes
1.2.3 Develop outreach material and disseminate to protected area management through education awareness;	KWS	100%	Awareness creation through media and documentaries	Protected area systems sensitized on ABS requirements and operations;	Posters and outreach materials developed  Awareness creation through media and documentaries  Activity successfully completed	Showcasing of Kenya's genetic wealth specifically soda lakes has had greater impact at major events such as the 5 <sup>th</sup> Devolution conference, 25 <sup>th</sup> CBD celebrations and National Trade fairs. It has been mainstreamed within KWS as part of education and awareness on wildlife utilization; This model of showcasing the countries rich genetic wealth has been recommended and adopted by the Ministry of tourism and Wildlife to showcase in international meetings such as CoPs; The soda lakes project has been showcased during Nagoya CoP MoP 1, 2 and 3. Also, widely showcased by project partners;
1.2.4 Map out, procure and construct infrastructure facilities within the soda lakes to enhance research and tourism (e.g., Nature trail in Lakes Bogoria, Elementaita and Simbi Nyaima) for KWS and adjacent communities;	KWS	80%	Development of joint management plans that integrate benefit sharing schemes	Facilities for research and nature trails to promote conservation and tourism within the selected soda lakes established;	Through consultation, this activity is being implemented alongside the management plan in Lake Bogoria.  The community together with the project partners (KWS and County) have mapped out the nature trail in Lake Bogoria	The trail system will contribute to alternative tourism products in Lake Bogoria National Reserve enhancing community livelihood  Nature trail is linked to the Endorois cultural centre where communities participate as tour guides contributing to ownership and source of employment
<b>Component 2: Systematic discovery of natural products for bio-pesticides and industrial enzymes</b>						

2.1.1 Undertake field sampling from the soda lakes at different seasons, isolation of microorganisms and screening of the microbes for cellulase, protease and Phytase activities for agro-processing, starch and fuel, textile, food and beverage and protein hydrolysis and deposit pure strains in culture collection centres at JKUAT, DSMZ and Verenum Corporation;	JKUAT and UoN	95%	Two microorganisms producing bioactive metabolites and enzymes identified;  Culture collection centre under construction at JKUAT	A bank of soda lakes microorganisms with known potential application generated;	Field sampling at different seasons and lakes have been undertaken  171 soda lakes microorganisms have been isolated, identified, screened and potential products for biopesticides and industrial enzymes have been identified;  Model standard Operating Procedures for project partnerships have been developed  Model Field and Laboratory notebooks to guide in Intellectual Property management have been developed  <b>However, the MTR could not tell which enzymes were characterised and which product.</b>	This model set precedence for collaborative ventures on biodiscovery along the value chain from field to the product  Model for IP and benefit sharing  Sharing of methodologies and innovative approaches on biodiscovery amongst institutions and industrial partners  Isolated and characterized microbes contribute to soda lakes biodiversity valorisation and forms the platform for bioprospecting for various industrial leads. These isolates are being used by various students at various levels
2.1.2 Select, characterize and deposit in the culture collection centres in JKUAT and DSMZ potential isolates producing bioactive secondary metabolites as bio pesticides for seed and seedling treatment;	JKUAT and KIRDI	75% Biodiscovery takes time. Two isolates are in place, but still on going	At least 2 isolates characterized and deposited	Industrial microbes from the soda lakes identified and deposited in designated culture collection centres in line with Nagoya Protocol;	Potential microbial bio pesticides identified and deposited in JKUAT	Home grown solutions for microbial ex-situ conservation and local capacities to use indigenous resources in developing innovative products in response to various problems

2.1.3. Status of microbial strains in culture collection centres at JKUAT and other partner institutions established and over 200 microbial isolates screened for cellulose degradation and enzymes for detergent and cotton processing	KWS, JKUAT and UoN	100%	Database of previous collections shared with providers and stored in JKUAT	A database of previously isolated microorganisms from the soda lakes established showing the players, source and storage;	<p>Partner institutions have provided inventories of previous collections within their custody</p> <p>A national workshop held bringing together key ex situ institutions and discussions on streamlining existing collections in line with Nagoya Protocol</p> <p>However, the MTR realised that the indicator does not match the activity.</p>	<p>Enhanced awareness on in situ and ex situ conservation</p> <p>Alignment of national ex situ collections with Nagoya Protocol</p> <p>Initiated national dialogue on ex-situ collection systems and governance in-line with Nagoya Protocol</p>
2.2.1 Undertake fermentation optimization studies of identified candidates for large scale production of cellulases, proteases and phytases for industrial production;	UoN, KIRDI and Rivatex	25% delayed funds, late start. You isolate, prioritise, develop technology. Delayed by lockdown too	Pilot production and up scaling of at least 1 potential Microbial candidates and enzyme production underway	Fermentation techniques for priority microorganisms with industrial potential standardized;	<p>Fermentation techniques in process</p> <p>Meetings between Rivatex, UoN and KIRDI being undertaken to perfect the process for the market place</p>	A coordinated process at national level for effective results output based on strength and existing resources
2.2.2 Undertake formulation and evaluation of the produced enzymes for application in starch and fuel, textile, food and beverage industries together with the private companies (KIRDI, Rivatex, University of Nairobi Science and Technology Park, the JKUAT Enterprise Ltd and	KIRDI, UoN and Rivatex	10% Informed by the above		Enzymes derived from soda lakes microorganisms piloted for industrial production;	Meetings between Rivatex, UoN and KIRDI being undertaken to perfect the process for the market place	

Verenium Corporation);						
2.3.1 Optimize fermentation conditions for large scale production of bio pesticides for industrial production;	JKUAT, KIRDI and Dudutech	50%	Two microbial biopesticides under pilot production by JKUATES, KIRDI and Dudutech	Fermentation techniques for priority microorganisms of biopesticide industrial potential standardized;	Five microorganisms are under greenhouse trials for application as biopesticides. JKUAT has already identified potential soda lakes microorganisms for use as biopesticides in control of the broad-spectrum plant pathogenic fungi, <i>Fusarium solani</i> and <i>Rhizoctonia solani</i>	A major success story on the bio discovery component of the soda lakes project.
2.3.2 Formulate and evaluate produced biopesticides for application in the seed and horticulture industry together with the private companies (University of Nairobi Science and Technology Park, the JKUAT Enterprise Ltd and KIRDI);	JKUAT, KIRDI and Dudutech	25%	Two bio- pesticide formulations based on isolated compounds under trials and up-scaling	Biopesticides derived from soda lakes microorganisms piloted for industrial production;	Formulation at initial stages	Home grown solutions for development of industrial products
2.4.1 Upgrade the Culture Collection Centre at Jomo Kenyatta University of Agriculture and Technology (JKUAT) to a national culture collection to support discovery of potential	JKUAT, KWS, NEMA and NACOSTI	60%	Personnel for the living library identified and capacities build by DSMZ.  Infrastructure for the living library at JKUAT improved and equipped.	A functional microbial culture collection centre established at JKUAT;	Pilot culture collection centre at JKUAT equipped by the soda lakes funds and operational	The culture collection centre is acting as a reference for microbial repository in the country  Process of linking it to national patenting office on-going  Capacities for staff enhanced and model system for depository in line with the Nagoya Protocol established

Soda Lakes microbial products;						
<b>Component 3: Technology Transfer between resource provider and user operationalized</b>						
3.1.1 Undertake an economic evaluation of the developed bioprocess technologies for efficient secondary metabolite production from the soda lake microorganisms to establish market potential;	Moi University, Rivatex, KIRDI and JKUAT	20% Informed by the discovery	Negotiations advanced or at least underway on transfer of a technology	Valuation of generated Intellectual Property for the market place;	Technologies are under development	A coordinated process on IP development from sample collection to product development in collaborative research activities
3.1.2 Train personnel and improve culture collection facilities at JKUAT by DSMZ;	JKUAT, KWS, NEMA and NACOSTI	100%	Personnel for the living library identified and capacities build by DSMZ.	Operations at the culture collection centre at JKUAT enhanced;	Training of potential curators for the culture collection undertaken by local experts. DSMZ did not participate in the project.  <b>However, the MTR could not establish who did the training and whether it was of the anticipated quality since DSMZ and Verenium did not participate and they were the ones to provide the training.</b>	Local capacities for soda lakes microbial curation and storage enhanced
3.1.3 Assess Intellectual Property Rights (IPR) generated from the project and together with partners seek IPR protection where possible with	All Parties, led by Moi University	70%	Documentation of baseline IP audit and generated IP identified;	Generated IP protected with relevant IP offices;	Baseline IP audit for the project undertaken	This has served as a model for all ABS projects in the country are required to undertake IP audit to inform benefit sharing decision processes



Kenya Industrial Property Institute and Patent Corporation Treaty;						
3.1.4 Evaluate and license the developed technologies through appropriate agreements in compliance with the Nagoya Protocol;	All Parties, led by Moi University	5% Informed by previous activities	At least one technology and one product identified	Developed technologies commercialized through technology transfer agreements;	Products and technologies being rolled out	
3.2.1 Identify, install and train personnel on appropriate software system for monitoring biological specimen collection and movement from Kenya;	KWS	70%	A system of scientific collections monitoring initiated;  At least 3 conservation area managers trained	An efficient monitoring and evaluation system on accessed biological resources established;	Education and awareness for protected area system at various levels is continuously being undertaken  County ABS system being established linking up the national, county and community  A database on scientific collections established  An integrated protected area system on collection of biological resources to link up with the national online ABS permitting process being developed	The system has been adopted at the national level for monitoring and reporting on scientific permits and collections of biological resources.  Protected area system more equipped on aspects of Nagoya Protocol on access and utilization of genetic resources for example the case of the Czech zoo and Kenya on the Northern White Rhinos that are getting extinct  Scientific collections under protected area system have been integrated in the national online ABS digital permitting  The model monitoring system is being used by other countries for tracking utilization of accessed GR
3.2.2 Map out, procure, construct and equip a bioinformatics centre at KWS;	KWS	60%	Outlines of a bioinformatics system for bioprospecting in protected areas	Bioinformatics facility established and equipped for improved bioprospecting activities within protected area systems in the country;	Identification of appropriate server to host the bioinformatics system identified internally and business requirements document being developed by the IT experts	This will enhance R&D, enhance benefits and increase compliance and enforcement

<b>4. ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources</b>						
4.1.1. Through legal consultations, develop by way of consultation an ABS agreement between provider (KWS and Soda lakes community's county government), local Kenyan institutions (KIRDI, Moi University, University of Nairobi Science and Technology Park Ltd and the JKUAT Enterprise Ltd), DSMZ and the industrial partner, Verenium Corporation) in line with Nagoya Protocol on Mutually Agreed Terms;	KWS	100%	Partnership agreements in place and framework for benefit sharing being actively negotiated	A framework for effective implementation of the soda lakes ABS project developed among partners in line with Nagoya Protocol;	Model ABS agreement in place  ABS permits already obtained	This is serving as a model for Nagoya PIC, MAT and MTA processing in the country. Most projects are using this format to develop these documents  Has provided a model on grant of permits for biological resource utilization in the country  Model ABS agreement and processes being used as a guide by Bahamas and other African countries
4.1.2 Develop key elements of ABS i.e., Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and Material Transfer Agreement (MTA) through stake holder consultation and operationalize within the project.	KWS	80%	Draft guidelines for developing PIC and MAT between users and providers	Guidelines for PIC, MAT and MTA developed to guide bioprospecting activities within the soda lakes;	Draft guidelines in place  Expert stakeholder meeting planned to finalize and approve the drafts	The draft guidelines are being used by resource users for access and utilization of biological resources under various approvals, permits and licences

## Annex 1B: Outcome Indicator Tracking Table

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 1.1:</b> Policy, legal and regulatory frameworks on ABS upgraded in compliance with the provisions of the Nagoya Protocol	Legal clarity on ABS resulting in increased bioprospecting activities on Kenyan genetic resources	ABS laws reviewed	Review of ABS legislation fully underway PIC, MAT and MTA under development	Reviewed ABS laws	<b>The National ABS laws is not yet finalised.</b>	80%
		Stakeholder awareness and development of ABS instruments in progress  Mapping of Kenyan soda lakes	Development of joint management plans that integrate benefit-sharing schemes	PIC, MTA and MAT;  Joint management plans that integrate sustainable benefit-sharing schemes for selected soda lakes	Supported review for existing ABS legislations (The EMCA amendment 2015, WCMA 2013 (now being reviewed), Wildlife policy 2020, Wildlife Strategy 2030)  PIC, and MAT finalized and signed.  <b>L. Bogoria Joint management plan developed (1 out of 2)</b>	60%

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 1.2:</b> ABS institutionalized in protected areas as a tool for enhanced conservation and livelihood improvement	Enhanced benefits and conservation of protected area systems resulting from ABS based projects;	No clear structures for local communities to engage on ABS activities	Clear structures for bioprospecting and benefit sharing for protected area systems and local communities linking between users and provider both at National and county level in process	<p>Protected system to be focal points for ABS in the country;</p> <p>Increased Bioprospecting activities within protected area systems;</p> <p>Trails around two soda lakes;</p> <p>Benefits from signed ABS agreements in support of conservation in place</p>	<p>Administrative procedures from the national government to county government and local communities within the project area established</p> <p>Enhanced compliance and increased IRCC on ABS-CH</p> <p>Nature trail in Lake Bogoria mapped for integration in the management plan</p> <p>Increased resource mobilization as shown from various ABS based research projects</p> <p><b>Benefits from signed ABS agreements in support of conservation have not yet been realised.</b></p>	80%

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 2.1:</b> At least 1 potential microbial isolate characterized and deposited at the culture collection centre at Jomo Kenyatta University of Agriculture and Technology (JKUAT), the German Collection of Microorganisms and Cell Cultures (Deutsche Sammlung von Mikroorganismen und Zellkulturen – DSMZ) and Verenum Corporation; <i>(describe)</i>	Number of potentials micro-organisms isolated and screened	Two meetings and one training	Develop microbial collection mechanisms	Four microorganisms producing bioactive metabolites and enzymes;	Over 171 soda lakes microorganisms screened for potential biopesticides and industrial enzymes	80%
		Meeting to assess culture collections in the country	Culture collection centre under construction at JKUAT	Culture collection centre at JKUAT in place;	Establishment, procurement of equipment, consumables, capacity building of personnel in place.  <i>However, the MTR was not able to establish whether the microbial isolates were characterized and which ones.</i>	100%



Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 2.2:</b> At least 1 enzyme product developed for agro-processing, starch and fuel, textile, food and beverage industries by the participating Kenyan institutions and the private companies (KIRDI, University of Nairobi Science and Technology Park, Rivatex East Africa, and the JKUAT Enterprise Ltd) and Verenium Corporation as the main industrial partner;	Number of microorganisms screened for enzyme production;  Number of bioactive enzymes characterized;	Some potential microorganisms already screened and in partner institutions	Pilot production and up scaling of at least potential Microbial candidates and enzyme production underway	One enzyme product;	Several soda lakes microorganisms screened for industrial enzyme production  At least 4 different enzymes for use in textile industry characterized by JKUAT.  <b>The enzyme product not yet developed.</b>	80%
<b>Outcome 2.3:</b> At least 1 biopesticide for enhanced seed and seedling treatment developed by the participating Kenyan institutions and the private companies (KIRDI, University of Nairobi Science and Technology Park and the JKUAT Enterprise Ltd);	Number of microorganisms screened for secondary metabolite production;  Number of bioactive compounds characterized;	Some potential microorganisms already screened and in partner institutions	Two microbial biopesticides under pilot production by JKUATES and KIRDI enterprises;  Two bio-pesticide formulations based on isolated compounds under trials and up-scaling	One pure compound;  One microorganism with potential industrial application;	171 soda lakes microorganisms screened for biopesticide application. <b>However, microbial biopesticides not yet produced</b>  5 potential microorganisms for use as biopesticides under green-house trials	70%  80%

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 2.4:</b> A living library of Kenyan Soda lakes microorganisms established at JKUAT;	Number of microorganisms isolated;	Database of microbial collections in JKUAT pilot collection available	Personnel for the living library identified and capacities built by DSMZ	A database of Kenya's soda lake microorganisms within JKUAT culture collection	<p>Training of potential curators, technicians and students on collection and preservation methods undertaken</p> <p>Database of microbial collections at JKUAT available</p> <p>Personnel for culture collection recruited and trained.</p> <p><b>Although the indicator was achieved, the outputs for this outcome have not been achieved, which implies poor logical link between outputs and outcomes or wrong indicators.</b></p>	100%
	Number of microorganisms identified and deposited at JKUAT culture collection centre	List and profiles of microorganisms already deposited at JKUAT culture collection	Infrastructure for the living library at JKUAT improved and equipped	Living library established	<p>50 new cultures from the project identified and deposited at the culture collection centre at JKUAT. Work is in progress.</p> <p><b>Although the indicator was achieved, the outputs for this outcome have not been achieved, which implies poor logical link between outputs and outcomes or wrong indicators.</b></p>	100%

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 3.1:</b> Technology transferred (Including equipment, knowhow and training) from DSMZ and Verenium Corporation to local research institutions and protected area systems management	Number of technologies Transferred	Training curriculum developed and trainees identified  Assessment of potential intellectual property from the soda lakes project assets undertaken	Negotiations advanced or at least underway on transfer of technology	At least one industrial technology transferred to local institutions	Baseline intellectual property assets established  One industrial partner on Biopesticide identified and researchers working on biopesticides isolate for incubation  <b>Technologies not yet transferred</b>	50%
<b>Outcome 3.2:</b> An effective bioinformatics system in Kenya at KWS for Soda lakes microbial discovery to act as a system for monitoring and evaluation established;	A functional bioinformatics for protected area system in place;	List of researchers and materials collected	Outlines of a bioinformatics system for bioprospecting in protected areas	A system of monitoring accessed material from protected area for Bioprospecting;	Capacity of protected area system being enhanced;  Integration of national permitting and scientific collection with protected area system ongoing  Protected area system for permitting and scientific collection is being integrated with the national system	80%

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target or Milestone <sup>2</sup>	End-of-project target	Achievement	Percentage achievement
<b>Outcome 4.1</b> ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources	Equitable benefit sharing on use of indigenous genetic resources arising from effective partnerships between users and providers	No model ABS agreement  Fragmented system on permits for access to genetic resources  No clear system for local community engagement in ABS activities	Partnership agreements in place and framework for benefit sharing being actively negotiated	Collaborative framework between the provider and user of soda lakes' genetic resources in place	ABS agreements between provider and local users signed  Dudutech industrial partnership concluded  Capacity building and awareness creation on PIC, MAT, MTA in progress  Guidelines on PIC and MAT being finalized  <b>Equitable benefit sharing on use of indigenous genetic resource not yet realised.</b>	80%

## Annex 2: List of Individuals Consulted during the MTR Process

No.	Institution	Name (s)	Designation
1.	UN Environment GEF	Johan Robinson	Unit Head/ UN Portfolio Coordinator/ Operational Focal Point for Kenya
2.	UNEP Ecosystems Division	Jane Nimpamya	Task Manager (TM)
3.	UNEP Ecosystems Division	George Saddimbah	Fund Management Officer (FMO)
4.	UNEP Ecosystems Division	Michael Atogoh	Finance Assistant
5.	UNEP ROA	Levis Kavagi	Project Manager at UNEP ROA
6.	UNEP ROA	Frank Turyatunga	Deputy Director and head of Programmes for ROA
7.	UNEP Division of Environmental Laws and Conventions (DELC)	Emmanuel K. Adonsou (Ph.D)	Programme Officer, Access and Benefit Sharing (ABS) Multilateral Environmental Agreements Support and Cooperation Unit Law Division
8.	UNEP Division of Environmental Laws and Conventions (DELC)	Harpreet Panesar	Finance Officer
9.	UNEP ROA	Juliet Biao	Regional Director, UNEP ROA
10.	UNEP ROA	Stephen Ndeti	Finance Officer
11.	UNEP ROA	Wycliffe Ogwen	Finance Officer
12.	Kenya Wildlife Service (KWS)	Kabaka Watai	Project Coordinator at KWS
13.	Kenya Wildlife Service (KWS)	Priscillar Mutungi	Project manager at KWS
14.	National Environment Management Authority (NEMA)	Joyce Imende	ABS Desk officer
15.	Jomo Kenyatta University of Agriculture and Technology	Prof. Justus Onguso	Director, IBR
16.	Kenya Industrial Research and Development Institute (KIRDI)	Dr. Martha Induli	Deputy Director
17.	Moi University	Antony Mbayaki	Technology Transfer Officer
18.	Rift Valley Textiles -RIVATEX	Hosea Too	Chief Chemist
19.	National Commission of Science and Technology (NACOST)	Dr. Edwardina Ndhine	Principal Analyst /Ag. Head of Earth and Space Science
20.	Local communities	Eric K Kimalit Richard Kiming'oror	Chair, Endorois community CEO Endorois community
21.	Intergovernmental Relations technical Committee (IGRTC)	Caroline Lentupuru	Director/PSC Member
22.	Kenya Wildlife Service	Solomon Kyalo	Head, Multilateral Environmental Agreements/alternate PSC Member to Mr. Patrick Omondi.
23.	Dudutech	Dr Vitalis Wekesa	Production Manager



### Annex 3: Project Results Framework

	Indicator	Targets Mid-point	Target End of projects	Source of verification	Assumptions
<b>Component 1: To enhanced legal and regulatory framework on ABS in Kenya</b>					
<b>Outcome 1.1:</b> Policy, legal and regulatory frameworks on ABS upgraded in compliance with the provisions of the Nagoya Protocol;	Legal clarity on ABS resulting in increased bioprospecting activities on the Kenyan genetic resources	Review of ABS legislations fully underway.  PIC, MAT and MAT under construction  Development of joint management plans that integrate benefit sharing schemes	Reviewed ABS laws,  PIC, MTA and MAT;  Joint management plans that integrate sustainable benefit sharing schemes for selected soda lakes;	Minutes of meeting; Copies of reviewed MTA and access permits; Management plans;	The government will ratify the Nagoya protocol within the Project's period;
<b>Outcome 1.2:</b> ABS institutionalized in protected areas as a tool for enhanced conservation and livelihood improvement;	Enhanced benefits and conservation of protected area systems resulting from ABS based projects;	Clear structures for bioprospecting and benefit sharing for protected area systems and local communities linking between users and provider both at National and county level in process.	Protected system to be focal points for ABS in the country;  Increased Bioprospecting activities within protected area systems;  Trails around two soda lakes;  Benefits from signed ABS agreements in support of conservation in place	Workshop reports; Procurement documents; Established facilities within the soda lakes; Signed PIC, MTA, MAT Minutes of meetings Monitoring tool kit for Bioprospecting activities within the soda lakes;	The government is committed to science and technology innovations and will be sustained throughout the Project period under vision 2030;
<b>Component 2; Systematic discovery of natural products for bio-pesticides and industrial enzymes</b>					

	Indicator	Targets Mid-point	Target End of projects	Source of verification	Assumptions
<b>Outcome 2.1:</b> At least 1 potential microbial isolate characterized and deposited at the Culture Collection Centre at Jomo Kenyatta University of Agriculture and Technology (JKUAT), the German Collection of Microorganisms and Cell Cultures (Deutsche Sammlung von Mikroorganismen und Zellkulturen – DSMZ) and Verenium Corporation;	Number of potential microorganisms isolated and screened;	Two microorganisms producing bioactive metabolites and enzymes identified  Culture collection centre under construction at JKUA	Four microorganisms producing bioactive metabolites and enzymes;  Culture collection centre at JKUAT in place;	Laboratory reports;  Functional culture collection centre at JKUAT;	A number of potentials microorganisms will be isolated;  Funds will be available;  Isolated potential microorganisms will remain viable;
<b>Outcome 2.2:</b> At least 1 enzyme product developed for agro-processing, starch and fuel, textile, food and beverage industries by the participating Kenyan institutions and the private companies (KIRDI, University of Nairobi Science and Technology Park, Rivatex East Africa, and the JKUAT Enterprise Ltd) and Verenium Corporation as the main industrial partner;	Number of microorganisms screened for enzyme production;  Number of bioactive enzymes characterized;	Pilot production and up scaling of at least potential Microbial candidates and enzyme production underway	One enzyme product;	Laboratory reports;  Number of patent applications;	One bioactive enzyme will have potential for industrial application;

	Indicator	Targets Mid-point	Target End of projects	Source of verification	Assumptions
<b>Outcome 2.3:</b> At least 1 biopesticide for enhanced seed and seedling treatment developed by the participating Kenyan institutions and the private companies (KIRDI, University of Nairobi Science and Technology Park and the JKUAT Enterprise Ltd);	Number of microorganisms screened for secondary metabolite production;  Number of bioactive compounds characterized;	Two microbial biopesticides under pilot production by JKUATES and KIRDI enterprises. Two bio-pesticide formulations based on isolated compounds under trials and up-scaling.	One pure compound;  One microorganism with potential industrial application;	Laboratory reports;  Number of patents;  Bio pesticide products	One bioactive compound will have potential for industrial application;  Isolated microorganism will have comparative commercial potential;
<b>Outcome 2.4:</b> A living library of Kenyan Soda lakes microorganisms established at JKUAT;	Number of microorganisms isolated;  Number of microorganisms identified and deposited at JKUAT culture collection centre;	Personnel for the living library identified and capacities build by DSMZ. Infrastructure for the living library at JKUAT improved and equipped.	A database of Kenya's soda lakes microorganisms within JKUAT culture collection;	Laboratory reports; Database; Number of people trained; PIC, MAT, MTA signed; Training reports;	Several microorganisms with potential industrial applications will be isolated;  Funds will be available to support a microbial culture collection at JKUAT;
<b>Component 3: Technology transfer between resource provider and user operationalized</b>					
<b>Outcome 3.1:</b> Technology transferred (including equipment, knowhow and training) from DSMZ and Verenum Corporation to local research institutions and protected area systems management;	Number of technologies transferred;	Negotiations advanced or at least underway on transfer of a technology	At least one industrial technology transferred to local institutions;	Agreements; Minutes of meetings;	The private partners will transfer appropriate technologies;
<b>Outcome 3.2:</b> An effective bioinformatics system in Kenya at KWS for Soda lakes microbial discovery to act as a system for monitoring and evaluation established	A functional bioinformatics for protected area system in place;	Outlines of a bioinformatics system for bioprospecting in protected agreed	A system of monitoring accessed material from protected area for Bioprospecting;	Reports;  Established bioinformatics laboratory in KWS;	Funds will be available;  ABS will be mainstreamed within protected area system;

	Indicator	Targets Mid-point	Target End of projects	Source of verification	Assumptions
<b>Component 4: ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources</b>					
<b>Outcome 4.1</b> ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources;	Equitable benefit sharing on use of indigenous genetic resources arising from effective partnerships between users and providers;	Partnership agreements in place and framework for benefit sharing being actively negotiated	Collaborative framework between the provider and user of soda lakes genetic resources in place;	Agreements; PIC; Minutes, letters; Reports;	The parties will faithfully work together to implement the provisions of the agreement and that there will be no external interference to the partnership.

## Annex 4: Project Design Quality

### Project title: Inception Report - Mid-Term Review of the UNEP/GEF Project “Developing the Microbial Biotechnology Industry from Kenya’s Soda Lakes in line with the Nagoya Protocol” “GEF ID Number 5626”

F

A.	Nature of the External Context <sup>5</sup>	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
1	Does the project document identify any unusually challenging operational factors that are likely to negatively affect project performance?	i) Ongoing/high likelihood of conflict?	No	Moderately Satisfactory
		ii) Ongoing /high likelihood of natural disaster?	Yes	
		iii) Ongoing /high likelihood of change in national government?	No	
B.	Project Preparation	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating: (See footnote 2)

No.	Aspect	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
2	Does the project document entail a clear and adequate problem analysis?	Yes	The CEO ER, entail a detailed a problem analysis under section B (project overview) and sub-section B.1.	Satisfactory
3	Does the project document entail a clear and adequate situation analysis?	Yes	CEOER has ample situation analysis under section B project overview: B.1.	
4	Does the project document include a clear and adequate stakeholder analysis, including by gender/minority groupings?	Yes	The CEO ER, includes a detailed stakeholder analysis under sub-section B.5. However, it does not include gender/minority groupings.	
5	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, gendered groups and those who will potentially be negatively affected)	No	Stakeholder consultation during project design process is not indicated in the project document.	

<sup>5</sup> 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).

No.	Aspect		YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
6	Does the project document identify concerns with respect to human rights, including in relation to sustainable development?	i) Sustainable development in terms of an integrated approach to human/natural systems	Yes	The document emphasizes human protection of micro-bio resources and sustainable access to these resources while ploughing benefits to communities, for sustainable use of biodiversity and equitable benefit sharing.	
		ii) Gender	Yes	The CEO ER under component 1, indicates that the management plans for the soda lakes will consider gender mainstreaming where all user groups will be brought on board, but the gender composition and how mainstreaming will be done to are not explained.	
		iii) Indigenous peoples	Yes	The CEO ER under component 1, subsection B.3 (Socioeconomic benefits to be delivered by the project at national and local levels) identifies involvement of indigenous peoples in ABS and PIC.	
C	Strategic Relevance			Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
7	Is the project document clear in terms of its alignment and relevance to?	i) UN Environment MTS and PoW	Partly	The CEO ER does not explicitly indicate a clear alignment and relevance to UN Environment MTS and PoW, but the content and focus are aligned.	Moderately Satisfactory
		ii) UN Environment /GEF/Donor strategic priorities (including Bali Strategic Plan and South-South Cooperation)	Partly	The CEO ER does not explicitly indicate a clear alignment and relevance to UN Environment /GEF/Donor strategic priorities, but the content and focus are aligned.	
		iii) Regional, sub-regional and national environmental priorities?	Yes	The document shows linkage to the national strategy for Bioprospecting within and outside protected areas which was launched by Kenya government through KWS, based on Bioprospecting experiences. It further shows how the Kenya government advocates for sustainable exploitation of her biodiversity through a fair and equitable distribution of resultant benefits of biodiversity utilization in research, development and commercialization as shown in the country's constitution article 69-72. The country's national legislation, Environmental Management and Coordination Act (EMCA), 1999 and the subsidiary EMCA law 2006 legal notice number 160 has established minimum standards for Access and Benefit Sharing. The government has also ratified various multilateral environmental agreements for example the CBD, CITES, ITPGFA and others which also include elements of benefit sharing. The country has also signed the Nagoya Protocol and is in the process of ratifying it. According to the constitution, all multilateral agreements and treaties ratified form part of the Kenyan law. Kenya Government has operational legislation on access and benefit sharing (ABS) of 2006 which was currently being considered for review to align with the constitution and the Nagoya Protocol.	
		iv) Complementarity with other interventions	Yes	As above	
D	Intended Results and Causality		YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
8	Is there a clearly presented Theory of Change?		No	The CEO ER did not include the theory of change, but the consultant has developed it as part of MTR deliverables (Figure 1).	Unsatisfactory



No.	Aspect		YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
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 log frame or the TOC?		No		
10	Are impact drivers and assumptions clearly described for each key causal pathway?		No		
11	Are the roles of key actors and stakeholders, including gendered/minority groups, clearly described for each key causal pathway?		Yes	The roles of key actors and stakeholders are presented under stakeholder analysis section.	
12	Are the outcomes realistic with respect to the timeframe and scale of the intervention?		Partly	The identification of enzymes in ample quantities, and commercialisation needed more time. This was given by key stakeholders as the reason why the industrial partners have not embarked on commercialisation.	
E	Logical Framework and Monitoring		YES/NO		Section Rating:
13	Does the logical framework...	i) Capture the key elements of the Theory of Change/ intervention logic for the project?	Yes	The project results framework (Annex A) includes outcomes, indicators, targets, source of verification and assumptions, though it does not include the ToC. The results framework lacked an elaborate monitoring plan and outputs were stated as activities rather than results. Some outcomes such as 3.1, 4.1 read like outputs rather than high level results.	Moderately Satisfactory
		ii) Have 'SMART' indicators for outputs?	No	The project document entails projects results framework that presents only outcome indicators.	
		iii) Have 'SMART' indicators for outcomes?	Yes	The project document entails projects results framework that presents SMART indicators for outcomes, but some indicators were not SMART and measurable, and indicators and targets were stated as results. Some outputs do not link directly to the outcomes, and some targets do not necessarily match outcomes. There was no standalone and comprehensive project exit strategy.	
		iv) Reflect the project's scope of work and ambitions?	Yes		
14	Is there baseline information in relation to key performance indicators?		No	The project document does not present the baseline information in relation to key performance indicators	
15	Has the desired level of achievement (targets) been specified for indicators of outputs and outcomes?		Yes		
16	Are the milestones in the monitoring plan appropriate and sufficient to track progress and foster management towards outputs and outcomes?		Yes		
17	Have responsibilities for monitoring activities been made clear?		No	The project document does not present responsibilities for monitoring activities	
18	Has a budget been allocated for monitoring project progress?		Yes	The CEO ER in Annex G includes only terminal Evaluation Budget. Other monitoring activities are included in project implementation budget.	
19	Is the workplan clear, adequate and realistic? (E.g., Adequate time between capacity building and take up etc.)		Yes	Activities are clear but implementation responsibilities and timelines are not included in the workplan matrix.	

No.	Aspect	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
F	Governance and Supervision Arrangements	YES/NO	Comments/Implications for the MTR 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? ( <i>Steering Committee, partner consultations etc.</i> )	Yes	The Project Steering Committee is in place and was scheduled to meet at least annually.	Highly Satisfactory
21	Are roles and responsibilities within UN Environment clearly defined?	Yes	Although the institutional and implementation arrangements were included, they were not inadequately defined and did not clarify specific roles of all key parties on the project, such as DELC, KWS and sub-partners.	
G	Partnerships	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
22	Have the capacities of partners been adequately assessed?	Not indicated		Moderately Satisfactory
23	Are the roles and responsibilities of external partners properly specified and appropriate to their capacities?	Yes	Roles and responsibilities of external partners are clearly specified under stakeholder analysis	
H	Learning, Communication and Outreach	YES/NO	Comments/Implications for the MTR design (e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.)	Section Rating:
24	Does the project have a clear and adequate knowledge management approach?	Yes		Satisfactory
25	Has the project identified appropriate methods for communication with key stakeholders, including gendered/minority groups, 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	Annex H of the project CEO ER shows appropriate methods for communication with key stakeholders.	
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	The design spells out the plan to establish an efficient information management system will be established for management of the living library of microbial culture collection. The Local research institutions will share information and best practices on bio-pesticide registration and application.	
I	Financial Planning/ Budgeting	YES/NO		Section Rating:
27	Are the budgets / financial planning adequate at design stage? ( <i>Coherence of the budget, do figures add up etc.</i> )	Yes		Satisfactory
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 no cost extensions</i> )	Yes		
J	Efficiency	YES/NO		Section Rating:
29	Has the project been appropriately designed/adapted in relation to the duration and/or levels of secured funding?	No	The project design brought on board both the industrial partners and universities at the same time yet some interventions could only start after some work has been done. For instance, the industrial partners had not yet started on their components by MTR waiting for large enough samples.	Satisfactory

No.	Aspect	YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
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 design utilised pre-existing institutions such as universities, county governments, that committed their resources to co-fund the project interventions.	
31	Does the project document refer to any value for money strategies (i.e., increasing economy, efficiency and/or cost-effectiveness)?	Yes	Under section B.6, the heavy costs of research and development borne by the private sector. It was anticipated that the use of natural bioresources from soda lakes would help promote cost-effective and efficient research with a long-term positive effect on the development of products for the improvement of human health.	
K	Risk identification and Social Safeguards	YES/NO	Comments/Implications for the MTR 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	Risks appropriately identified in section B.4 Risks of the CEO ER. However, this is not adequately identified in both the TOC/logic framework	Satisfactory
34	Are potentially negative environmental, economic and social impacts of the project identified and is the mitigation strategy adequate? ( <i>Consider unintended impacts</i> )	No	The document mentions the positive effects on transforming industries and responding to market demands today. The companies tailored enzymes are environmentally friendly, making products and processes greener and more cost-effective for industries including the global food and fuel markets.	
35	Does the project have adequate mechanisms to reduce its negative environmental foot-print? ( <i>Including in relation to project management</i> )	Yes	The document mentions the positive effects on transforming industries and responding to market demands today. The companies tailored enzymes are environmentally friendly, making products and processes greener and more cost-effective for industries including the global food and fuel markets.	
L	Sustainability / Replication and Catalytic Effects	YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
36	Was there a credible sustainability strategy at design stage?	Partly	The design spells out elements of an exit strategy such as the government support as a key element of the exit strategy. The project was designed in line with relevant government strategies, policies and legislations. It also builds on on-going initiatives by the partners. Technology. Together with NEMA and KWS, the NACOSTI will be involved in ABS regulatory framework review and also as part of the projects exit strategy where they will be requested to fund some of the identified activities.	Moderately Satisfactory
37	Does the project design include an appropriate exit strategy?	Partly	There is no standalone exit strategy but its elements are in the CEO ER.	
38	Does the project design present strategies to promote/support scaling up, replication and/or catalytic action?	Partly	The technologies were to be scaled up by the private sector partners and NACOSTI will to continue issuing permits.	
39	Did the design address any/all of the following: socio-political, financial, institutional and environmental sustainability issues?	Yes		
M	Identified Project Design Weaknesses/Gaps	YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:

No.	Aspect	YES/NO	Comments/Implications for the MTR design ( <i>e.g., questions, TOC assumptions and drivers, methods and approaches, key respondents etc.</i> )	Section Rating:
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	Yes, although the MTR could not get evidence of this.	Satisfactory
41	Were there any critical issues not flagged by PRC?	Yes	The lack of an elaborate a theory of change and monitoring plan were left out.	
N	Gender Marker Score	SCORE	N/A	

#### CALCULATING THE OVERALL PROJECT DESIGN QUALITY SCORE

No.	SECTION		RATING (1-6)
A	Nature of the External Context		4
B	Project Preparation		5
C	Strategic Relevance		4
D	Intended Results and Causality		3
E	Logical Framework and Monitoring		3
F	Governance and Supervision Arrangements		4
G	Partnerships		4
H	Learning, Communication and Outreach		6
I	Financial Planning / Budgeting		6
J	Efficiency		5
K	Risk identification and Social Safeguards		5
L	Sustainability / Replication and Catalytic Effects		4
M	Identified Project Design Weaknesses/Gaps		5
	<b>TOTAL</b>		<b>61</b>
	<b>AVERAGE</b>		<b>4.5</b>
1 (Highly Unsatisfactory)	< 1.83	4 (Moderately Satisfactory)	>=3.5 <=4.33
2 (Unsatisfactory)	>= 1.83 < 2.66	<b>5 (Satisfactory)</b>	>4.33 <= 5.16
3 (Moderately Unsatisfactory)	>=2.66 <3.5	6 (Highly Satisfactory)	> 5.16

## Annex 5: Review Terms of Reference

### UNITED NATIONS

#### Terms of reference

Job Opening number: 21-United Nations Environment Programme-148486-Consultant

Job Title: Mid-term Review (Level C)

General Expertise: Environmental Affairs

Category: Environment Planning and Management

Department/ Office: United Nations Environment Programme

Organizational Unit: UNEP ODED DEPI BLB GEF BDU

#### Duties and Responsibilities

The United Nations Environment Programme is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment". Its mandate is to coordinate the development of environmental policy consensus by keeping the global environment under review and bringing emerging issues to the attention of governments and the international community for action. UNEP's Ecosystems Division works with international and national partners, providing technical assistance and capacity development for the implementation of environmental policy, and strengthening the environmental management capacity of developing countries and countries with economies in transition. This consultancy post is located in UNEP/ Ecosystems Division / GEF Biodiversity and Land Degradation Unit.

UNEP is implementing a GEF project titled "Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol" executed by the UNEP regional Office for Africa (ROA) through the Kenya Wildlife Service (KWS).

UNEP would like to recruit a consultant to conduct a Mid-Term Review of this project. The Mid-Term Review will use a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the review implementation phase in order to increase their (and other stakeholder) ownership of the review findings.

The consultant will work under the direct supervision of the Task Manager, based in Nairobi, Kenya and the overall guidance of the Head, GEF BD/LD Unit, of the Biodiversity Ecosystem Service Branch based in Nairobi.

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

a) A desk review of: Relevant background documentation, inter alia, Project Document and Appendices, Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget; Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.; Evaluations/Reviews of similar projects; relevant policy and strategy documents, particularly when assessing relevance and alignment of the project. The consultant will also review all documentation of the sub-grantees including their contracts.

b) Consultations (individual or group) with: UNEP Task Manager (TM); Project management team; UNEP Fund Management Officer (FMO); All project partners, Kenya Wildlife Service (KWS), Ministry of Environment and Forestry as a GEF Operational Focal point, Ministry of Tourism, all levels of governance,

PSC, county government officials and park management teams through field visits: Other data collection tools: If needed, to be decided at the inception phase including Focus Group discussion (FGDs) with targeted beneficiaries to bring out community voices.

c) The project other partners will be interviewed which include county Government officials, Local communities,

University of Nairobi, Jomo Kenyatta University of Agriculture and Technology, Moi University, Kenya Industrial Research and Development Institute, University of Nairobi Science and Technology Park and Jomo Kenyatta University of Agriculture and Technology Enterprises, Rift Valley Textiles -RIVATEX.

## **Review Deliverables and Procedures**

The review team will prepare:

Inception Report: containing confirmation of the results framework and theory of change of the project, project stakeholder analysis, review framework, quality of project design and a tentative review schedule.

Preliminary Findings Note: the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings.

Draft and Final Review Reports: containing an executive summary that can act as a stand-alone document; detailed analysis of the review findings organised by review criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table. Come up with findings on the status of the implementation process to date, challenges faced, best practices and make recommendations to support the implementation of the Project.

## **Ultimate result of service**

Mid-Term Review Report of the "Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol". The results are expected to guide the execution of the project in its remaining term.

Title & ID number of programme/projects

GEF ID: 5626

Project Title: UNEP-GEF "Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol"

Is any other department or office of the Secretariat or any other organization of the United Nations involved in similar work to the best of your knowledge?

## **Outputs/Work Assignment**

Objectives: In line with the UNEP Evaluation Policy and the UNEP Programme Manual, the Mid-Term Review (MTR) is undertaken approximately halfway through project implementation to analyse whether the project is on-track, what problems or challenges the project is encountering, and what corrective actions are required. The MTR will assess project performance to date (in terms of relevance, effectiveness and efficiency), and determine the likelihood of the project achieving its intended outcomes, including their sustainability.

The consultant will be responsible, in close consultation with the Task Manager, for overall management of the review and timely delivery of its outputs, described below. The consultant will ensure that all evaluation criteria and questions are adequately covered.

Specifically, the consultant will be required to complete the following tasks:

Inception Report: will contain confirmation of the results framework and theory of change of the project, project stakeholder analysis, review framework and a tentative review schedule.



**Preliminary Findings Note:** the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings.

**Draft and Final Review Reports:** will contain an executive summary that can act as a stand-alone document; detailed analysis of the review findings organised by review criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.

**Review of the draft MTR report.** The review team will submit a draft report to the Task Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Task Manager will share the cleared draft report with key project stakeholders for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Task Manager for consolidation. The Task Manager will provide all comments to the review team for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

#### **Expected Outputs (Deliverables):**

- Tentative schedule for the review
- Milestone Indicative Timeframe
- Inception Report: 17 April 2021
- Review Mission: 24 April ñ 6 May 2021
- Telephone interviews, surveys etc: 7-31 May 2021
- Presentation on preliminary findings and recommendations: 6 June 2021
- Draft Report to Task Manager: 13 June 2021
- Draft Report shared with the wider group of stakeholders: 16 June 2021
- Final Main Review Report: 24 June 2021
- Final Main Review Report shared with all respondents: 30 June 2021
- Budget line: M99-32GFL-11207-14AC0003-SB-000689.46.04

#### **Expected Duration**

3 months from 6 April 2021.

#### **Evaluation Criteria**

**Academic Qualifications:** Master's degree in Natural sciences, Natural resources Management, Environmental

Sciences, International Development or other relevant political or social sciences area.

**Experience:** - A minimum of 10 years of technical/evaluation experience, including of project planning, management, monitoring and evaluation.

-Experience in evaluation of GEF projects is highly desirable.

-Excellent writing skills; team leadership experience and, where possible, knowledge of the UN system, specifically, of the work of UNEP and GEF programming is an asset.

-Experience in managing partnerships, knowledge management and communication is desirable for all evaluation consultants.

**Language:** - English and French are the working languages of the United Nations Secretariat.

For the post advertised, fluency in oral and written English is required

## Annex 6: List of Documents Consulted During the Review

1. Amendment No1. To the Internal Corporation Agreement (ICA) between UNEP Ecosystems Division (UNED) and UNEP Africa Office signed, 2018
2. Amendment No.2. To the Internal Corporation Agreement (ICA) between UNEP Ecosystems Division (UNED) and UNEP Africa Office signed, 2018
3. Draft Minutes of the First Project Steering Committee Meetings, 2015
4. Draft Minutes of the Second Project Steering Committee Meetings, 2018
5. Draft Minutes of the Third Project Steering Committee Meetings, 2020
6. Internal Corporation Agreement (ICA) between UNEP Ecosystems Division (UNED) and UNEP Africa Office signed in June 2018 and its Amendments
7. Internal Corporation Agreement (ICA) between UNEP Ecosystems Division (UNED) and UNEP DELC
8. Memorandum of Agreement (MOA) for Partnership and Collaborative Development of Microbial Biotechnology Industry from Kenya's Soda Lakes in Line with the Nagoya Protocol (Soda Lakes Project)
9. Project Corporation Agreement (PCA) between UNEP and Kenya Wildlife Services (KWS), signed August 2014.
10. Project Six Monthly Progress reports
11. Soda Lakes Project Memorandum of Understanding with Dudutech by KWS
12. The Office of Internal Oversight Services (OIOS) Audit of Management partnerships at UNEP 2020/2021
13. UN Environment Medium Term Strategy (MTS) and Programme of Work (POW) 2010 - 2013
14. UN Environment/GEF/GEF: ID5626 Request for CEO Approval "Developing the microbial biotechnology industry from Kenya's soda lakes in line with the Nagoya Protocol"
15. UNEP GEF Project Implementation Review (PIR) Reports for Fiscal Years 2015, 2016, 2017, 2018, 2019, and 2020,
16. KWS Half Yearly Progress Report July - December 2017
17. KWS Half Yearly Progress Report July - December 2018
18. KWS Half Yearly Progress Report July - December 2019
19. UNEP UN Environment/GEF/GEF, Structure of an Inception Report, 2020
20. UNEP, Mid-Term Review Report for the UNEP/GEF Project "Scaling Up Sustainable Land Management and Agro-Biodiversity Conservation to Reduce Environmental Degradation in Small-Scale Agriculture in Western Kenya" "GEF ID Number 5272", November 2020.
21. UNEP, UN Environment: Criterion Rating Descriptions Matrix, 2019
22. UNEP, UN Environment: Terms of Reference for the Mid-Term Review of the UNEP/GEF Project "Developing the Microbial Biotechnology Industry from Kenya's Soda Lakes in line with the Nagoya Protocol" "GEF ID Number 5626", 2021
23. UNEP/GEF CEO Approval of the "Developing the Microbial Biotechnology Industry from Kenya's Soda Lakes in line with the Nagoya Protocol" project, 2013
24. UNEP/GEF: Terminal Evaluation of the UNEP/Global Environment Facility/Government of South Africa Project Inception Report, 2018 and main report.
25. UNEP: evaluation Criterion Rating Descriptions Matrix, 2019
26. UNEP: Terms of Reference Template for Mid-Term Evaluation of the UNEP GEF Project, 2015

## Annex 7: Partner Implementation Matrix

Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
1. To enhance the legal and regulatory framework on ABS in Kenya	1.1.3 Identify and map out soda lakes areas in the country, select two priority areas and through stake holder process develop management plans which include aspects of benefit sharing	Management plans in selected soda lakes inclusive of local communities and aspects of benefit sharing developed	Appropriate system for effective resource management and equitable benefit sharing among stake holders developed;	15,000	15,000	KWS/Local communities
	1.2.3 Develop outreach material and disseminate to protected area management through education awareness;	Protected area system and local communities sensitized on ABS requirements and operations	Capacities of protected area system and local communities enhanced which promote best bioprospecting practices and good conducts in the country	3,000	3,000	KWS/UNEP
	1.2.2 Together with the national bioprospecting steering committee through a stake holder consultative process develop and launch a bioprospecting tool kit for monitoring impact of bioprospecting projects on conservation and community livelihoods	Toolkit for measuring impacts of bioprospecting in the country developed	A system of monitoring and evaluating bioprospecting and identified check points between provider and user as per Nagoya Protocol established	10,000	10,000	KWS

Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
	1.2.4 Map out, procure and construct infrastructure facilities within the soda lakes to enhance research and tourism (e.g. Nature trail in Lakes Bogoria, Elementality and simbi Nyaima) for KWS and adjacent communities	Facilities for research and nature trails to promote conservation and tourism within the selected soda lakes established	High quality of customer service realized within the selected soda lakes;	10,000	<b>10,000</b>	KWS/Local communities
<b>2. Systematic discovery of natural products for biopesticides and industrial enzymes</b>	2.1.1 Undertake field sampling from the soda lakes at different seasons, isolation of microorganisms and screening of the microbes for cellulase, protease and Phytase activities for a agro-processing, starch and fuel, textile, food and beverage and protein hydrolysis and deposit pure strains in culture collection centres at JKUAT, DSMZ and Verenum Corporation	A bank of soda lakes microorganisms with known potential application generated	An effective system for bioprospecting for microorganisms from the soda lakes with industrial application in place;	34,224	<b>UoN 20,224</b> <b>JKUAT 14,000</b>	Seasonal sampling – JKUAT (Biopesticides) UoN (Enzymes) Isolation – JKUAT (Biopesticides) Screening – JKUAT (Biopesticides) & Characterization – JKUAT & UoN Deposit - JKUAT
	2.1.2 Select, characterize and deposit in the culture collection centres in JKUAT and DSMZ potential isolates producing bioactive secondary metabolites as biopesticides for	Industrial microbes from the soda lakes identified and deposited in designated culture collection centres in line with Nagoya Protocol	Potential industrial microbes from the country held in approved <i>ex situ</i> collections for further research	40,000	<b>JKUAT - 25,000</b> <b>KIRDI – 15,000</b>	Industrial Biopesticide screening – JKUAT & KIRDI Selection/prioritization, fermentation - JKUAT & KIRDI Upscaling – JKUAT Es & KIRDI

Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
	seed and seedling treatment;		and development as per Nagoya Protocol;			
	2.2.1 Undertake fermentation optimization studies of identified candidates for large scale production of cellulases, proteases and phytases for industrial production	Fermentation techniques for priority microorganisms with industrial potential standardized	Bio-processing technologies for the soda lakes microorganisms with industrial applications established;	30,000	<b>UoN &amp; UoNSTP – 15,000</b>  <b>KIRDI – 9,000</b>  <b>RIVATEX – 6,000</b>	Fermentation optimization – KIRDI, UoN, UoNSTP & RIVATEX
	2.2.2 Undertake formulation and evaluation of the produced enzymes for application in starch and fuel, textile, food and beverage industries together with the private companies (KIRDI, Rivatex, University of Nairobi Science and Technology Park, the JKUAT Enterprise Ltd and Verenium Corporation)	Enzymes derived from soda lakes microorganisms piloted for industrial production	Bio-processing technologies for the soda lakes microorganisms with industrial applications established;	40,000	<b>UoN – 23,000</b>  <b>KIRDI – 5,000</b> <b>RIVATEX – 12,000</b>	Formulation – UoN, KIRDI, RIVATEX, UoNSTP  Evaluation – UoN, UoNSTP, KIRDI & RIVATEX  Packaging – UoN, UoNSTP, KIRDI & RIVATEX
	2.3.1 Optimize fermentation conditions for large scale production of biopesticides for industrial production	Fermentation techniques for priority microorganisms of biopesticide industrial potential standardized	Bio-processing technologies for the soda lakes microorganisms with industrial applications established;	30,000	<b>JKUAT – 20,000</b>  <b>KIRDI – 10,000</b>	Fermentation – JKUAT, JKUATes, KIRDI and industrial partners (JKUAT & KIRDI to explore an industrial partner)
	2.3.2 Formulate and evaluate produced biopesticides for	Biopesticides derived from soda lakes microorganisms	Bio-processing technologies for the soda	15,000	<b>JKUAT – 9,000</b>	Formulation – JKUAT, KIRDI, JKUATes and industrial partner

Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
	application in the seed and horticulture industry together with the private companies (University of Nairobi Science and Technology Park, the JKUAT Enterprise Ltd and KIRDI)	ms piloted for industrial production	lakes microorganisms with industrial biopesticide applications established;		<b>KIRDI – 6,000</b>	Evaluation - JKUAT, KIRDI, JKUATes and industrial partner  Field testing – JKUAT, KIRDI, JKUATes and industrial partner (Licensed private partner)
	2.4.1 Upgrade the Culture Collection Centre at Jomo Kenyatta University of Agriculture and Technology (JKUAT) to a national culture collection to support discovery of potential Soda Lakes microbial products	A functional microbial culture collection centre established at JKUAT	A central microbial culture collection centre established in the country to serve as an <i>ex-situ</i> depository in line with Nagoya Protocol and national laws;	70,000	<b>JKUAT – 70,000</b>	Equipping: Skills & infrastructure - JKUAT  Developing guidelines -JKUAT  Designating (gazettement as a national collection) - JKUAT (KWS, NEMA & NACOSTI)  Operationalization - JKUAT
<b>3. Technology Transfer between resource provider and user operationalized</b>	3.1.1 Undertake an economic evaluation of the developed bioprocess technologies for efficient secondary metabolite production from the soda lake microorganisms to establish market potential	Valuation of generated Intellectual Property for the market place	Generated Intellectual Property protected and commercialized through technology transfer agreements;	20,000	<b>MOI – 15,000</b>  <b>UON – 5,000</b>	Moi / RIVATEX, KIRDI & UoN  Technology transferred to local research institutions and resource managers Evaluation of transferred technology  And explore KIPi (To further explore and discuss on how to undertake this activity)
	3.1.2 Train personnel and improve culture collection facilities at JKUAT by DSMZ	Operations at the culture collection centre at JKUAT enhanced	A fully functional national microbial culture collection centre;	4,800	<b>JKUAT – 4,800</b>	JKUAT & KWS on PIC



Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
	3.2.1 Identify, install and train personnel on appropriate software system for monitoring biological specimen collection and movement from Kenya	An efficient monitoring and evaluation system on accessed biological resources established	An improved monitoring of utilization (research and development) of biological resources and equitable share of resultant benefits for enhanced conservation and livelihood;	30,000	<b>30,000</b>	KWS
	3.2.2 Map out, procure, construct and equip a bioinformatics centre at KWS	Bioinformatic facility established and equipped for improved bioprospecting activities within protected area systems in the country	Systematic bioprospecting within the country promoted;	30,000	<b>30,000</b>	KWS
<b>4. ABS agreements developed to build the capacity of the Kenyan authorities to engage with users of genetic resources</b>	4.1.1. Through legal consultancy, develop by way of consultation an ABS agreement between provider (KWS and Soda lakes community's county government), local Kenyan institutions (KIRDI, Moi University, University of Nairobi Science and Technology Park Ltd and the JKUAT Enterprise Ltd), DSMZ and the industrial partner, Verenum Corporation) in line with Nagoya	A framework for effective implementation of the soda lakes ABS project developed among partners in line with Nagoya Protocol	An ABS agreement developed to guide bioprospecting activities within the country's soda lakes established;	8711	<b>8711</b>	KWS

Component	Activity	Deliverables	Benchmarks	AMOUNT (USD)	Amount per institution (USD)	Implementing Institutions
	Protocol on Mutually Agreed Terms					
	4.1.2 Develop key elements of ABS i.e., Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and Material Transfer Agreement (MTA) through stake holder consultation and operationalize within the project	Guidelines for PIC, MAT and MTA developed to guide bioprospecting activities within the soda lakes	Bioprospecting activities guided by the standard PIC, MAT and MTA	5265	5265	KWS
<b>5. Project management cost</b>	5.1.1 Project partners briefing and steering committee formation			3,000		KWS
	5.1.2 Project administrative assistant			20,000		
	5.1.6 Communications			1,000		
	5.1.7 Office supplies			20,000		
<b>TOTAL AMOUNT</b>				<b>440,000</b>		

#### Final analysis of funds per institution (Totals)

KWS	USD 155,976
JKUAT	USD 142,800
KIRDI	USD 45,000
Moi University/RIVATEX	USD 33,000
UoN	USD 63,224
<b>TOTAL</b>	<b>USD 440,000</b>

## Annex 8: Consultant's Curriculum Vitae

### CURRICULUM VITAE Julian Kobutungi Bagyendera, PhD

#### BIODATA

**Nationality:** Ugandan  
**Date of Birth:** 2<sup>nd</sup> October, 1972  
**Sex and Marital Status:** Female, married with 3 children

**ADDRESS:** Provide and Equip Ltd, P.O. Box 32315 Kampala, Uganda. Email: julian@provide-equip.com/julianbagye@gmail.com Skype: Julian. Bagyendera Tel. +256-772-696060, +256-700696060. www.provide-equip.com.

#### SUMMARY

I am a Project Management, Evaluation Specialist with over 27 years of work experience in conducting baseline, mid and end-term evaluations for programmes in: climate change (CC), environment, agriculture, HIV/AIDS, population, reproductive health, malaria, socio-economic strengthening, social protection, education, gender mainstreaming and integration, human and child rights, governance, advocacy, private/public partnerships, capacity building and community development. She is experienced in managing complex programs with multiple implementers and funding agencies; particularly: The World Bank GEF, UNRCO, UNDP, UNEP Kenya, UNICEF, UNAIDS, UNFPA, UN Women, WHO, CDC, EU, USAID, DoD, US Embassy, Pearce Corps, Iris Group, DFID, DANIDA, SIDA, Italian Corporation, Irish Aid, Makerere School of Public, Uganda AIDS Commission, Welshare, Comic Relief, Danish Aid, Amref Health Africa, and Save the Children International. I have international experience working in Uganda, South Africa, Kenya, Tanzania, Rwanda, P.R. China, Ethiopia, Liberia, Malawi, U.S.A, Thailand, Netherlands and Canada.

As a team leader, I worked as an international and national consultant for over 60 related assignments mid-term review of GEF/UNEP for evaluating SLM/SFM project in Kenya, End-term evaluation for: World Bank (WB)/GEF terminal evaluation for enhancing performance and accountability of social service contracts in Uganda; evaluation of WB Strategic Country Cluster Evaluation (SCCE), Terminal Evaluation of GEF/Conservation International Program on Strengthening the Capacity of Institutions in Uganda to Comply with the Transparency Requirements of the Paris Agreement, developed the Uganda national CC indicators and facilitated a series of CC mainstreaming workshops for key sectors supported by USAID/Feed the future, end-term evaluation for: WB/GPSA project on enhancing performance and accountability of social service contracts in Uganda; developed Liberia Country Program for EU/UN Spotlight to address GBV and SRHR issues, UNAIDS/Geneva HIV/Social Protection Assessment Malawi and Uganda. Currently, she works as the Executive Director/Team Leader Evaluations for Provide and Equip (P&E) Ltd, an M&E/Management Consultancy Firm headquartered in Uganda. She previously worked in several senior project management positions that include: Chief of Party, M&E Program Director, Deputy Chief of Party, Senior M&E Technical Advisor, M&E Coordinator and M&E Manager. She holds PhD in Project Management (with a thesis on M&E), MBA and BA (Social Sciences). I am a member of Uganda Evaluation Association (UEA), AFREA and SAMEA, and IDEAS. I am skilled in: MS Office packages, SPSS, STATA, NVIVO, GIS Mapping, PDA, Smart Phone and GPS electronic data collection technologies and SQL/Access databases. I am an experienced team leader with a niche in timely performance excellence and integrity.

#### EDUCATION

- 2012 Doctorate of Philosophy in **Project Management**, Atlantic International University, Hawaii, USA. Produced a thesis on "Factors influencing data utilization among civil society organizations and its effects on data quality and program effectiveness: A case study of Uganda civil society".
- 2000 Master of Business Administration (MBA) [**Management**] Central South University of Technology, Changsha, Hunan, P. R. China. Produced a thesis on "The Current Trend of Modern Enterprise Management".
- 1995 Bachelor of Arts (Social Sciences); **Social Administration** and Sociology - Makerere University, Uganda. Produced a dissertation on "The Role of NGOs in Assisting Vulnerable Children".

## OTHER CERTIFICATES OBTAINED

**Good Clinical Practice (GCP) certificate (Oct 2020)**, By NIDA Clinical Trials Network

**Purpose:** Skills in Clinical Research Ethics

**Research Ethics and Training (June 2016)**, By FHI 360.

**Purpose:** Skills in Research Ethics

**Impact evaluation (June 2016)**, International initiative for Impact Evaluation (3ie)

**Purpose:** To obtain basis skills in impact evaluation methods, opportunities and challenges

**Integrity Leadership and Standards of Business Conduct (June 2012)**, by Chemonics International

**Purpose:** To maintain and foster a culture of integrity and responsible business practices

**USAID/CDC Regulations, Policies and Financial Management (April 2011)** by USAID/Center for Development Excellence

**Purpose:** To be conversant with USAID/CDC contract and financial management requirements.

**Programme Evaluation** for USAID Programs (September 2007), by USAID/Monitoring & Evaluation Management Systems (MEMS). **Purpose:** To acquire practical skills in evaluating programs.

**Performance Monitoring and Evaluation** for USAID Programs (July 2005), by USAID/Monitoring & Evaluation Management Systems (MEMS)

**Purpose:** To acquire skills in managing for results, indicator development, realistic target setting, data collection, data utilization and designing Pumps.

**Basic Course Ethics for Research on Human Subjects** (December 2008), by CITI Collaborative Institutional Training Initiative. **Purpose:** Learn the ethical values to be adhered to during research on human subjects.

**Quality Standards for OVC Programmes** (November 2007), by USAID/CORE Initiative Programme

**Purpose:** To acquire practical skills in defining, setting and measuring national level and service quality standards

**Statistical Training on Practical Data Analysis Using STATA** (February 2005), by Makerere University Institute of Statistics and Applied Economics. **Purpose:** Practical training in data analysis using STATA

**Introduction to Social Marketing Research** (February 2005) and **Dash Board Data Analysis Training** (July 2005), by Population Services International. **Purpose:** Practical skills in measuring outcomes of social marketing interventions and conducting data analysis.

**New Agendas for Poverty Reduction: Integrating Gender and reproductive Health in Poverty Reduction Strategies** (February 2003), by The World Bank Institute. **Purpose:** To revise Uganda's PRS and incorporate gender and reproductive health in poverty reduction strategies

**Participatory Project Monitoring and Evaluation** (May 2003), by Uganda Management Institute. **Purpose:** To acquire comprehensive participatory project management and evaluation skills.

**Monitoring and Evaluating Population Programmes** (July 2003), **By:** Department of Population Studies, Institute of Statistics and Applied Economics, Makerere University.

**Purpose:** To acquire specific skills in monitoring and evaluating the population programmes, and gender advocacy programmes.

**Public Procurement** (August 2003), by Public Procurement and Disposal of Assets (PPDA)  
**Purpose:** To improve credibility of public procurement systems in Uganda and adopt new procurement systems.

**Advocacy and Advocacy Strategy Development** (April 2003), by USAID/ Policy II project  
**Purpose:** To acquire essential skills in issue-based advocacy and in drawing up advocacy action plans.

## AWARDS OBTAINED

Best 'Employee of the Month' in May 2005 at Population Services International (PSI) for extra hard work and timely delivery of results as the M&E Manager. Certificate of merit as Head-Girl at Kigezi High School.

## WORK EXPERIENCE

**Jan 2013 to date: Executive Director/Team Leader Evaluations, Provide and Equip Limited**

### Main Accomplishments

- Provided overall strategic leadership and project oversight of the company, and overall leadership to the Technical; Finance, HR and Administration Departments.
- Served as Team Leader for evaluations and well as Managing Consultant as the primary project liaison to contractors.
- Performed overall contract management and ensured compliance with all contractual requirements.
- Performed overall management of company finances This entailed; budget development and monitoring, making approvals for all financial transactions and project procurements; signing off checks, reviewing project accountabilities, and ensuring submission on monthly returns to the Uganda Revenue Authority.
- Ensured oversight of HR management functions including; recruitment, performance appraisal, remuneration, staff development, leave approval and tracking and ensuring adherence to the policy and procedures manual.
- Worked as the Lead/Principle investigator of evaluation assignments.

## RECENT CONSULTANCIES/RESEARCHES CONDUCTED AS TEAM LEADER

No.	Contractor's Name	Period	Brief Overview of Accomplishments
1.	GEF/UN Environment Programme (UNEP)	01/04/20 to 31/12/20	As an <b>international consultant</b> , conducted Mid-Term Review of the UN Environment/Global Environment Facility Project "Scaling Up Sustainable Land Management and Agro-Biodiversity Conservation to Reduce Environmental Degradation in Small-Scale Agriculture in Western Kenya
2.	World Bank, Independent Evaluation Office of the Global Environment Facility (GEF)	22/3/19 to 30/6/19	Conduct ex-ante Strategic Country Cluster Evaluation (SCCE) in Uganda, as part of 23 countries in Sub-Saharan Africa, covering 6 GEF projects that closed 10 years before with interventions on conservation of biodiversity in Albertine region, protected areas management and sustainable use, invasive plant management, overcoming land degradation in the cattle corridor, Integrated landscape management
3.	USAID/Uganda Feed the Future, Enabling Environment for Agriculture, Chemonics International.	15/3/16 to 29/7/16	Developed the national climate change indicators. Facilitated a series workshop for <b>38 Feed the Future Districts</b> to develop <b>Climate Change (CC)</b> action plans aligned to the national Output Based Budgeting. Conducted CC technical capacity assessment and facilitated the development of CC strengthening action plans for the Ministry of Water and Environment and Ministry of Agriculture Animal industry and Fisheries.
4.	USAID/EEA, Chemonics International	24/11/14 to 30/4/15	Facilitated a workshop for District Leaders and <b>Climate Change</b> Focal point persons on mainstreaming Climate Change (CC) into the District Development Plans and developing Climate Change indicators for the national Output Based Budgeting.
5.	USAID/EEA, Chemonics International	24/11/14 to 30/4/15	Facilitated a district leader's workshop for mainstreaming <b>Climate Change (CC)</b> into the District Development Plans
6.	United Nations Development Program (UNDP)/RCO	23/7/18 to 22/10/2018	Conducted Midterm Review of United Nations Development Assistance Framework (UNDAF) for all UN agencies in Uganda, including <b>SDGs, NDP II and new UN reforms</b> covering <b>Governance, Human Capital Development (HCD) and Sustainable and Economic Development. Including all 11 refugee hosting districts.</b>

No.	Contractor's Name	Period	Brief Overview of Accomplishments
7.	USAID/Uganda Feed the Future, Enabling Environment for Agriculture (EEA), Chemonics International.	21/4/15 to 30/6/15	Facilitated a workshop for District Technical Planning Committees on mainstreaming <b>Climate Change (CC)</b> into the District Development Plans and developing Climate Change action plans indicators for the national Output Based Budgeting.
8.	UN Women, Liberia	6/8/18 to 20/8/18	International Results Based Management (RBM) Consultant – Country Program Document Development for <b>Liberia EU/UN Spotlight Initiative</b> to address <b>all forms of violence against women and girls</b> ; and aligning it to SDGs.
9.	USAID/Uganda Feed the Future Commodity Production & Marketing, Chemonics International.	5/14/13 - 11/15/13	Designed and provided <b>technical support</b> to the implementation of Feed the Future (FTF) baseline survey regarding improving the quantity and quality of coffee, maize, and beans produced and marketed by small-holder farmers. Developed the project results framework and <b>performance management Plan (PMP)</b> .
10.	UNAIDS Geneva/MoGCW Malawi	7/8/2020 to 30/10/2020	As an <b>international consultant</b> , conducted an <b>HIV and Social Protection Assessment in Malawi</b> .
11.	Infectious Diseases Institute (IDI)	09/03/20 to 31/7/20	Combined baseline, mid-term and end of term evaluation for West-West Nile and Kampala Regional projects.
12.	UNHCR	10/02/20 to 31/12/20	Conducted the Education Response Plan for Refugees and Host Communities (ERP) Baseline Survey in all 13 Refugee hosting districts
13.	American Cancer Society/Clear Outcomes	17/01/20 to 31/05/24	Provided data collection and evaluation support for baseline survey, process and outcome evaluations for ACS Global Patient Navigation Expansion Initiative
14.	World Bank/ Global Partnership for Social Accountability	23/12/19 to 31/12/20	Conducted end of project evaluation for enhancing performance and accountability of social service contracts in Uganda project
15.	UNICEF	22/11/19 to 30/06/2020	Developed the National Nutrition Communication Strategy and Plan of Action; and Karamoja Nutrition Communication Campaign
16.	Uganda AIDS Commission	21/12/19 to 30/4/20	Served as the lead M&E consultant for developing the National HIV/AIDS Strategic Plan 2020/21- 2025/26 and Its M&E Plan and indicator handbook; and aligned them to SDGs and NDP III.
17.	USAID Uganda/Global Health Pro	12/8/19 to 02/11/19	Performed M&E system assessment, support and data verification for <b>DREAMS project (HIV, FP, GBV and IGA) in 7 districts</b> of northern Uganda ( <b>Acholi and Lingo Regions</b> ).
18.	Overseas Development Institute (ODI)/UNDP/ NPA	01/4/19 to 30/9/19	Conducted <b>Sustainable Development Goals (SDGs)</b> policy and institutional gap analysis in Uganda.
19.	UNICEF	5/2/19 to 30/5/19	Conducted the Knowledge, Attitudes and Practices (KAP) assessment on the Key Family Care Practices ( <b>KFCPs</b> ) in <b>30 districts</b> . KFCPs included <b>RMNCH, nutrition, WASH, education and child protection</b> .
20.	UNAIDS Geneva/MGLSD	10/09/18 to 19/01/19	Conducted an <b>HIV and Social Protection Assessment</b> in Uganda, including interviews with people living with HIV, <b>key populations and sexual minorities</b> such as transgender, commercial sex workers, truck drivers, injectable drug users and men having sex with men.
21.	USAID/QED Group LLC, Monitoring Evaluation and Learning	11/6/18 to 15/08/18	Conducted DO1 ( <b>Socio-economic Strengthening</b> ) data quality Assessments and MEL System Assessment for 4 USAID funded projects ( <i>Power Africa Uganda Electricity Supply Accelerator, Producer Organizations, Send the Cow Uganda, Youth Leadership for Agriculture</i> across 7 districts).
22.	USAID Regional Health Integration to Enhance Services in the Acholi Region of Northern Uganda (USAID RHITES-N Acholi)	25/5/18 to 7/7/18	Conducted <b>gender, youth and social inclusion</b> analysis baseline survey in <b>8 districts</b> of Northern Uganda, Acholi Region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader).
23.	USAID/QED Group LLC, Monitoring Evaluation and Learning	15/5/18 to 15/07/18	Conducted DO3 (Family Health) data quality Assessments and MEL System Assessment for <b>12 USAID funded health projects</b> 14 districts (RHITES-SW, RHITES-EC, RHITES-E, HIWA, Voucher Plus, MAPD, SITES, Indoor Residual Activity, CHC, UHSC, SMA and Defeat TB) in <b>TB, malaria, family planning, and FP, reproductive health, water and sanitation programs</b> .
24.	USAID/QED Group LLC, Monitoring Evaluation and Learning	11/12/17 to 31/07/18	Provided training and data collection management services for the evaluation of USAID/Uganda Private Health Support (PHS) Program.
25.	USAID/QED Group LLC, Monitoring Evaluation and Learning	07/11/17 to 15/12/17	Provided training and data collection management services for the evaluation of 'Obulamu' campaign under Communication for Health Communities/FHI360.
26.	UNFPA	28/9/2017 to 30/11/17	Conducted a Baseline Survey on Sexual and Reproductive Health Rights (SRHR)/GBV in 16 Selected Drought Affected Districts in Uganda ( <b>including 4 Karamoja districts</b> ); in line with SDGs, NDP II and HSSP).
27.	UNAIDS	28/9/2017 to 30/11/17	Conducted a Baseline Assessment of SRH/HIV Linkages in Uganda ( <b>including 5 Karamoja districts</b> ); in line with SDGs, NDP II and HSSP.



No.	Contractor's Name	Period	Brief Overview of Accomplishments
28.	USAID/QED Group LLC, Monitoring Evaluation and Learning	07/8/17 to 30/09/17	Conducted DO1 (Socio-economic Strengthening) data quality Assessments and MEL System Assessment for 7 USAID funded projects across 6 districts.
29.	USAID/QED Group LLC, Monitoring Evaluation and Learning	15/6/17 to 30/09/17	Conducted DO3 data quality Assessments and MEL System Assessment for 10 USAID funded <b>health</b> projects ( <i>Uganda Social Marketing Activity (SMA), Maternal and Child Survival program (MCSP), Regional Health Integration to Enhance Services-SW (RHITES-SW), Health Initiatives in Workplace Activity (HIWA) and Uganda Health Supply Chain Program (UHSC), USAID's Malaria Action Program for Districts (MAPD), Procurement and Supply Management (PSA), Voucher Plus, RHITES-EC.) (TB, malaria, family planning, and FP, reproductive health, water and sanitation)</i> )
30.	World Health Organisation (WHO)	05/6/17 to 15/08/17	Conducted a meningitis vaccination coverage survey including household listing in 39 districts (including <i>all northern and all Karamoja districts</i> )
31.	Save the Children International	15/5/17 to 31/7/17	Conducted a mid-term evaluation for the maternal, neo-natal and child health program in Ntoroko district and assessed alignment to NDP II.
32.	Amref Health Africa	24/5/17 to 31/5/17	Conducted a mid-term evaluation for the <b>maternal, neo-natal and child health</b> program in 2 districts; and assessed alignment to NDP II.
33.	Danish People's Aid (DPA)	01/03/17 to 28/03/17	Conducted the End of Project Evaluation Report for Improving <b>Environmental Sanitation and Livelihoods</b> in Kampala by Up-scaling the Use of the Community Lead Urban Environmental Sanitation (CLUES II) Approach.
34.	Aga Khan Foundation Canada (AKFC)	17/10/16 to 31/1/17	Conducted Data Quality Assessment in <b>Kenya</b> (Nairobi and Mombasa), <b>Tanzania</b> (Dar es Salaam and Lindi) and <b>Uganda</b> (Kampala and Arua) for the Strengthening <b>Education</b> Systems in East Africa (SESEA) project.
35.	USAID/QED Group LLC, Monitoring Evaluation and Learning	20/10/16 to 30/07/16	Conducted DO3 data quality Assessments and MEL System Assessment for 7 USAID funded <b>health</b> projects ( <i>family planning, HIV/AIDS, nutrition and malaria</i> )
36.	DFID/ECO-Fuel Africa	27/5/16 to 20/6/16	Conducted Midline Evaluation to assesses <b>learning outcomes</b> using Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) Assessment tools.
37.	The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)/RHITES-SW	13/4/16 to 15/5/16	Conducted a baseline survey USAID Regional Health Integration to Enhance Services Project in 16 districts in South Western Uganda
38.	Makerere University School of Public Health	20/11/15 to 28/2/16	Conducted end of Project Evaluation of the Maternal and Neonatal Implementation for Equitable Systems (MANIFEST) study (January 2013 – April 2016)
39.	USAID/QED Group LLC, Monitoring Evaluation and Learning	12/12/15 to 23/12/15	Conducted DO1 data quality Assessments and MEL System Assessment for 7 USAID funded <b>Agriculture</b> and Socio-Economic Development projects.
40.	USAID/QED Group LLC, Monitoring Evaluation and Learning	23/10/15 to 11/11/15	Conducted DO3 data quality Assessments and MEL System Assessment for 8 USAID funded <b>health</b> projects ( <i>family planning, HIV/AIDS, nutrition and malaria</i> )
41.	USAID/QED Group LLC, Monitoring Evaluation and Learning	22/10/15 to 1/6/18	Performed <b>sub contract management</b> for program on M&E systems and frameworks, conducting surveys to support evaluations and research, collecting and analyzing data, and delivering data quality assessments.
42.	Iris Group	14/10/15 to 31/12/15	Conducted data quality Assessments for <b>socio-economic</b> entrepreneurs
43.	AMREF	15/7/15 to 31/8/15	Conducted a baseline survey for the maternal, neo-natal and child health program in 2 districts.
44.	USAID/URC/ASSIST	13/7/15 to 31/12/15	Provided M&E <b>Technical Support</b> to the project including conducting DQAs and MEL System Assessment.
45.	UNFPA	15/6/15 to 30/8/15	Conducted an end of program evaluation for the UN Joint Population program in Uganda implemented by 10 UN Agencies in 15 districts ( <b>including 7 Karamoja districts</b> ).
46.	USAID/Monitoring and Evaluation of Emergency Plan Progress (MEEPP) Uganda	4/6/15 to 30/11/15	Provided management and technical support supervision services to 13 Senior Consultants for District M&E Capacity Building for Strengthening Health Management Information System (HMIS) and Orphans and Vulnerable Children Management Information System ( <b>OVC MIS</b> ) and DQAs.
47.	DEVINA	9/3/2015 to 30/3/15	Performed technical review of DENIVA <b>M&amp;EL Plan and indicators</b> , designed data collection tools and trained project implementers on M&E
48.	Uganda AIDS Commission	17/2/2015 to 15/3/15	Developed the <b>National HIV/AIDS M&amp;E Plan 2015/16—2019/20 and NSP Indicator Handbook</b>
49.	USAID/QED Group LLC, Monitoring Evaluation and Learning	13/1/2015 – 5/2/15	Conducted End of Term Evaluation using the <b>Client Exit Survey</b> methodology for the End of Project Evaluation for STAR East, STAR South West and STAR East Central and produced reports
50.	Iris Group, USA	5/1/2015 to 27/3/15	Conducted data quality assessments for Vital Voices Fellows in <b>Uganda, Kenya and Nigeria</b>
51.	UNAIDS Uganda	22/10/14 to 30/12/14	Designed and conducted the end of term evaluation for the UN Joint Program Support for HIV and AIDS (JUPSA) in Uganda; that entailed a nationwide consultative process

No.	Contractor's Name	Period	Brief Overview of Accomplishments
			across a multi-sectoral spectrum of stakeholders. Developed the January to December 2015 JUPSA work plan ( <b>including 5 Karamoja districts</b> ).
52.	USAID/QED Group LLC, Monitoring Evaluation and Learning	20/10/14 to 5/11/14	Conducted a <b>Cost Efficiency Assessment</b> Survey for 'Save a Mother Give a Life' project in 40 health facilities, 4 districts. Analysed data and produced data sets per facility, and indicator; developed a comprehensive field report.
53.	USAID/QED Group LLC, Monitoring Evaluation and Learning Contract	22/9/14 to 15/10/14	Designed and conducted M&E system assessment as well as <b>data quality assessments</b> for 8 USAID Feed the Future Projects implementing agriculture and climate change (CPM, EEA, Community Connector, Ag-Inputs, Harvest Plus, ABSP 2, ACDI/VOCA and Mercy Corps).
54.	USAID/QED Group LLC, Monitoring Evaluation and Learning Contract	1/9/14 to 15/9/14	Designed and implemented data quality assessments for <b>TB, Malaria and medical</b> procurement projects.
55.	Uganda AIDS Commission	4/8/14 to 10/10/14	Conducted the <b>midterm review</b> for the National HIV/AIDS Strategic Plan 2011/12-2014/15 and developed the National Strategic Plan 2015/16—2019/20; and assessed alignment to SDGs and NDP II.
56.	UN Women/MFPED	8/8/14 to 8/10/14	Developed the gender strategy and indicators for the Ministry of Finance, Planning and Economic Development contracted by UN Women
57.	USAID/EEA, Chemonics International	14/8/14 to 18/8/14	Facilitated a district leader's workshop for mainstreaming <b>Climate Change (CC)</b> into the District Development Plans using MFPED Output Budget Tool (OBT) and developed a detailed plan for rolling it out to district technical planning committees in USAID Uganda 19 CC focus districts.
58.	Uganda AIDS Commission	4/8/14 to 9/9/14	Designed and conducted <b>capacity assessment</b> for UAC Self Coordinating Entities and developed and capacity building strategy.
59.	Wellshare International	6/6/14 to 2/8/14	Designed and conducted a <b>baseline survey for the HIV/AIDS and Family Planning Integration Project</b> in Arua District.
60.	Data Care (U) Ltd	27/5/14 to 30/7/14	Developed <b>Board of Directors' Guidelines</b> , and board <b>handbook</b> ; and facilitated the board orientation session.
61.	USAID/EEA, Chemonics International	17/4/14 -30/5/14	Designed and conducted the <b>Climate Change Mapping and Inventory</b> survey in the four regions of Uganda. Performed qualitative and quantitative data analysis and report writing.
62.	USAID/QED Group LLC, Monitoring Evaluation and Learning Contract	15/1/14 - 14/2/14	Designed and implemented the health facility youth <b>data validation survey in 49 health facilities</b> across 10 districts; performed analysis; produced a <b>comprehensive validation report</b> .
63.	USAID/Monitoring and Evaluation of Emergency Plan Progress (MEEPP) Uganda	26/11/13 - 14/12/13	Designed materials and facilitated the <b>annual review and work plan development</b> workshop and staff retreat. Produced a comprehensive workshop/retreat report with lessons learnt and recommendations.
64.	USAID/EEA, Chemonics International	8/5/13 - 9/30/13	Designed and conducted baseline surveys on ' <b>climate change</b> data for adaptation use by government decision makers at the district level'; and 'stakeholder perceptions on the agricultural policy enabling environment'. Performed data analysis and produced reports for the baseline surveys.
65.	USAID/ MEEPP Uganda	7/8/13 - 8/30/13	Coordinated and worked with Medical, Public health and M&E Specialists to conduct <b>PMTCT</b> data quality assessments in <b>19 districts among 103 health facilities</b> . Compiled 19 comprehensive district reports and one aggregate national report.
66.	USAID/ MEEPP Uganda	2/25/13 - 5/13/13	Mentored and provided <b>technical support the PEPFAR implementing partners</b> in the use of the upgraded HIBRID partner reporting system. Conducted data analysis and generation of reports using aggregate country PEPFAR semi-annual 2013 report.

## July–Dec 2012: Chief of Party, Civil Society Fund, Monitoring and Evaluation Agent (CSFMEA)/Chemonics International

### Main Accomplishments

- Provided overall strategic leadership and project oversight; produced and submitted quality project deliverables on time. A performance appraisal was carried out and I excelled in my performance ratings.
- Served as primary project liaison to donors, CSF steering committee (governing body), sub-grantees and other key stakeholders

- Provided overall leadership and oversight of managers for M&E Technical; Finance, HR and Administration; Operations and Communication Departments
- Performed overall contract management and ensured compliance with all contractual requirements. Provided overall quality assurance for all project activities and deliverables. Performed final reviews of all project deliverables and submitted them to donors and CSF steering committee such as reports annual workplan/ budget and success stories.
- Provided technical support and oversight to the M&E technical staff for the development and management of the CSF web-based service delivery, child status index databases and Geographical Information System (GIS).
- Performed overall management of project finances (8 million dollars) and project other resources. This entailed; budget development and monitoring, making approvals for all financial transactions and project procurements; signing off checks, and reviewing project accountabilities to ensure adherence to USAID/Chemonics regulations.
- Ensured oversight of HR management functions including; recruitment, performance appraisal, remuneration, staff development, leave approval and tracking and ensuring adherence to the policy and procedures manual.
- Designed and managed HIV/AIDS (4) and (1) OVC special studies as well as a lot quality assurance sampling survey (LQAS) study in 10 districts and end of project assessments.
- Provided technical support and oversight to the designing and conducting sub-grantee capacity assessments, decentralized capacity building models and blended learning modules (Communication, Managing People Performance, Managing Change, M&E, and gender)
- Provided oversight and quality assurance for the CSF communication functions that include producing success stories, quarterly e-newsletters, documentaries and dissemination to stakeholders

#### **December 2010 – June 2012: Acting Chief of Party, CSFMEA /Chemonics International**

**Main Accomplishments:** Same as above

#### **July 2010 – to November 2010: Program Director/Deputy Chief of Party, CSFMEA /Chemonics International**

##### **Main Accomplishments**

- Deputized the Chief of Party in performing overall project oversight, coordination and management; including representing the project and Chemonics in strategic management meetings with CSF Steering Committee meetings; CSF management, funders; and meetings with line ministries.
- Managed CSF annual work plan and budget development processes and production of annual and quarterly reports and made presentations to the governing structures.
- Performed budget management functions including budget development, monitoring and control (2 million dollars annually)
- Provided technical oversight to M&E technical team, and direct supervision of 4 senior M&E personnel, the Communication Specialist and HR Manager and quality assurance for project outputs, products and deliverables.
- Performed personnel management functions including recruitment, selection, retention, appraisal and rewards
- Produced aggregate CSF joint monitoring and support supervision reports and made presentations to stakeholders
- Provided technical oversight for designing CSO and Local government M&E capacity strengthening interventions that included capacity assessments, trainings, technical support

supervision and one on one mentoring and coaching. Performed M&E for institutional and technical capacity strengthening interventions.

- Supervised the performance measurement plan (PMP) revisions and designing of data collection and reporting tools, as well as web-based and offline databases.
- Oversaw the design and implementation of end of project assessments for 98 sub-grantees.
- Provided leadership for technical reviews of sub grantee proposals, selection and award of contracts
- Provided oversight to office administration and procurement processes.

**February 2009 – to June 2010: Senior Monitoring and Evaluation Technical Advisor, CSFMEA/Chemonics Intl.**

**Main Accomplishments**

- Established CSF M&E system both at the central and CSF sub-grantee level (142 CSOs and 80 local governments) at a lower level. These organisations deliver a wide range of HIV/AIDS services including HIV counseling and testing, OVC services, HIV prevention through BCC, PMTCT, Palliative care, Paediatric AIDS care and laboratory infrastructure support. I designed OVC data collection tools for the project that were adopted as national OVC tools.
- Developed CSF MEA project performance management plan (PMP) for the project; involved the development of project key deliverables, outputs and indicators.
- Scaled up data use by designing data use indicators and tracking tools; training as well as providing technical support to CSOs for scaled up data use in programming.
- Conducted and monitored capacity strengthening for CSF funded CSOs and local governments including M&E training, regular technical support, progress report review and feedback, M&E mentoring and coaching
- Provided M&E technical input into CSF request for applications guidelines. Conducted technical reviews for proposals submitted for CSF funding and provided technical assistance for refining M&E frameworks, plans, activities and budgets
- Conducted field monitoring and support supervision for CSF funded CSOs.
- Designed and conducted end of project assessments for CSF sub grantees
- Represented the Chief of Party on various technical committees and meetings
- Performed personnel management tasks through providing technical input into scopes of work for all M&E positions, developing interview questions and scoring tools, conducting interviews and performance appraisals. Directly supervised the project M&E specialist, 2 program assistants and consultants
- Performed budget monitoring, approvals and control for M&E technical activities
- Performed quality assurance of consultancy work through designing clear scope of work and deliverables, support supervision and review of consultant reports

**April 2007 – January 2009: Monitoring & Evaluation Manager - International Center for Research on Women (ICRW) under CORE Initiative Project (USAID/Ministry of Gender Labor & Social Development bilateral mechanism)**

**Main Accomplishments**

- Strengthened CSO M&E and data quality assurance systems by developing standardized OVC/HIV BCC data collection, reporting, and monitoring tools for the programs and conducting data quality assessments
- Designed a 7-module comprehensive M&E training manual for CSOs.
- Provided M&E technical support to 48 MGLSD/CORE grantees, including facilitating M&E trainings.

- Performed technical and compliance reviews of project proposals and recommended viable one's funding to implement HIV prevention and OVC programs. Managed consultants' procurement processes, contracts and appraisals.
- Performed M&E budget development, monitoring and control (1 million dollars annually)
- Directly supervised the Data Manager, 2 M&E Officers and M&E consultants
- Supervised data aggregation, cleaning, verification and reporting functions of the program.
- Analyzed program data and disseminated information to stakeholders for use in program improvement.
- Conducted reviews of sub-grantee program reports and provided feedback.
- Managed and supervised the development and use of the electronic project Management Information System.
- Organized and streamlined the program data storage system; both hard and soft copies.
- Organized quarterly program review and planning meetings
- Provided regular M&E field monitoring visits to grantees as well as providing timely feedback for improved programming and data quality.

**September 2005 – March 2007: Monitoring & Evaluation Specialist, Social & Scientific Systems Inc, Monitoring and Evaluation of Emergency Plan Progress (MEEPP) Project**

**Main Accomplishments**

- Provided oversight and coordinated M&E activities of all 75 PEPFAR implementing partners in Uganda funded through USAID, CDC, DOD, State, NIH and Peace Corps. PEPFAR implemented programs in HIV prevention through BCC, PMTCT, VCT, ARV, Palliative care, injection safety, blood safety, institutional capacity building, policy development and system strengthening and OVC.
- Provided M&E technical support to PEPFAR partners including: training on specialized M&E fields such as; data quality assurance, data quality assessments, data management, target setting web-based reporting and PEPFAR partners on indicator definitions and reporting requirements.
- Managed on line data entry and output functions; and provided feedback for database upgrades.
- Conducted reviews of partner's performance monitoring plans (PMP) and provided feedback for improvement.
- Supported PEPFAR funded projects in ensuring that they attract M&E personnel with the right skills, sitting on interview panels and providing technical input to M&E staff scope of work.
- Performed M&E budget management: budget development, monitoring and control (1 million dollars annually) and directly supervised the M&E program assistants.
- Managed the coordination processes of the semi-annual and annual reporting processes of PEPFAR HIV/AIDS programs. This involves assessing project reporting readiness, ensuring accuracy of reported data and minimizing duplication of reported data.
- Ensured accurate reporting through data quality checks, data quality through data quality assessment and data validation data cleaning.
- Enhanced data use through dissemination of data to PEPFAR implementing partners, host country institutions and funding bodies for program improvement.
- Implemented special HIV/AIDS program reviews. Initiated performance data analysis through analysis of progress versus targets and analyzing factors behind the trends.
- Organized and facilitated coordination meetings for PEPFAR partners aimed at providing clarity on indicators, reporting requirements and providing reporting guidance.
- Developed timely and action-based reports on PEPFAR Uganda Country Report, data quality assessment and validation, quarterly progress reports and partner performance trends reports.

**June 2003 – August 2005: Monitoring & Evaluation Manager, Population Services International (PSI)/USAID**



## **Main Accomplishments**

- Managed and directed PSIU M&E department, and was a member of project management team.
- Designed and set up the PSIU M&E system.
- Designed outcome measurement research studies, produced reports, and disseminated results to stakeholders. These included: The Annual National Tracking Surveys and Knowledge and Attitude (KAP) studies for HIV, malaria, family planning, commercial sex workers, UPDF, the IDPs, HIV Basic Care, HIV in Workplace and Cross Generational Sex, and Event Impact Surveys.
- Reviewed and edited consultants' research reports and made approvals for payment.
- Oversaw and managed the implementation of Event Impact Surveys. Trained program implementers and researchers on implementation of Event Impact Surveys. Developed Event Impact Survey Manuals for VCT, PMTCT, Family Planning, High-risk and Blitz programs.
- Designed activity-monitoring tools for various VCT, PMTCT, family planning and BCC programs.
- Prepared consultant's bidding documents (request for proposals) for quantitative and qualitative population-based surveys.
- Managed consultant recruitment and selection processes and contracts.
- Directly supervised 2 M&E Officers and 4 research assistants.
- Together with the Director, managed PSI research and M&E budget (1 million dollars annually).
- Oversaw research activities such as facilitating questionnaire development and field research monitoring.
- Designed and oversaw baseline and follow-up studies for all PSIU programmes.
- Conducted data cleaning and analysis. This entailed creation of dummy tables, cross tabulations, factor analysis, reliability testing, and logistic regression using SPSS.
- Organized and facilitated research dissemination workshops and presentations.

## **March 2001-May 2004: National Programme Officer, Population Secretariat: Ministry of Finance, Planning, and Economic Development. Procurement Committee Secretary.**

## **Main Accomplishments**

- Managed and coordinated M&E functions of UNFPA and Government of Uganda population development projects
- Participated in revising the national poverty eradication action plan (PEAP) pillars and ensuring gender mainstreaming in all PEAP pillars
- Developed the M&E framework and manual for national population programme. This included drawing the institutional framework, standardizing the data collection and reporting tools.
- Coordinated the 2001 baseline survey for the 5<sup>th</sup> Country Population Programme
- Took lead in producing the annual *'State of Uganda Population Report'*, which highlighted salient population indicators and action so far taken or needed
- Organized and facilitated workshops/meetings for various stakeholders in population Programme countrywide.
- Coordinated household poverty-reduction advocacy programmes through advocating for a manageable family size.
- Produced quarterly and annual progress reports as well as work- plans and budgets
- Spearheaded annual population programme reviews and mid-term evaluations
- Organized stakeholder quarterly coordination and review meetings and bi-annual district coordination meetings
- Managed and supervised contracts for consultants
- As procurement committee secretary, handled the executing all procurement requirements of the organization that included pre-qualification of companies, tendering for bids, evaluation of bids and awarding tenders.



**August 2000- November 2000:** Consultant with International Finance Corporation (IFC) and Industrial Promotion Services (IPS) to conduct a project feasibility study for the rural electrification project in Bushenyi and Rukungiri districts together with NRECA International.

#### **Accomplishments**

- Worked as a Lead consultant on the research project; supervised and directed the field study.
- Conducted a survey on options for generation, transmission and distribution of power and recommended the most feasible and affordable project to IFC.
- Carried out a load survey to determine potential demand for electricity
- Designed and conducted a rural electrification feasibility study.
- Recruited, selected, trained and supervised research assistants.
- Carried out all logistical planning, budgeting and execution for field researchers
- Produced the study report for the rural electrification feasibility study and made recommendations for the project.

**July 2000:** Consultant with Surennet Consultancy firm contracted by Nature Uganda to conduct a study on the 'Feasibility of Ecotourism and other Potential Micro-Enterprises' in Misambwa Islands and areas adjacent to it, in Rakai district.

**1998-2000:** Teaching English in China

**1995-1997:** Assistant Programme Facilitator, Compassion International Uganda

#### **Accomplishments**

- Facilitated child development projects through providing support and acting as a liaison between children and their sponsors.
- Conducted needs assessment and recruitment of vulnerable children into the programme.
- Performed tracking of both sponsors' and children's communication (including translation where necessary).
- Followed up sponsor queries and recommending dispatch of communications between children and their sponsors.
- Performed management of project records
- Updated children's records and processed profiles for new cases

**1993-1994:** Research Assistant, Action for Development (ACFODE)

#### **Accomplishments**

- Conducted research on factors that affect girl-child education in Kasese district; Participated in the design and pretesting of various research instruments; Facilitated focus group discussions ; Conducted field data collection and analysis; Performed research report writing

#### **Other Consultancies/Researches**

- Designed and conducted a CSF special study on: Factors that influence knowledge levels among the population aged 15 – 54 years regarding identifying ways of preventing sexual transmission of HIV, rejecting major misconceptions and the correct steps for condom use in five selected districts (November 2012).
- Designed and conducted a CSF special study on: Effectiveness of OVC supported interventions towards improvement in food security and economic strengthening among OVC households in five selected districts of Uganda (November 2012).
- Designed and conducted a study on: Factors influencing data utilization among civil society organizations and its effects on data quality and programme effectiveness: A case study of Uganda civil society (2012).
- Designed and conducted end of project assessments for 142 CSF sub grantees implementing HIV prevention, care and OVC projects (2010-12).
- Developed M&E training modules and conducted M&E training for Ministry of Finance, Planning and Economic Development; Population Secretariat staff and other implementers of GOU/UNFPA 6<sup>th</sup> country programme (April 2008).

- Developed a UNAIDS five-year (2007-2012) M&E framework for Uganda Joint Programme for HIV/AIDS. The framework was divided into 5 major themes; HIV/AIDS Mainstreaming, HIV/AIDS prevention, HIV/AIDS treatment and Care and programme and activity M&E (Oct-December 2007).
- Evaluated AQUIRE/Engender Health Project and produced an evaluation report (November 2007).
- Conducted the following outcome measurement research studies for PSI (2003-2005): Knowledge and Attitude (KAP) studies for HIV, malaria, family planning, commercial sex workers, UPDF, the IDPs, HIV Basic Care, HIV in Workplace and Cross Generational Sex, and Event Impact Surveys.
- Developed a project proposal on 'The Community and Church Partnership to Minimize the Effect of HIV/AIDS on the East African Society', Uganda Lutheran World Foundation, (2000).
- Developed a proposal on 'Break the Silence' a domestic violence mitigation proposal for Office of the Vice President (2002).
- Researcher for Improved cooking stoves piloting project under Makerere University (2000).
- Team leader for the rural electrification project feasibility study in Bushenyi and Rukungiri districts (IPS/IFC) (2000).
- Conducted research on Factors Affecting Female Education in Kasese District for ACFODE (1996)

## PUBLICATIONS MADE

- **Julian K. Bagyendera (September 2018).** Using Evidence to Institutionalise and Scale Up Sustainable - Multi-Sectoral Climate Change Interventions at Central and Local Government Level – What worked well in Uganda, Africa Evidence Network, Pretoria, South Africa.
- **Julian K. Bagyendera (September 2017).** Using Evaluations as Learning and Program Improvement Tools – Lessons from Uganda. Global Evidence Network, Cape Town, South Africa.
- **Julian K. Bagyendera (May 2017).** Enhancing Information Use Among Service Providers through Appreciative and Participatory M&E System and Data Quality Assessments – A Case Study of Uganda. The Canadian Evaluation Society. Vancouver, Canada.
- **Julian K. Bagyendera (May 2017).** Simple Low-cost and Scalable Practices that Enhance the Use of Evaluations in Learning and Decision-Making in Uganda. Vancouver, Canada.
- **Julian K. Bagyendera (September 2016).** Evidence-Informed Decision-Making Landscape for Uganda. *The Africa Evidence Network (AEN)*. Pretoria, South Africa.
- **Julian K. Bagyendera (November 2015).** Is the Concept of Gender Mainstreaming 'Killing its Own Baby'? Reflections about Gender Mainstreaming in District and Project Plans. International Development Evaluation Association. Bangkok, Thailand.
- **Julian K. Bagyendera (November 2014).** Simple and Pocket Friendly Innovations Boosting Climate Change Adaptation Interventions. The 2<sup>nd</sup> International Conference on Evaluating Climate Change and Development, Washington DC. [climate-eval@climate-eval.org](mailto:climate-eval@climate-eval.org).
- **Julian K. Bagyendera (November 2014).** Strong linkages Between Climate Change Data Use and CCA Interventions. The 2<sup>nd</sup> International Conference on Evaluating Climate Change and Development, Washington DC. [climate-eval@climate-eval.org](mailto:climate-eval@climate-eval.org).
- **Yovani A. M. Lubaale, Proscovia M. Namuwenge, Julian K. Bagyendera and Jackson K. Mukonzo.** Low knowledge of human immunodeficiency virus (HIV) service sites and implications for testing among Ugandans. Journal of AIDS and HIV Research, Vol. 5(10), pp. 391-395, October, 2013. <http://www.academicjournals.org/JAHR>
- **Julian K. Bagyendera (September 2012).** Factors influencing data utilization among civil society organizations and its effects on data quality and program effectiveness: A case study of Uganda civil society fund sub-grantees. PHD Thesis, Atlantic International University, Hawaii.
- **Julian K. Bagyendera (July 2012).** Bridging Gender Gaps in Access to HIV/AIDS Services through Improved Data Use by Implementers. XIX International AIDS Conference Abstract Book. Washington DC, USA.
- **Julian K. Bagyendera (July 2012).** Harnessing SMS technology to Monitor and Scale up Access to Youth Friendly Services. XIX International AIDS Conference Abstract Book. Washington DC, USA.
- **Julian K. Bagyendera (July 2012).** Strengthening Civil Society Contribution to the National HIV/AIDS Response through a Harmonized and Coordinated Funding Mechanism. XIX International AIDS Conference. Abstract Book. Washington DC, USA.
- **Julian K. Bagyendera (June 2008).** "M&E Capacity building for CSOs through participatory data quality assessments for PEPFAR HIV implementers meeting". Uganda PEPFAR Implementer's Abstract Book. Kampala.

- Suleiman Barry and **Julian Bagyendera** (June 2006) “Determining Factors to Reporting Quality Data under the USG Emergency Plan (EP) in Uganda”. PEPFAR Implementer’s Abstract Book, Durban.
- **Julian K. Bagyendera** (2004). “Gender and Empowerment in Uganda, Opportunities and Challenges”. State of Uganda Population Report, Population Secretariat, Ministry of Finance Planning and Economic Development.
- **Julian K. Bagyendera** (2003). “The Influence of Poverty on Fertility”. State of Uganda Population Report, Population Secretariat, Ministry of Finance Planning and Economic Development, Kampala,
- **Julian K. Bagyendera** (2000). “The role of NGOs in promotion of education in Uganda” DENIVA, Kampala.
- **Julian K. Bagyendera** (2000). “The Changing Paradigm of Modern Enterprise Management”. Central South University of Science and Technology Management Journal, Changsha, Vol. 224.
- **Julian K. Bagyendera** (1999). “The Current Trend of Modern Enterprise Management” Master’s Thesis, Central South University of Science and Technology Management Journal, Changsha.
- **Julian K. Bagyendera** (1995). “The Role of NGOs in Assisting Vulnerable Children”. BA Dissertation, Makerere University, Kampala.

## COMPUTER SKILLS AND KNOWLEDGE

Stata, SPSS, Epi Info, GIS, SQL Server, Ms: Power point, Project Manager Access, Word and Excel.

## LANGUAGE PROFICIENCY

English (Excellent)	Runyankole/Rukiga/Rutoro (Excellent)
Chinese (Good)	Luganda (Good)
French (Fair)	Kinyarwanda/Lufumbira (good)
Swahili (Good)	

## LEADERSHIP AND MEMBERSHIP TO OTHER ORGANIZATIONS

1. Member of Uganda Evaluators Association (UEA)	2. Member, Uganda national HIV/AIDS M&E Technical Workg Group
3. <b>Board Member</b> African Evidence Network (AEN)	4. Member, Uganda OVC national Technical Working Group
5. Member, International Development Evaluation Association (IDEAS)	6. <b>Former Vice-Chair</b> Board of Directors (Reach One Touch One)
7. Member, Africa Evaluators Association (AFREA)	8. Leader, Marrieds’ Fellowship, St Francis Chapel, Makerere University, Pre-marital Councilor - <i>Volunteer</i> .
9. Member, European Evaluators Society (EES)	10. Leader, Mother’s Union, St Francis Chapel, Makerere University - <i>Volunteer</i> .
11. Member, International HIV/AIDS Society	12. Member, Uganda Management Forum
13. Member, South African M&E Association (SAMEA)	14. Member, Action for Development (ACFODE) – <i>focused on women emamception</i>
15. Member, International Climate Eval Association	16. Chair Person, Kikooko Foundation, Uganda (volunteer organizations)

## DUTIES HELD IN SCHOOL

Librarian (St. Francis Chapel Makerere University), Vice Chairperson Youth Fellowship (St. Francis Chapel Makerere University), Head Girl (Kigezi High School), Vice Chairperson Scripture Union (Kigezi High School), Head Monitor (Kinyasano Primary School).

## REFEREES

1. Katie Stauss Founder Scintilla Consult and Former Project Director Chemonics International Relationship: Former Supervisor. Tel. 1-3017932352, Email: Katiestauss@gmail.com, kstauss@scintillaconsult.com	3. Prof. Narathius Asingwiire, Executive Director, Social Economic Data Center/Senior lecturer Makerere University Email: <a href="mailto:asingwiire@yahoo.com">asingwiire@yahoo.com</a> Tel. 256-757460250
2. Andrea Hernandez Tobar Country Director, iDE, Ethiopia Relationship: Former colleague. Tel: (509) 3702-8820, Email: <a href="mailto:ahntobar@gmail.com">ahntobar@gmail.com</a>	