Terminal Evaluation of three UNEP/ IETC Projects on Waste Management:

- Global Waste Management Outlook
- Secretariat Support to the Global Partnership on Waste Management
- Delivering Integrated Waste Solutions at the National and Local Level
(2015-2019)

Evaluation Office of the United Nations Environment Programme

Distributed: May 2021

Photos Credits:
Front cover: Recycling and waste separation, Myanmar

This report has been prepared by independent consultant evaluators and is a product of the Evaluation Office of UNEP. The findings and conclusions expressed herein do not necessarily reflect the views of Member States or the UNEP Senior Management.

For further information on this report, please contact:

Evaluation Office of UNEP
P. O. Box 30552-00100 GPO
Nairobi Kenya
Tel: (254-20) 762 3389
Email: unenvironment-evaluation-director@un.org
Website: https://www.unenvironment.org/about-un-environment/evaluation

531.1 Global Waste Management Outlook (PIMS ID 1875)
531.2 Secretariat Support to the Global Partnership on Waste Management (PIMS ID 1926)
534.1 Delivering Integrated Waste Solutions at the National and Local Level (PIMS ID 1884)

May 2021

ACKNOWLEDGEMENTS

This Terminal Evaluation was prepared for UNEP by Ms. Sandra Molenkamp and Ms. Suman Lederer, as independent consultants.

The evaluators would like to express their gratitude to all persons who contributed to this evaluation and to all persons interviewed for taking time to provide their valuable inputs, as listed in Annex III.

The evaluation team would like to thank the IETC project team and former IETC project managers, and in particular Mr Daniel Ternald as IETC's focal point for this evaluation, for their contribution and collaboration throughout the evaluation process. Sincere appreciation is also expressed to the respondents of the questionnaires; their inputs and feedback are highly appreciated and were very valuable for this evaluation.

Special acknowledgements to Evaluation Manager Natalia Acosta, as well as Evaluation Programme Assistant Mela Shah for their openness, continuous support, and feedback.

The evaluation consultants hope that the findings, conclusions, and recommendations will contribute to the successful finalisation of IETC's current project, formulation of a next phase and to the continuous improvement of similar projects in other countries and regions.

BRIEF CONSULTANT BIOGRAPHY

Ms. Sandra Molenkamp worked for 18 years as project manager of large-scale international projects on (hazardous) waste issues at environmental organizations in the Netherlands and Switzerland. The last two years she worked as consultant for organizations working on chemical waste. She has also been conducting evaluations of international POPs and (chemical) waste projects for UNEP and other organizations.

Ms. Suman Lederer is an independent evaluation consultant. She has led and participated in several Thematic, Country and Project evaluations, with a focus on the evaluation of hazardous waste, POPs, environment, as well as private-sector development projects, in Africa, Asia, the Caucasus, Central Asia, South-Pacific, and Southeast Europe. Further, she has work experience in the private sector and academia in Central and Western Europe.

Evaluation team
Sandra Molenkamp – Principal Evaluator
Suman Lederer– Evaluation Specialist

Evaluation Office of UNEP
Natalia Acosta – Evaluation Manager
Mela Shah – Evaluation Programme Assistant

ABOUT THE EVALUATION

Joint Evaluation: No

Report Language(s): English

Evaluation Type: Terminal Evaluation

Brief Description: This report is the Terminal Evaluation of the following three IETC projects on waste management implemented between April 2015 and March 2019: (i) "Global Waste Management Outlook" (project 531.2), (ii) "Secretariat Support to the Global Partnership on Waste Management" (project 531.2), and (iii) "Delivering Integrated Waste Solutions at the National and Local Levels" (project 534.1). The overall objective of the first project (project 531.1) was to provide an authoritative overview of the state of waste management around the globe and present an analysis of policy instruments - addressing the different stages of the waste hierarchy - and financing models for waste management. The second project (project 531.2) aimed at increasing international cooperation on waste management to support developing countries to improve their unsound management of wastes through the GPWM knowledge platform. The overall objective of the third project (project 534.1) was to create enabling conditions including behavioural changes so that waste is treated and disposed of in an environmentally sound way. The evaluation sought to assess project performance (in terms of relevance, effectiveness, and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and its project partners.

Key words: Integrated waste management; Waste Management Outlooks; waste management strategies; waste management university curricula; chemicals; hazardous waste; mercury; e-waste; IETC; Small Island Developing States; Climate Change; Mountain Regions

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

AIT	Asian Institute of Technology
ABRELPE	Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais
ASEAN	Association of Southeast Asian Nations
BCRC	Basel Convention Regional Centre
BRS	Basel, Rotterdam Stockholm Convention Secretariat
CCET	IGES Centre Collaborating with UNEP on Environmental Technologies
CEDARE	Centre for Environment and Development for the Arab Region and Europe
CSIR	Council of Scientific & Industrial Research
CSO	Civil Society Organization
EA	Expected Accomplishment
GEC	Global Environment Centre Foundation
GPWM	Global Partnership on Waste Management
GWMO	Global Waste Management Outlook
ICSD	Interstate Commission on Sustainable Development
IETC	International Environmental Technology Centre
IGES	Institute for Global Environmental Strategies
ISWA	International Solid Waste Association
LAC	Latin America and the Caribbean
MEA	Multilateral Environmental Agreement
MTS	(UNEP's) Medium-term Strategy
PIMS	(UNEP's) Programme Information and Management System
PoW	(UNEP's) Programme of Work
ProDoc	Project Document
RO	(UNEP) Regional Office
RWMO	Regional Waste Management Outlook
SC	Steering Committee
SDGs	Sustainable Development Goals
SIDS	Small Islands Developing States
TE	Terminal Evaluation
ToC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UNEA	United Nation Environment Assembly
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization

PROJECT IDENTIFICATION

Table 1: Project Identification Table 531.1

UNEP PIMS ID:	1875	Global Waste Management Outlook	
Implementing Partners	The International Solid Waste Association (ISWA); Asian Institute of Technology (AIT); Centre for Environment and Development for the Arab Region and Europe (CEDARE); Council for Scientific and Industrial Research (CSIR); Global Environment Centre Foundation (GEC); GRID-Arendal (GRID-A); Zoï Environment Network.		
Relevant SDG(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.4, 12.5, 14.1		
Sub-programme:	Chemicals and Waste	Expected Accomplishment(s):	EA 5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs
UNEP approval date:	2 April 2015	Programme of Work Output(s):	2014/15 & 2016/17 531: Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management
Expected start date:	March 2015	Actual start date:	2 April 2015
Planned completion date:	December 2018	Actual operational completion date:	31 December 2018
Planned project budget at approval:	USD 2,333,297	Actual total expenditures reported as of September 2020:	USD 1,630,240
Planned Environment Fund allocation:	USD 371,440	Actual Environment Fund expenditures reported as of September 2020:	USD 294,134

Planned Extra-Budgetary Financing:	USD 1,961,857	Secured Extra-Budgetary Financing:	USD 2,095,323
		Actual Extra-Budgetary Financing expenditures reported as of September2020:	USD 1,336,106
First disbursement:	N/A	Planned date of financial closure:	December 2019
No. of formal project revisions:	None	Date of last approved project revision:	
No. of Steering Committee meetings:	3	Date of last/next Steering Committee meeting:	Last: March 2015 / Next: N/A
Mid-term Review/ Evaluation *(planned date):*	December 2016	Mid-term Review/ Evaluation (actual date):	N/A
Terminal Evaluation *(planned date):*	December 2018	Terminal Evaluation (actual date):	January – November 2020
Coverage - Country(ies):	Global	Coverage - Region(s):	Global
Dates of previous project phases:	N/A	Status of future project phases:	Current PoW project: 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support

Table 2: Project Identification Table 531.2

UNEP PIMS ID:	1926	Secretariat Support to the Global Partnership on Waste Management	
Implementing Partners	Asian Institute for Technology (AIT), International Solid Waste Association (ISWA) and Basel Convention Regional Centres (BCRCs)		
Relevant SDG(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.4, 12.5, 14.1		
Sub-programme:	Chemicals and Waste	Expected Accomplishment(s):	EA 5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs
UNEP approval date:	15 September 2015	Programme of Work Output(s):	2014/15 & 2016/17 – 531: Scientific

			assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management
Expected start date:	September 2015	Actual start date:	15 September 2015
Planned completion date:	December 2018	Actual operational completion date:	31 December 2018
Planned project budget at approval:	USD 5,496,041	Actual total expenditures reported as of September 2020:	USD 1,110, 924
Planned Environment Fund allocation:	USD 250,000	Actual Environment Fund expenditures reported as of September 2020:	USD 18,606
Planned Extra-Budgetary Financing:	USD 5,256,041	Secured Extra-Budgetary Financing:	USD 3,328,572
		Actual Extra-Budgetary Financing expenditures reported as of September 2020:	USD 1,092,318
First disbursement:	N/A	Planned date of financial closure:	December 2019
No. of formal project revisions:	0	Date of last approved project revision:	
No. of Steering Committee meetings:	2	Date of last/next Steering Committee meeting:	Last: Dec 17, 2017 / Next: N/A
Mid-term Review/ Evaluation *(planned date):*	January 2017	Mid-term Review/ Evaluation (actual date):	N/A
Terminal Evaluation *(planned date):*	November 2018	Terminal Evaluation (actual date):	January – November 2020
Coverage - Country(ies):	Global	Coverage - Region(s):	Global
Dates of previous project phases:	N/A	Status of future project phases:	Current PoW project: 521.1 Promotion and Delivery of Environmentally Sound Waste Management

			Technologies and Methods and in-Country Technical and Advisory Support

Table 3: Project Identification Table 534.1

UNEP PIMS ID:	1884	Delivering Integrated Waste Solutions at the National and Local Levels	
Implementing Partners	Asian Institute for Technology (AIT), Basel Convention Regional Centre Southeast Asia (BCRC SEA); Council for Scientific and Industrial Research (CSIR), Institute for Global Environmental Strategies (IGES), GEC (Global Environment Centre Foundation), International Solid Waste Association (ISWA), Zoï Environment Network, Kyoto University, TERI University, Tongji University.		
Relevant SDG(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.4, 12.5, 14.1		
Sub-programme:	Chemicals and waste	Expected Accomplishment(s):	Primary EA: 5C - Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs Secondary EA: 5A – Countries increasingly have the necessary institutional capacity and policy instruments to manage chemicals and waste soundly including the implementation of related provisions in the MEAs
UNEP approval date:	29 April 2015	Programme of Work Output(s):	2018/19-534: Support to strengthen cooperation, coordination and partnerships across the globe, including within the United Nations system, and

			enhance linkages and synergies among major air quality programmes and stakeholders. 2016/17-534: Technical services demonstrating and implementing sound waste management techniques delivered regionally and nationally with strategic partners. 2014/15-534: Technical services demonstrating and implementing sound waste management techniques delivered regionally and nationally with strategic partners.
Expected start date:	April 2015	Actual start date:	29 April 2015
Planned completion date:	March 2019	Actual operational completion date:	31 March 2019
Planned project budget at approval:	USD 10,189,439	Actual total expenditures reported as of September 2020:	USD 7,721,587
Planned Environment Fund allocation:	USD 250,000	Actual Environment Fund expenditures reported as of September 2020:	USD 243,833
Planned Extra-Budgetary Financing:	USD 9,939,439	Secured Extra-Budgetary Financing:	USD 8,717,475
		Actual Extra-Budgetary Financing expenditures reported as of September 2020:	USD 7,477,754
First disbursement:	N/A	Planned date of financial closure:	March 2020
No. of formal project revisions:	None	Date of last approved project revision:	N/A
No. of Steering Committee meetings:	N/A	Date of last/next Steering Committee meeting:	Last: Oct 2017 / Next: None
Mid-term Review/ Evaluation *(planned date):*	December 2016	Mid-term Review/ Evaluation (actual date):	None
Terminal Evaluation *(planned date):*	July 2018	Terminal Evaluation (actual date):	January – November 2020
Coverage - Country(ies):	Bhutan,	Coverage - Region(s):	Africa, Asia Pacific

	Cambodia, Honduras, India, Kyrgyzstan, Nepal, Malaysia, Maldives, Myanmar, Mongolia, Saint Lucia, Tajikistan, Tanzania, Thailand, Vietnam		(including Central and West Asia), Latin America & Caribbean, SIDS and Mountain Countries
Dates of previous project phases:	N/A	Status of future project phases:	Current PoW project: 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support

EXECUTIVE SUMMARY

1. This report presents the overall results of the Terminal Evaluation (TE) of the following three global projects related to waste management, implemented by the International Environmental Technology Centre (IETC) of the United Nations Environment Programme (UNEP):

Project number	Name of project	PIMS ID	Planned budget in ProDoc (USD)	Planned project duration in months	Actual Start date	Actual End date
531.1	Global Waste Management Outlook (GWMO)	1875	2,333,297	48	April 2015	December 2018
531.2	Secretariat Support to the Global Partnership on Waste Management (GPWM)	1926	5,496,041	40	September 2015	December 2018
534.1	Delivering Integrated Waste Solutions at the National and Local Levels	1884	10,189,439	48	April 2015	March 2019

2. The main donor for all three projects was the Government of Japan, but other donors also contributed to the projects, including the Government of Norway, Sweden's government agency for development cooperation (SIDA) and the International Climate Initiative (IKI).

3. The main goal of project 531.1 was to provide scientific global and regional assessments on the state of waste management. Project 531.2 focused on supporting the Secretariat functions of the Global Partnership on Waste Management (GPWM). The last of the three projects, project 534.1, concentrated on enhancing waste management systems by strengthening national and local capacities on the use of the holistic waste hierarchy approach.

4. The Implementing Agency for all the three projects was the International Environmental Technology Centre (IETC).The projects were supported by several partner organizations, such as the Asian Institute of Technology (AIT), the Centre for Environment and Development for the Arab Region and Europe (CEDARE), the Council of Scientific & Industrial Research (CSIR), the Global Environment Centre Foundation (GEC), GRID-Arendal, the Institute for Global Environmental Strategies (IGES), the International Solid Waste Association (ISWA), Zoï Network, as well as the United Nations Environment Programme Regional Offices in Latin America, Central Asia, West Asia, Asia and the Pacific, and Africa.

5. All three projects contained Theory of Change diagrams in their project documents. At the start of the evaluation, it was decided to prepare one reconstructed and combined ToC diagram, as it was clear that the projects were interlinked, aimed towards the same impacts, all were related to the same Programmes of Work (PoW) and to closely connected Expected Accomplishments of the United Nations Environment Programme. The projects were assessed based on the outputs and outcomes as defined in the reconstructed combined Theory of Change.

6. The evaluation had two primary purposes: (i) provide evidence of results to meet accountability requirements, and (ii) promote operational improvement, learning, and knowledge sharing through results and lessons learned among the United Nations Environment Programme and its project partners. Therefore, the evaluation identified lessons of operational relevance for future project formulation and implementation of other similar initiatives and follow-on projects.

7. The overall approach adopted by the evaluation was in line with the scope as set out within the Terminal Evaluation's Terms of Reference that, in turn, uses established evaluation criteria grouped within nine categories. In the report, the evaluation team provides ratings for each evaluation criteria, together with a brief justification cross-referenced to the findings in the report. The summary of project findings and ratings can be found in chapter VI, section B of this report.

8. The main intended users of the evaluation findings are the United Nations Environment Programme, the International Environmental Technology Centre, the United Nations Environment Programme Regional Offices, implementing project partners, and other stakeholders in the field of waste management.

9. The overall rating for the projects' performance was 'Moderately Satisfactory'. The main projects' strengths were related to the availability of outputs within the criterion **Effectiveness**, to **Strategic Relevance** and to **Factors affecting Performance**, specifically **Stakeholders' participation and cooperation**. Findings show that the projects were fully in line with national priorities as well as donor strategic priorities, existing interventions, and with regional and sub-regional priorities. Additionally, the cooperation of the International Environmental Technology Centre with the project implementation partners and regional organizations worked well; the partners had specific expertise and knowledge, and well-established networks in the countries and regions, which contributed to four of the outputs being fully delivered and two of the outputs being partially delivered. This active and broad cooperation of all involved stakeholders resulted in the efficient and timely delivery of activities.

10. The services and knowledge products developed by the International Environmental Technology Centre and its project partners – specifically the Global Waste Management Outlook, the seven Regional Waste Management Outlooks and the three university curricula – have contributed to a gain in knowledge and awareness raising of all project stakeholders and beneficiaries.

11. One of the projects' weaknesses was its **Monitoring and Reporting**. Overall, project monitoring, reporting and information management related to all three projects were weak. The Monitoring and Evaluation plans within the project documents were very concise and not fully implemented. Limited qualitative information was provided in the reports and the Programme Information and Management System of the United Nations Environment Programme, and there was no systematic way to measure results. Some of the information was incomplete, inaccurate and/or contradictory to information received via interviews and questionnaires. Important changes to the projects, most specifically the decision to not formally establish the Global Partnership on Waste Management Secretariat, were not officially recorded. Weak information and knowledge management, as well as weak monitoring and lack of documentation of major changes in the project and budget, can, in the long run, lead to a loss in institutional memory and less effective delivery of outputs.

12. Based on the assessment of the evaluation criteria and main findings, the evaluation **conclusions** are as follows:

    i. Through project 531.1, the International Environmental Technology Centre has contributed to the generation of high-quality reports on the state of waste management at global and regional level. The Global Waste Management Outlooks and seven Regional Waste Management Outlooks successfully developed under the project are actively used by governments, civil society, academia and other organizations as reference, including for the development of waste management strategies and university curricula (under project 534.1).
    ii. The International Environmental Technology Centre's constructive cooperation approach with key implementing project partners on waste management has been conducive for the effective delivery of project outputs, including an increase of knowledge and awareness on waste management in project countries.
    iii. University curricula on waste management have been prepared in three regions, providing a unique opportunity to approach waste management with a regional focus in a holistic and integrated way.
    iv. Most of the country and city waste management strategies have not been fully implemented yet, although there are some very good examples of strategies developed that have been (partly) implemented. Changing government priorities and political factors have hindered the approval and implementation of such strategies. Project countries are not yet able to apply the waste hierarchy approach which would lead to environmentally sound waste management.
    v. Although not formally setting up the Global Partnership on Waste Management Secretariat did not have any direct adverse effects on the performance of project 531.2, nor on any of the other projects, it is unclear if it had any other effects. The GPWM is still existing as a partnership, but it does not execute any activities as a partnership; cooperation between organizations of the partnership is done on an ad-hoc basis.
    vi. Aspects on human rights, gender and vulnerable groups are important in waste management; women and other vulnerable groups often work in the informal waste sector. Gender and vulnerable groups have been considered in some of the output reports and studies but were not addressed comprehensively throughout all project activities.
    vii. Information and knowledge management at the International Environmental Technology Centre, as well as monitoring and reporting processes for the projects were weak. This hampered the adequate documentation of changes in implementation, lessons learned and the International Environmental Technology Centre's institutional memory.
    viii. Financial management adhered to United Nations Environment Programme procedures and formats. However, all three projects underspent, and no measures were taken to address this. Several important decisions taken at projects' implementation were not reflected in project and budget revisions.

13. Based on the ratings and the input provided by the stakeholders who were interviewed during the evaluation, the evaluation identified the following seven **lessons learned**:

i. Selecting implementing partners with substantive expertise, networks and interest on waste management was crucial for the successful achievement of expected projects' outputs.
ii. Clear communication to stakeholders is needed to provide realistic expectations of what can happen after the project finishes (by preparing for example exit/follow-up plans for actual implementation of waste management strategies).
iii. Continued strengthening of local capacities and continued awareness raising is vital for effective and sustainable development (and implementation) of the waste management strategies.
iv. Knowledge and information management need to be set up within the International Environmental Technology Centre / United Nations Environment Programme in such a way that it provides adequate information on why and how (and is more specific on the 'what'), including what were the main results (and how these were measured), and in a way that the institutional memory is not affected by a decrease in staff or staff turnover.
v. Comprehensive financial information is important to measure the efficiency of the project and better understand how resources were used across activities and outputs.
vi. A more systematic approach to communication, awareness raising, and exchange of experiences has the potential of increasing the visibility of the project (and its activities and reports such as the Global Waste Management Outlooks).
vii. It is important to address gender comprehensively within all project activities related to waste management; as the Gender and Waste Nexus Report with experiences from Bhutan, Mongolia and Nepal that was developed within project 534.1 has shown, women and minority groups play an important role in waste management, specifically in the informal waste sector.

14. Similarly, the evaluation presents the following nine **recommendations**:

i. The United Nations Environment Programme / International Environmental Technology Centre to follow-up with all countries (and partner organizations) that developed waste management strategies and confirm which strategies have been officially adopted, which are being implemented, and what are further needs for support.
ii. The United Nations Environment Programme / International Environmental Technology Centre to prepare exit strategies/follow-up strategies in their future projects, including the 521.1 project. These should be done with countries, universities, and partner institutions to clarify expectations, responsibilities, and ownership for after the projects ends (including discussing and clarifying future funding possibilities).
iii. The United Nations Environment Programme / International Environmental Technology Centre to improve monitoring and reporting, and information and knowledge management procedures, with a view of ensuring that information is provided not only on what has been achieved (results), but also on how these were achieved and measured (process), and that these are not affected by staff turnover.

iv. International Environmental Technology Centre to prepare a methodical communication strategy for current and future projects (for example, those projects related to the dissemination of flagship publications or strategies) and include a separate budget for the communication activities.

v. The United Nations Environment Programme / International Environmental Technology Centre to explore stronger and more systematic partnerships with, and involvement of, regional organizations (for example ASEAN and development banks) in project implementation and follow-up after project completion.

vi. The United Nations Environment Programme / International Environmental Technology Centre should systematically integrate gender as an important aspect in all ongoing and future waste management projects and consider preparing a gender and waste nexus or similar report for other countries as well.

vii. The United Nations Environment Programme / International Environmental Technology Centre should consider documenting co-finance (cash and in-kind) of project activities at national and local level. This may help to raise the interest in and validity of these projects, as well as visibility of partner contributions.

viii. The United Nations Environment Programme / International Environmental Technology Centre should consider working on a global level to homogenize the definitions of wastes, and support countries, via projects, in the collection of relevant waste data and set-up of waste databases.

ix. The United Nations Environment Programme should ensure that due process is followed in documenting, reporting on and approving major changes and revisions to projects. If these programmatic revisions have financial implications, programmatic and financial modifications should be developed side by side, in accordance with the Programme Manual of the United Nations Environment Programme.

I. INTRODUCTION

15. This report presents the results of the Terminal Evaluation (TE) of three global projects related to waste management, implemented by the International Environmental Technology Centre (IETC) of the United Nations Environment Programme (UNEP), under its Chemicals and Waste Sub-programme (see table below). The TE was carried out from January – June 2020 and October – December 2020. The main intended users of the findings of the TE are UNEP, IETC, the UNEP Regional Offices (ROs), implementing project partners, and other stakeholders in the field of waste management.

Table 4: Overview of the three projects under evaluation

Project number	Name of project	PIMS ID	Planned budget in ProDoc (USD)	Planned project duration in months	Actual Start date	Actual End date
531.1	Global Waste Management Outlook (GWMO)	1875	2,333,297	48	April 2015	December 2018
531.2	Secretariat Support to the Global Partnership on Waste Management (GPWM)	1926	5,496,041	40	September 2015	December 2018
534.1	Delivering Integrated Waste Solutions at the National and Local Levels	1884	10,189,439	48	April 2015	March 2019

16. **Project 531.1 Global Waste Management Outlook** (from here on referred to as project 531.1) aimed at producing scientific global and regional assessments on the state of waste management. It had been completed at the time of the TE, and all the activities carried out under the project have been considered in the TE.

17. **Project 531.2 Secretariat Support to the Global Partnership on Waste Management** (from now on referred to as project 531.2) centered on supporting the Secretariat functions of the Global Partnership on Waste Management (GPWM). At the start of the TE, the project had been operationally closed; most of the activities foreseen in the project had been completed. IETC informed the evaluation team that during project implementation in 2016 they decided to not set up and maintain the formal GPWM Secretariat, which was one of the main activities of the project. Instead, IETC, together with the International Solid Waste Association (ISWA) and other project partners, continued to provide the services and deliver the knowledge products which were foreseen to be delivered by the GPWM Secretariat. There was no formal project revision related to the decision to not establish a formal GPWM Secretariat. For a more detailed discussion of the GPWM Secretariat, see chapter V - Evaluation Findings, section D - Effectiveness.

18. **Project 534.1 Delivering integrated waste solutions at the national and local level** (from here on referred to as project 534.1) focused on enhancing waste management systems by strengthening national and local capacities on the use of the holistic waste hierarchy approach. During the evaluation process, the TE team learnt that

some parts of this project had not been completed and were integrated into a new UNEP project, **521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support** (referred to as project 521.1), which had already started at the time of this TE (the project document (ProDoc) had been signed on 28 May 2018) and which is currently due to end in December 2021. However, a project extension until June 2022 is envisaged for this project.

19. The Expected Accomplishment (EA) of projects 531.1 and 531.2 was as follows: "Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related Multilateral Environmental Agreements (MEAs)." Project 534.1 makes reference to this EA as well in chapter one of the ProDoc. The EA of project 534.1 as mentioned in the log frame is different, but closely connected to this EA and was as follows: "Countries increasingly have the necessary institutional capacity and policy instruments to manage chemicals and waste soundly including the implementation of related provisions in the MEAs". Based on the response by the project team, as well as the activities carried out, it is clear that project 534.1 contributes to both EAs despite the discrepancies in the ProDoc.

20. Project 531.1 and 531.2 relate specifically to Programme of Work (PoW) output 531: "Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management." Project 534.1 is connected to PoW output 534.1: "Support to strengthen cooperation, coordination and partnerships across the globe, including within the United Nations system, and enhance linkages and synergies among major air quality programmes and stakeholders."

21. Although all three projects were foreseen to have - and budgeted for - mid-term reviews, these mid-term reviews did not take place. IETC could not confirm the reasons why the mid-term reviews did not take place.

22. The main implementing project partners of IETC, besides the UNEP ROs were ISWA, the Asia Foundation, the Asian Institute of Technology (AIT), the Centre for Environment and Development for the Arab Region and Europe (CEDARE), the Council of Scientific and Industrial Research (CSIR), the Global Environment Centre foundation (GEC), GRID-Arendal, Local Governments for Sustainability (ICLEI) South Asia, the Institute for Global Environmental Strategies (IGES), World Wildlife Fund (WWF) Bhutan and Zoï Environment Network. More detailed information on the three projects, the project partners and other stakeholders is provided in chapter III - The Projects.

23. In line with the UNEP Evaluation Policy and the UNEP Manual, and according to the Terms of Reference (ToR) for the TE, attached in Annex VII, the TE is undertaken at completion of the projects to assess project performance (in terms of relevance, effectiveness and efficiency), and determine Outcomes and Impacts (actual and potential) stemming from the project, including their sustainability. The two main purposes of the evaluation are i) to provide evidence of results to meet accountability

requirements; and ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and its project partners.

24. Further, the TE provides conclusions about the implementation of the three projects and identifies lessons of operational relevance for future project formulation and implementation for the UNEP Chemicals and Waste Sub-Programme.

25. The TE also assessed the synergies between the three projects. The projects were recognised by the project team to be closely interlinked, and all relate to the same UNEP Programmes of Work (PoW) and to closely connected EAs. It was expected that projects 531.1 and 531.2 (on GWMO and GPWM Secretariat) would directly feed into project 534.1 (waste management strategies). Each ProDoc refers to the other two projects and mentions that the three projects will cooperate strongly during implementation.

II. EVALUATION METHODS

26. The evaluation was carried out by a team of two independent evaluation consultants, Ms. Sandra Molenkamp – Principal Evaluator, and Ms. Suman Lederer – Evaluation Specialist, under the guidance, supervision and in discussion with the UNEP Evaluation Manager, Ms. Natalia Acosta. The UNEP Evaluation Manager, as well as IETC, were kept informed throughout the evaluation process to ensure feedback, enhance data collection, and ensure triangulation of collected data.

Evaluation criteria and key questions

27. The TE followed the ToR for the TE. An evaluation framework was prepared during the inception phase of the evaluation which included the evaluation criteria, the key questions, as well as detailed questions to assess the projects' performance based on the evaluation criteria (see Annex I). In line with the ToR for the TE, the following evaluation criteria and corresponding key questions were taken into consideration in the TE:

A. Strategic relevance: To what extent were the project objectives relevant and suited to the priorities, policies and strategies of the implementing agencies, donors and target groups?

B. Quality of project design: How adequate was the project design to achieve the project Outputs, Outcomes and Objectives?

C. Nature of external content: To what extent did the projects consider (unexpected) external factors which had an effect on project implementation?

D. Effectiveness: To what extent did the projects achieve the expected Outcomes and Outputs? What is the likelihood of expected positive impacts to be realized?

E. Financial Management: How conducive was the financial management for the achievement of project Outputs and Outcomes?

F. Efficiency: To what extent and how were cost-effectiveness and timeliness considered during project implementation? How did these factors affect project performance?

G. Monitoring and Reporting: How were monitoring and reporting used to support, adapt and improve project implementation?

H. Sustainability: How do socio-political, financial and institutional factors affect the probability of project Outcomes being maintained and developed after the projects end?

I. Factors and processes affecting project performance: How and to what extent did certain factors – preparation and readiness, quality of project management and supervision, stakeholder participation and cooperation, responsiveness to human rights and gender, and environmental and social safeguards - affect project performance?

28. In this report, the evaluation team provides ratings for the above-mentioned nine evaluation criteria, together with a brief justification cross-referenced to the findings in the report, according to the following 6-point scale: Highly Satisfactory (HS);

Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability and Impact are rated on a 'likelihood scale' from Highly Likely (HL) down to Highly Unlikely (HU).

Data collection and analysis

29. The phases of the evaluation were as follows:

- Inception phase: This included documentation and desk review, development of the evaluation framework, and interviews with IETC and some of the main implementation partners;
- Main evaluation phase: During this phase, the evaluation team gathered and reviewed additional documents, as well as collected and analysed data (via interviews and questionnaires);
- Presentation of the preliminary findings of the TE to UNEP and IETC on 15 October 2020;
- Report writing;
- Dissemination, feedback, and finalisation of the TE report.

30. A common Theory of Change (ToC) was constructed by the evaluation team for all the three projects together, in discussion with the UNEP Evaluation Manager, and was validated by IETC. This reconstructed ToC was based on the outputs and outcomes as mentioned in the ProDocs. The evaluation team evaluated effectiveness and efficiency (by looking at sequencing and coherence of project elements) based on the outputs and outcomes as defined in the reconstructed ToC. Further information on the ToC is provided in chapter IV – Theory of Change at Evaluation. The evaluation team developed general and stakeholder-specific questions based on the ToR, evaluation framework, key questions, the ToC, and the discussions with the Evaluation Manager and IETC.

31. An initial list of stakeholders was provided by the project team for evaluation data collection purposes. An analysis of all stakeholders was prepared in the inception phase and included in the Inception Report. The list of stakeholders was updated by the evaluation team during both the inception and main phase of the evaluation.

32. The TE adopted the following evaluation methods:

- A desk review of available project documentation, including the ProDocs, the ToR for the TE, half-yearly Programme Information and Management System (PIMS) reports, output reports (such as the GWMO and the Regional Waste Management Outlooks (RWMOs)), financial reports, all available Project Cooperation Agreements (PCAs), and Small-Scale Funding Agreements, documents and technical reports produced within the framework of the project, and communication materials. A detailed list of reviewed documents is provided in Annex II;
- A review of UNEP strategic documents, such as the Programme of Work (PoW), Medium-term Strategy (MTS), relevant United Nations Environment Assembly (UNEA) General Council Decisions and the Programme Manual;
- Semi-structured interviews using interview protocols with key project stakeholders and partners via web-based tools, inter alia Skype and Microsoft Team, ensuring project and geographical coverage. In total 40 stakeholders were

interviewed by the evaluation team (14 female and 26 male). Some of the interviewees provided information on more than one project, depending on their involvement in the project(s). The interviewees were informed by the evaluation team about confidentiality and anonymity of their responses at the start of each interview. A list of people consulted is provided in Annex III;

- Administration of three different questionnaires to reach as many stakeholders as possible, namely: i) a questionnaire for the (co)authors and other contributors of the GWMO and RWMOs (project 531.1); ii) a questionnaire for persons at the universities that were involved in the development of holistic waste management curricula (project 534.1); and iii) a questionnaire for people involved in the development of city and national waste management strategies (project 534.1) The questionnaires are provided in Annex IV.

33. The questionnaires included an introduction for participants to fill out and consisted mainly of open-ended questions. As descriptive responses were received, a thematic analysis was used by the evaluation team for the questionnaires. The answers to each question were included in Excel tables which made it easier to compare the answers for the same question of all respondents as they were included in the same column.

34. The GWMO/RWMOs questionnaire was translated into Russian and the questionnaire on waste management strategies into Russian and Spanish. Some respondents received the questionnaire in English and Russian or Spanish, to enable them to respond in the language they felt more comfortable with. In general, a response time of four weeks was provided to the potential respondents; initially two weeks, with two reminders granting an additional week's extension to respond. With the second or third reminder, many stakeholders were additionally given the possibility of a Skype call instead, to ensure maximum feedback from as many stakeholders as possible.

35. More detailed information on the questionnaires sent and responses received is illustrated in the tables below.

Questionnaire on the GWMO/RWMOs

36. The evaluation team conducted interviews with the lead authors of each Outlook, as well as with the previous project managers at IETC, UNEP ROs and other involved organizations. Moreover, the evaluation team prepared a questionnaire to capture the feedback from other authors and stakeholders of the Outlooks.

37. The evaluation contacted 86 persons who were involved in the Outlooks; a few other persons could not be contacted as their contact data were not available. 65 responses were received, either via interview or via response to the questionnaire. From a total of 41 interview calls, the Waste Management Outlooks were discussed in 30 calls. These 30 calls correspond to a total number of 40 feedback interviews mentioned in the table below, as in some cases more than one Outlook was discussed during the call.

Table 5: Feedback on GWMO/RWMOs

Waste Management Outlook	Nr of feedback via interviews (A)	Questionnaire sent (B)	Response to questionnaire received (C)	Questionnaire response rates (%) (C/B)	Total Feedback (A + C)
GWMO	4	4	2	50	6
West Asia WMO	3	3	1	33	4
Africa WMO	3	9	6	67	9
Asia WMO	8	1	1	100	9
Central Asia WMO	9	22	6	27	15
LAC WMO	5	6	4	67	9
SIDS WMO	3	4	2	50	5
Mountain Regions WMO	5	7	3	43	8
Total	**40**	**56**	**25**	**45**	**65**

Questionnaire on University Curricula

38. The evaluation team held interviews specifically related to the university curricula with IETC, AIT (with two persons) and with the UNEP Regional Offices in Nairobi and Panama. Additionally, the team sent a questionnaire containing an introductory part and 18 open questions to partners from most universities (in most cases one person per university) involved in the different consortia.

39. The table below presents an overview of the feedback received. Besides the interview calls and questionnaires, the evaluation team also communicated by email with the different project partners. The interviews had overlaps, as they sometimes focused on more than one consortium; in total 4 interviews were held.

Table 6: Feedback on university curricula

Curriculum	Nr of feedback via interviews (A)	Nr of Questionnaires sent (B)	Nr of questionnaires returned (C)	Questionnaire response rates (%) C/B	Nr of overall feedback (A+C)
Asia Pacific	3	4	4	100	7
Africa	2	4	2	50	6
LAC	2	9	7	78	11
TOTAL	**7**	**17**	**13**	**77**	**24**

Questionnaire on the development of waste management strategies

40. At the start of the evaluation, IETC provided the evaluation team with a list of countries and cities that developed strategies. Several of these strategies were however not developed within the framework of project 534.1 (e.g. IGES developed strategies with other funding sources). The evaluation team, in consultation with IETC, determined that 15 countries fully developed waste management strategies within project 534.1, covering in total 13 national, 11 city strategies and one state strategy. The following 15 countries were involved: Bhutan, Cambodia, Honduras. India, Kyrgyzstan, the Maldives, Malaysia, Mongolia, Myanmar, Nepal, Saint-Lucia, Tajikistan, Tanzania, Thailand, and Vietnam.

41. In order to better understand the main results and achievements, lessons learned, challenges, and recommendations for future development of waste management strategies, the evaluation team developed a questionnaire which was sent to partners in these 15 countries who were involved in the development of the city and national waste management strategies. Additionally, interviews were held with representatives from IETC, former IETC project managers, UNEP ROs, ISWA, AIT and the Asia Foundation. In total, 19 interviews were held in which the development of waste management strategies was discussed (in many cases other topics related to the three projects were also discussed during those interviews).

42. A total of 57 questionnaires were sent out, to persons from the organizations and ministries on local and/or national level most directly involved in the development of waste management strategies (based on the stakeholder list provided by IETC). In total 21 responses were received, and one interview was organized with a person who preferred to have a call instead of completing the questionnaire. In countries where national and city strategies were developed, respondents often provided answers related to both strategies in the same questionnaire. The evaluation team received at least one questionnaire back from 14 countries; one country did not reply. The overall response rate was 38,6%. Even though the response rate was low, the evaluation team captured feedback related to all strategies and for all strategies, except one, received feedback from multiple sources (see also table 7 below). The low response rate was due to two reasons: first, for one country alone 16 persons received the questionnaire (based on the list of stakeholders provided by the national focal point). It was anticipated that few of these stakeholders would respond as some were not actively involved, the strategies were developed already in 2016, and due to possible difficulties responding in a non-native language (in total 3 persons out of these 16 sent a response). Also, in several cases the questionnaire was sent to several people from the same institute or organization and the evaluation team received one organizational response.

43. Table 7 summarizes the number of feedback via interviews and questionnaires received for the waste management strategies. It should be noted that there is an overlap in the feedback provided by interviews and questionnaires. Due to these overlaps, the questionnaire response rate per strategy could not be established. Several interviews were organized with current and former IETC staff; in the table below, this is counted as one feedback from IETC per strategy.

Table 7: Feedback on development of waste management strategies

Country	Strategy	Nr of feedback via interview calls (A)	Questionnaires sent (B)	Nr of feedback from questionnaires returned (C)	Nr of overall feedback (A + C)
Bhutan	National	1	4	1	2
	City	1		1	2
Cambodia	National	2	9	2	4
	City	2		1	3
Honduras	National	2	1	1	3
	City	2		1	3

Country	Strategy	Nr of feedback via interview calls (A)	Questionnaires sent (B)	Nr of feedback from questionnaires returned (C)	Nr of overall feedback (A + C)
India	City	2	1	1	3
	City	2		1	3
Kyrgyzstan	National	4	1	1	5
Malaysia	State	3	4	1	4
Maldives	National	1	2	0	1
Mongolia	National	3	2	1	4
	City	3		1	4
Myanmar	National	2	4	2	4
	City	2		2	4
Nepal	National	2	6	4	6
	City	2		4	6
Saint-Lucia	National	3	1	0	3
Tajikistan	National	4	16	2	6
	City	4		1	5
Tanzania	National	2	1	1	3
	City	2		1	3
Thailand	National and city in one strategy	2	2	2	4
Vietnam	National	2	3	1	3
	City	2		1	3
Total feedback		**57**	**57**	**34**	**91**

44. Besides questionnaires, the interview calls also provided data and information about the GWMO and RWMOs, the developed waste management strategies, and the university curricula. For detailed information on the responses to the questionnaires and interviews, please see Annex V.

45. This evaluation was carried out in accordance with the principles set out in the UN Environment Programme Evaluation Policy, the United Nations Evaluation Group Norms and Standards and Ethical Code of Conduct, which includes the following key considerations: (a) all interviews and information were provided in confidence and anonymously and no information can be traced back to a direct source/individual, (b) those involved in the evaluation have had the opportunity to review the evaluation findings as well as the main evaluation report, and (c) the evaluators were sure to have empathy and sensitivity to different contexts and cultures in which stakeholders work throughout the course of the evaluation.

Evaluation Limitations:

46. There were several limitations faced by this TE. These include potential for respondent bias, no possibility for face-to-face meetings (due to COVID-19), short

replies or limited responses to questionnaires, and challenges confirming financial information.

47. The evaluation findings are based partly on the views of interviewees with a responsibility for implementation and execution of project activities who could be potentially biased in their responses. Several measures were taken to reduce the effect of respondent biases and validate interview results, including the following: (i) ensuring that respondents understood the confidentiality of responses; (ii) including interviewees who did not have a direct responsibility for implementation of project activities; (iii) asking respondents to provide a rationale for their judgments; and (iv) using the documents and reports that were prepared during projects to verify or validate responses of the respondents.

48. During the evaluation, mainly during the inception phase but also later during the main evaluation phase, the evaluation team made efforts to gather the materials that had not been provided at the start of the evaluation by the project team:

- The list of stakeholders received by the evaluation team at the start of the evaluation was incomplete. During the evaluation, the evaluation team updated the list of stakeholders, such as the authors and other relevant stakeholders of the various Waste Management Outlooks, and the relevant stakeholders of the national and local waste management strategies;
- Some of the output reports were initially not provided to the evaluation and had to be collected during the inception and main phase of the evaluation;
- The financial information provided for the three projects was incomplete and not always clear at the start of the evaluation; the evaluation team made efforts to distinguish between and/or put together the financial information of each project, which was possible with the help of IETC staff and the Fund Management Officer.

49. It took the evaluation team repeated efforts to clarify the numbers of the planned and actual budget, the amounts of funding and the actual expenditures. The Operational Completion Reports, which provided the financial tables, were only completed 6 months into the evaluation.

50. Owing to the absence of any mid-term reviews and corresponding reports, the lapse of time since the completion of most project activities, and because most of the IETC staff during the projects' implementation was no longer working at IETC (and could not devote proper time for the evaluation), the interviewees mentioned in a few cases that it was not possible for them to recall the requested information.

51. The evaluation team faced challenges with the inconsistencies between the wordings mentioned in the text of the ProDocs and the logical framework and/or the included ToCs. This required time-consuming efforts to understand the intentionality of the projects. However, this challenge could be overcome as the evaluation team reconstructed one joint ToC for all three projects at the inception phase (based on the original outputs and outcomes), which was validated by the UNEP Evaluation Manager and IETC. The evaluation team validated results against this reconstructed ToC.

52. The questionnaires provided a lot of valuable information to the TE, but there were also some limitations. It was sometimes difficult to compare and analyse the questionnaires, as some respondents replied very briefly or did not answer all questions in the questionnaire, whereas others provided elaborate explanations. In the case of the questionnaires on the development of waste management strategies, there were some additional limitations. In these strategies, the answers were not always clear (in a few cases, possibly because the respondents could not reply in their native language) and sometimes the answers provided were contradictory to answers of questionnaires related to the same strategy. Also, triangulation was at times difficult because the number of feedback per strategy was sometimes low. The evaluation team used only those answers that were clear, and in case of contradictory answers the evaluation team tried to verify information provided through desk research or by asking other project partners.

53. An evaluation mission was anticipated to be conducted by the evaluation team; the team planned to start together in Japan to visit IETC and project partners GEC and IGES, and then each evaluation consultant would undertake evaluation missions to a participating country under project 534.1. However, due to the outbreak of the COVID-19 pandemic, the evaluation mission could not take place. The evaluation team could therefore not visit any of the project countries nor conduct face-to-face meetings. All the information had to be captured and triangulated remotely. The team had to rely on the answers to the questionnaires and the Skype calls. Despite these limitations, it was agreed that there was still greater utility in completing the evaluation without field missions to avoid further delays.

54. Collecting data remotely also brought the followed limitations:

- Connectivity issues: Considering that the interviews took place across continents, at times the internet connection was not excellent and therefore communication was more difficult. To counter this and keep data usage to a minimum, most of the interviews were conducted without video setting; despite ensuring a good connection in most cases, this also meant that both sides could not see each other and react to non-verbal communication. Nonetheless, the evaluation team considered that most interviews were very productive and informative;
- Some of the topics under discussion were complicated and needed repeated efforts via Skype or email to clarify. Face-to-face meetings would have probably clarified these issues faster and more effectively;
- Besides setting up interviews and preparing questionnaires, the evaluation team had planned to analyse the involvement of vulnerable and minority groups during the visits to project countries where the team would have had the possibility to communicate directly with these groups. As these visits could not take place, the evaluation team ensured that specific questions on gender and vulnerable groups were included in the questionnaires and interviews. However, the evaluation consultants consider it a limitation that they had no opportunity to engage directly with vulnerable groups in project countries.

55. Nevertheless, the evaluation team tried to ensure maximum data collection and triangulation with the help of the documents' review, the semi-structured interviews

with IETC, UNEP, UNEP ROs, partner organizations and many other stakeholders, further clarification discussions with IETC, and the questionnaires.

III. THE PROJECTS

A. Context

56. Demand from developing countries for international cooperation on waste management has grown over the last years. Population growth, urbanization and economic development have resulted in changing resource consumption patterns and have led to a rapid increase in waste volumes and types of waste. The conventional approach to waste management (i.e. mostly treatment and disposal in landfills) has been challenged by the increasing waste generation and the complex waste streams; this approach is resource-intensive especially with regard to land use and generates pollution and contamination from waste collection trucks, treatment plants and disposal sites.

57. Acknowledging this growing demand, in 2013, UNEP's Governing Council and the United Nations Environment Assembly (UNEA) called for greater support by UNEP on waste management. In response, UNEP developed an approach focused on supporting countries and stakeholders on waste management issues. This approach aims to address waste in all its forms (solid, liquid and gaseous) from a holistic perspective that supports sustainable development through the strengthening of circular economies. Since then, UNEP has made efforts towards a global paradigm shift in waste management; from removal and disposal of waste to a holistic lifecycle approach. This holistic approach considers waste in all its forms, emphasizes waste prevention and promotes utilization of waste as a resource for material and energy recovery. It is based on the 3R waste hierarchy principle prioritizing waste reduction, reuse and recycling.

58. As a consequence, UNEP, through IETC based in Japan, has led the implementation of several projects aimed at supporting countries in their efforts to enhance their waste management systems, including the three projects under evaluation. All three projects have been implemented in collaboration with mostly the same main partners; besides the UNEP ROs, these included ISWA, the Institute for Global Environmental Strategies (IGES), the Asian Institute of Technology (AIT), the Global Environment Centre Foundation (GEC) and national governments.

59. The first of these projects was **project 531.1** on the Global Waste Management Outlook (GWMO). The overarching objective of the GWMO project was "to provide an authoritative overview of the state of waste management around the globe and present an analysis of policy instruments – addressing the different stages of the waste hierarchy – and financing models for waste management." The project aimed to develop both a GWMO, as well as Regional Waste Management Outlooks (RWMOs).

60. The second project was **project 531.2** "Secretariat Support to the Global Partnership on Waste Management." The overall aim of this project was "to increase international cooperation on waste management to support developing countries to improve their unsound management of wastes through the GPWM knowledge platform".

61. The GPWM was established in 2010. According to the GPWM Framework document, "the GPWM is an open-ended partnership for international agencies, governments, businesses, academia, local authorities and nongovernmental organizations. The

GPWM supports the development of workplans to facilitate the implementation of integrated waste management at national and local levels to overcome environmental, public health, social and economic problems arising from unsound management of wastes." The secretariat function of the GPWM was to be hosted at IETC and was described in the GPWM framework document as follows: "The secretariat manages the day-to-day coordination of the GPWM by gathering and sharing information on existing activities in waste management; supporting exchange of information and networking among participants; and facilitating the implementation of activities of the focal area working groups".

62. The third project was project **534.1** called "Delivering integrated waste solutions at the national and local level". The overall project objective was "to create enabling conditions and to promote behavioural changes, so that waste would be treated and disposed of in an environmentally sound manner". In the long run, this was expected to result in the reduction of adverse impacts on human health and the environment.

63. The 534.1 project planned to support multiple countries in their efforts to improve their waste management systems, at national and city levels. The project was foreseen to start with ten countries: Bhutan, Cambodia, India, Kyrgyzstan, Malaysia, Mongolia, Myanmar, Nepal, Tajikistan and Vietnam. During project implementation, more countries were added, namely Bahrain, Honduras, the Maldives, Saint Lucia, Tanzania and Thailand. For some countries, national and city waste management strategies were expected to be developed and for others only city waste management strategies.

64. The three projects were global projects. Project 531.1 and 531.2 centred on preparing Waste Management Outlooks, guidelines and reports. It was not expected that external factors – such as conflicts, natural disasters, or unanticipated political changes - would hinder the implementation of these projects. Project 534.1 can be considered more prone to external factors influencing project implementation. The risk analysis of project 534.1 mentions the risks of changes in government and/or commitment by the governments and local partners to project implementation. Some stakeholders involved in the development of waste management strategies noted in the questionnaires that political factors caused delays in development and approval of the strategy in their country.

B. Results framework

65. As no official project revisions took place, the results framework per project was based on the three ProDocs and is illustrated below. These overviews contain a description per project (as taken from the ProDocs) of Expected Accomplishments, Programme of Work (PoW) Outputs, overall objectives, down to project outcomes, outputs and activities.

66. Based on these three result frameworks, the evaluation team prepared a joint ToC for the three projects together, which will be explained in chapter IV – Theory of Change at Evaluation. This reconstructed ToC was used for evaluating the effectiveness of the three projects as well as informing the assessment of the other evaluation criteria (see chapter V - Evaluation Findings, section D – Effectiveness).

67. 531.1 Global Waste Management Outlook

Table 8: Result Framework of project 531.1

Expected Accomplishment:	5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs.
PoW Output[1]:	531: Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management.
Overall objective:	To provide an authoritative overview of the state of waste management around the globe and present an analysis of policy instruments – addressing the different stages of the waste hierarchy – and financing models for waste management.
Project Outcome:	Governments and other stakeholders have access to reliable and structured information on the state of waste management around the globe, particularly; and increasingly use the information to develop policies and sustainable financing mechanisms.
Output 1:	GWMO produced and published (main publication as e-publication; executive summary and media report as e-publication and hard publication).
Activity 1.1:	*Development of the GWMO draft:* Development of full draft according to the inputs from stakeholder groups and steering committee.
Activity 1.2:	*Internal review exercise:* Internal review by the steering committee, IETC and ISWA.
Activity 1.3:	*Development of the final GWMO document:* Development of the final document according to the comments received by the internal review exercise. The final document will be professionally edited and its design and layout will be undertaken by a professional design company.
Activity 1.4:	(mentioned in the ProDoc as Activity A.2, probably a typing error.) *Development of the GWMO executive summary and media report:* The standalone executive summary and the media report will be developed according to the findings of the technical report main publication. Professional editing, translations and design and layout will be undertaken in these two additional products.
Activity 1.5:	(mentioned in the ProDoc as Activity A.3, probably a typing error.) *Publishing the GWMO (three products):* The main GWMO document will be made available in English as an e-publication. The standalone executive summary and media report will be published as hard and soft copies in all six UN languages (English, Spanish, French, Chinese, Arabic, Russian) and in Japanese.
Output 2:	RWMOs produced and published (e-publication).
Activity 2.1	*Preparatory work for the RWMOs:* The preparatory work for developing the regional waste management outlooks for Central Asia, Latin America and the Caribbean, Mountain regions, Asia, Africa and SIDs will cover the following: - Selection of, and agreement with, the regional institution(s) acting as the executing partner(s); - Initial consultation meeting gathering stakeholders across the region; and - Establishment of each regional Steering committee and identification of broad stakeholder peer review regional groups.
Activity 2.2	*Development of and publishing the RWMOs:* Development of the RWMOs with the support of the Regional Offices (ROAP, ROE, ROLAC, and ROA and UNEP Vienna Office), the quality assurance of the Steering Committees and the consultations

[1] The PoW Output for the last period (2018/19) was not identified in PIMS or any reporting document provided to the evaluation team.

	and contributions of regional stakeholders. - Development of the annotated outline; - Development of the draft(s); - Internal and external peer reviews; - Development of the final RWMOs; and - Preparation of the publications including editing, design and layout.
Output 3:	GWMO and RWMOs launched and presented at different events (workshops, conferences, etc.)
Activity 3.1	*Presentation, launch and further dissemination of the GWMO.* The GWMO will be launched at the annual Congress of the International Solid Waste Association in September 2015 in Antwerp, Belgium. Further dissemination activities would be undertaken in accordance with the communications strategy developed for the project.
Activity 3.2	*Presentation, launch and further dissemination of the RWMOs.*

68. 531.2 Secretariat Support to the Global Partnership on Waste Management

Table 9: Result Framework of project 531.2

Expected Accomplishment:	5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs.
PoW output[2]:	531: Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management.
Overall objective:	This project aims at increasing of international cooperation on waste management to support developing countries to improve their unsound management of wastes through the GPWM knowledge platform.
Project Outcome:	International cooperation on waste management increasingly uses the GPWM as a knowledge platform.
Output 1:	Generated knowledge to inform international cooperation on waste management in developing countries.
Activity 1.1:	Conducting demand and needs assessment for developing countries to identify priorities to improve the unsound management of waste.
Activity 1.2:	Mapping of international waste management projects to analyse gap between demand and needs from developing countries and supply from international organizations.
Activity 1.3:	Identification of a roadmap on the delivery of international waste management projects in order to coordinate these projects to fully meet the demand and needs from developing countries.

[2] The PoW Output for the last period (2018/19) was not identified in PIMS or any reporting documents provided to the evaluation team.

Output 2:	Secretariat services and guidance provided to the GPWM to increase international coordination in supporting waste management in developing countries.
Activity 2.1	Establishment of GPWM knowledge platform to disseminate knowledge management products, such as Scientific Assessment Reports, data, tools and guidelines developed by international organizations and other partners, and to share information on international waste management projects.
Activity 2.2	Organization of the GPWM biennium conferences to directly discuss coordination of international waste management projects among international organizations and partners and share knowledge management products with them.
Output 3:	Pilot solutions for emerging and complex waste streams for potential future inclusion in GPWM approach.
Activity 3.1	Conducting a study on environmentally sound management of mercury wastes, including mercury inventory, in Asia to assist the region in early implementing the provision on mercury waste management in accordance with the Minamata Convention on Mercury, in cooperation with the Global Mercury Partnership.
Activity 3.2	Updating the Training Resource Pack on Hazardous Waste in partnership with ISWA and the United Nations Industrial Development Organization (UNIDO) and organizing training on hazardous waste management.

69. 534.1 Delivering integrated waste solutions at the national and local level

Table 10: Result Framework of project 534.1

Expected Accomplishments:	5A: Countries increasingly have the necessary institutional capacity and policy instruments to manage chemicals and waste soundly including the implementation of related provisions in the MEAs. 5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs.
PoW Output[3]:	2014/15-534: Technical services demonstrating and implementing sound waste management techniques delivered regionally and nationally with strategic partners. 2018/19-534: Support to strengthen cooperation, coordination and partnerships across the globe, including within the United Nations system, and enhance linkages and synergies among major air quality programmes and stakeholders.
Overall objective:	To create enabling conditions including behavioural changes so that waste is treated and disposed [of] in an environmentally sound way.
Project Outcome 1:	Improved capacity of national and local governments in developing countries to apply the waste hierarchy approach.
Project Outcome 2:	Stakeholder awareness and participation has increased and there is active political support to improve waste management in a holistic manner in project countries.
Output 1:	Support the collection of state-of-the-art waste hierarchy approach knowledge, fill knowledge gaps on 3R and made knowledge products available for developing countries.
Component 1:	Awareness-raising and long-term capacity building on waste management.
Activity C 1.1	Develop guidelines on Framework Law on Waste Management.
Activity C 1.2	Conduct a Study on Economics of Waste Management.
Activity C 1.3	Capacity-building on Co-benefits of Waste Management.
Activity C 1.4	Facilitating a Consortium for Academic Curriculum on Waste Management.
Activity C 1.4	Establishing a Knowledge Hub.
Output 2:	Support project countries to strengthen capacities for 3R/ waste hierarchy

[3] The PoW Output as stated in the ProDoc was incorrect and is replaced here by the correct PoWs statements.

	approach.
Component 2:	National and city level waste management strategies leading to development of legislative framework.
Activity C 2.1	Development of Baseline and Outline of the Strategy and Action Plan.
Activity C 2.2	First National/City level Workshop.
Activity C 2.3	Developing draft National/City-level Waste Management Strategy with the Action Plan.
Activity C 2.4	Second National Workshop – Finalization of Strategy and Action Plan and identification of Pilot / Demonstration Project.
Activity C 2.5	Launch of Strategy and Action Plan and Pilot / Demonstration Project.
Output 3:	Promote the replication and scaling up of the waste hierarchy approach in developing countries supported by regional/sub-regional bodies and partnerships.
Component 3:	Regional and sub-regional guidance notes for national legislations on waste management.
Activity C 3.1	Conduct studies on Waste Management, E-waste and Mercury Waste in ASEAN region.
Activity C 3.2	Supporting ASEAN Secretariat in developing a "Note" on Waste Management.

C. Stakeholders

70. UNEP IETC was the main implementation agency, implementing the three projects in collaboration with other partners, such as ISWA, IGES, GEC, AIT, Zoï Environment Network, Grid-Arendal, the Asia Foundation, CEDARE, CSIR and the national and local governments. Other UNEP Divisions, for example the UNEP Division of Environmental Policy Implementation (now the Ecosystems Division) contributed in different ways to the projects. IETC also worked closely with the UNEP ROs for the implementation of all projects at regional level. The ROs provided support on selecting authors, reviewing the draft reports, launching of the WMOs, coordinating with the national and/or city governments for the waste strategies, and actively engaged with the participating universities on preparing the waste management curricula.

71. ISWA was one of the main leading partners of the projects. ISWA supported in the selection of authors, was involved in writing some parts of the WMOs, reviewing the WMOs, and coordinating and carrying out the GPWM Secretariat function together with IETC. Some Interviewees and respondents to the questionnaires also mentioned that ISWA supported them with the development of waste management strategies and the university curricula on waste management.

72. These stakeholders, together with other international organizations and agencies, such as the Japan International Cooperation Agency, the German Agency for International Cooperation and regional bodies such as the Association of Southeast Asian Nations (ASEAN), are considered to have a high influence, as well as high interest, in project design and implementation, as well as results.

73. Owing to the crucial thematic area of the projects – waste management - other stakeholders have high interest in the projects and their results, though not necessarily a high influence on project design and/or implementation. They supported various activities of the projects; for example, the involvement of research institutes and academia for preparing reports and training curricula. Similarly, the local communities and NGOs have a high interest in the results of the projects, though they generally did not have a high influence on project design and

implementation. Their participation also facilitated project implementation at local level, and they remain relevant partners as they advocate for upscaling to, and replication in, other regions of the participating countries.

74. The evaluation team interviewed as many of the main stakeholders as possible, i.e. stakeholders with a high influence and high interest in the project and results. These included UNEP IETC staff involved in designing and implementing the project, UNEP ROs, ISWA, AIT, the Asia Foundation, GRID-Arendal, IGES, GEC, CSIR and Zoï Environment Network. Similarly, the evaluation team sent questionnaires to national and local governments involved in the development of waste management strategies. Efforts were also made to capture the views of other stakeholders, who had a high interest in the project, but did not necessarily have a high influence, either through interviews via Skype or sending questionnaires.

75. The ProDocs did not have a section on potential beneficiaries of the project; nevertheless, the ProDoc of 531.1 (p.7) mentions that "improperly disposed of waste … can be harmful for workers, adjacent communities and the environment". It states that new jobs and employment opportunities can be created, including in the informal sector, by improved waste management approaches. Moreover, women and children, engaged in waste picking, were expected to be reflected in the GWMO. Under-represented/marginalised/indigenous people, being affected by improper waste management, are expected to benefit from more efficient waste management resulting from the information provided in the GWMO publication. During the main evaluation phase, the evaluation team explored if, and to what extent, gender and under-represented/marginalised groups were involved in, and informed about, project activities. This was mostly done through document review and interviewing key project partners, as direct contact with marginalised people was difficult. Generally, they do not have access to internet. As mentioned previously, the evaluation team could not fully include the views of vulnerable and minority groups, as no visits to countries were carried out due to the COVID-19 situation. However, the evaluation team included specific questions on gender, as well as on vulnerable and minority groups, in the interviews with key project partners and stakeholders and in the questionnaires.

76. Further, the ProDoc of 531.1 states that the results of the project would be useful for people in a position to develop and deploy policy instruments, allocate funding and facilitate waste management, i.e. national and municipal policymakers, international organizations, financial institutions, development cooperation agencies, business community and public interest groups.

77. Several other stakeholders provided support and contributed to project activities. The following table includes a short summary of the stakeholders, their roles, interest and influence in the three projects:

Table 11: Overview of stakeholders

Stakeholders	Power over project results and the level of interest *	Participa-ted in project design?	Roles & responsibilities in project implementation	Changes in their behaviour expected through implementation of the project
UNEP Divisions	A	Yes	UNEP Division of Environmental Policy Implementation, DEPI (now the Ecosystems Division) and UNEP Division of Technology, Industry and Economics (now the Economy Division).	Continued engagement in waste management in developing countries.
UNEP Regional Offices	A	No	531.1: Cooperation and lead in the development of RWMOs; peer reviewer of the GWMO; suggestions for selection of members of the Steering Committee; launching events; dissemination of WMOs; sub-allotment holder. 534.1: Coordination with the Consortium for Academic Curriculum on Waste Management; consultations and suggestions in selection of countries for the national and city-level waste management strategies; important role in project implementation; support in identifying experts.	Continued engagement in waste management projects. Support dissemination of Outlook and other reports and studies; follow-up with countries to ensure continued dissemination and interest; initiate discussions with other countries in the region on waste management.
UNEP - IETC	A	Yes	IETC provided the project managers for the three projects and managed all three projects on a daily basis.	Continued engagement in waste management in other countries. Further projects ongoing and planned.
Global Partnership on Waste Management	A	Yes (531.2)	Several lead partners of the GPWM were involved in project implementation of all three projects.	Continued engagement in waste management projects.
ISWA	A	Yes (531.2)	Project partner; one of the "lead partners" for project implementation; Reviewer of WMOs, support in identifying authors for the WMOs. Biggest association on waste management with strong programmes and information sharing activities.	Implementation of waste projects in other countries. Non-institutionalised continuation of Secretariat for Partnership on WM function.
AIT	A	Yes (534.1)	Project partner, implementation in some countries, provided support to national and local waste management strategies, and the development of the Asia Pacific University Curriculum.	Support to implementation of waste projects in other countries.
IGES	A	Yes (534.1)	Project partner, implementation in some countries, prepared national and local waste management strategies.	Support in preparing national and local waste management strategies in other countries.

GEC	A	No	Project partner, prepared national and local waste management strategies in several Asian countries.	Support in preparing national and local waste management strategies in other countries.
Japan International Cooperation Agency, German Agency for International Cooperation	B	No	Project partners.	Continued support to waste management projects.
ASEAN	A	No	Development of sub-regional guidance notes and studies, particularly on mercury and e-waste.	Further engagement in waste management projects and reports in other Asian countries.
UNIDO	C	No	Planned to partner on e-waste activities.	Continued engagement in waste management projects in developing countries.
UNITAR	C	No	Project partner in projects 531.2 and 534.1.	Continue and improve training activities in waste and hazardous waste management.
ICSD	C	No	Project partner in 534.1.	Further engagement in waste management projects and reports in countries of Central Asia.
SACEP	C	No	Collaboration with IGES CCET.	Further engagement in waste management projects and reports in other countries.
BCRC-SEA	C	No	Project partner in 531.2, e-waste study in ASEAN countries.	Bringing the GWMO and the WM projects to the attention of countries.
National and local Govern-ments	A	Yes	Work with project teams and develop national / local strategies and action plan.	New improved waste policies, rules and regulations; Upscaling and replication of sound management of waste projects.
Organiza-tions, such as, Zoï Environment Network, GRID-Arendal	C	No	Project partner, prepared reports, e-course on mercury waste.	Continued engagement in waste management projects in developing countries, further gender and waste reports, other e-courses on topics related to waste management.
Waste generators (including private sector)	C	No	Planned to participate in and provide support to project implementation.	Waste minimization and segregation.
Service providers in the waste	C	No	Member of the Steering Committee from the private sector.	Development of waste management systems.

management sector (including private sector)				
Communities, NGOs	C	No	Awareness-raising, involvement in the development of city waste management strategies; member of GWMO Steering Committee.	Translate national / local policies at community level.
Informal sector	C	No	Was not really involved in project implementation.	Translate national / local policies at community level.
Gender and underrepre-sented, marginalised, indigenous groups	C	No	No involvement per se in project implementation.	Translate national / local policies at community level; Continuation of awareness-raising activities.
Academia, Think-Tanks, Research Institutes	C	No	Capacity building and studies / reports.	Continue and improve curricula and research on sound management of waste; Continuation of awareness-raising activities.

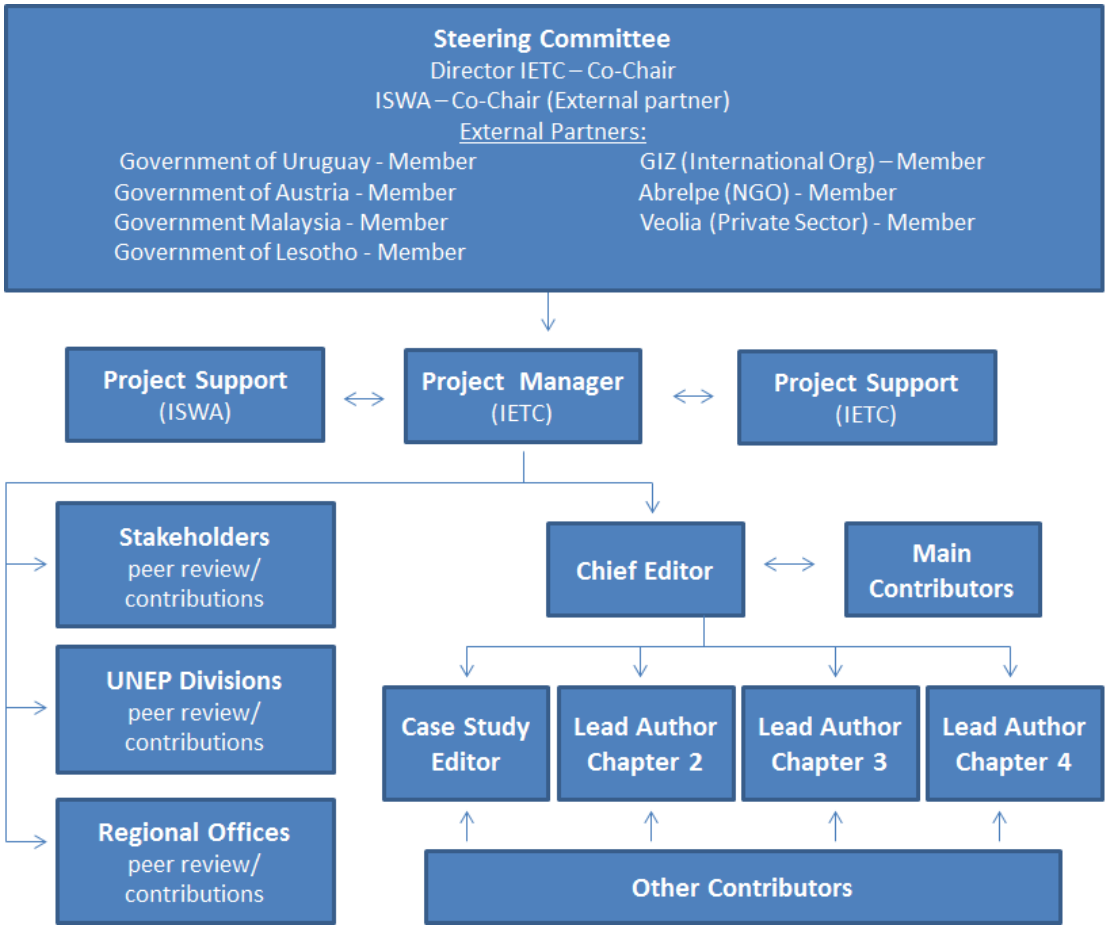
*****

Type A: *High power / high interest = Key player*
Type B: *High power/ low interest over the project = Meet their needs*
Type C: *Low power/ high interest over the project = Show consideration*
Type D: *Low power /low interest over the project = Least important*

D. Project implementation structure and partners

78. The implementation structure of the three projects is illustrated below in the diagrams taken from the three ProDocs:

531.1 Global Waste Management Outlook



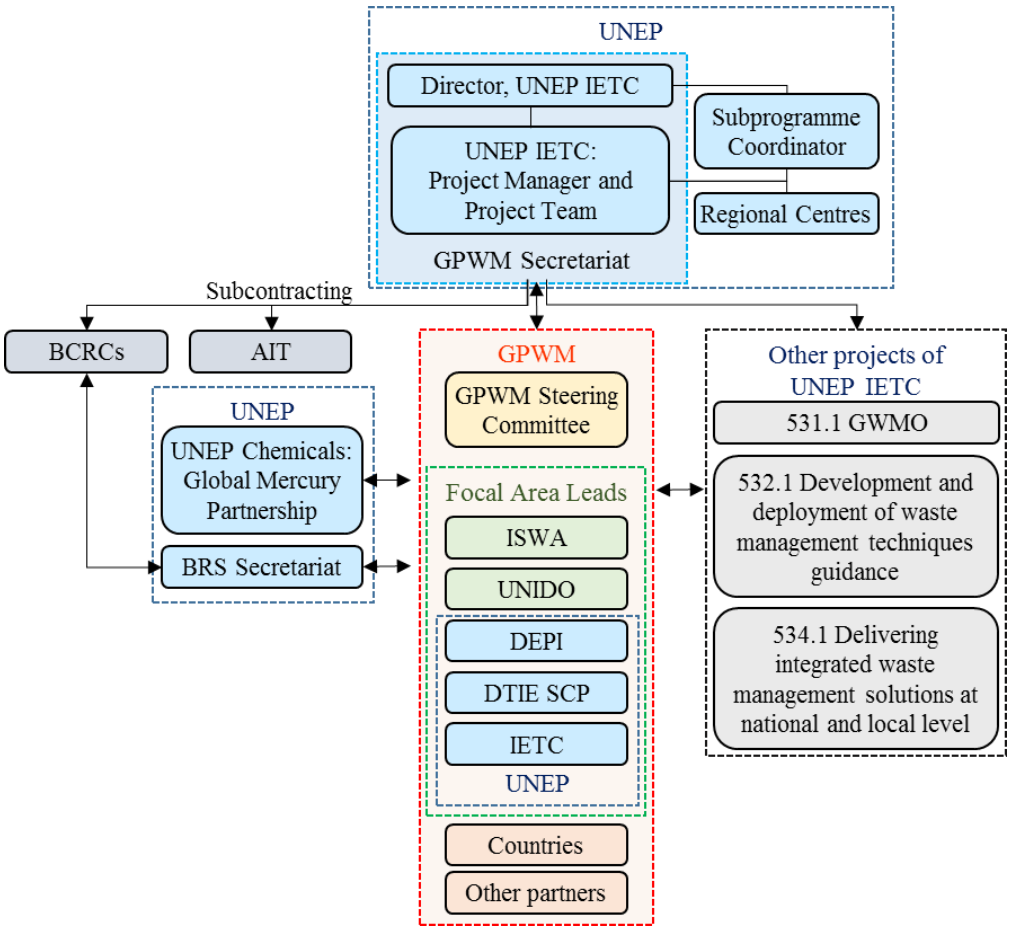
Source: ProDoc.531.1.

Figure 1: **Organigram of project 531.1 with key project stakeholders**

79. The actual implementation structure was in line with the implementation structure presented in the ProDoc as shown above. A Project Manager from IETC was overall in-charge of coordinating the development of the Outlooks. IETC and ISWA provided project support. Chapters were allocated to the corresponding lead authors. Some of the RWMOs were coordinated by the UNEP ROs, for example, UNEP RO for the LAC region was overall responsible for the LAC RWMO. The draft Outlooks underwent a rigorous review process involving several stakeholders, such as IETC, other UNEP Divisions, UNEP ROs, the Project Steering Committee, and authors of other Outlooks.

80. The Steering Committee (SC) consisted of representatives from IETC, ISWA, governments, the private sector, and the NGO ABRELPE. The role of the SC was to provide guidance, provide comments on the annotated outline of the GWMO, review the drafts of the GWMO and RWMOs and carry out quality assurance. Three SC meetings took place (out of a planned maximum of four): in March 2014, October 2014 and March 2015. During the final meeting, the draft of the GWMO was presented to the SC members and their feedback discussed with the Chief Editor [GWMO SC Meeting Summary, 11 March 2015].

531.2 Secretariat Support to the Global Partnership on Waste Management



Source: ProDoc 531.2.

Figure 2: Organigram of project 531.2 with key project stakeholders

81. According to the 531.2 ProDoc, several consultations took place on waste management, during which it was decided to establish a global platform as a coordinating mechanism on waste management, with selected lead organizations in each focal area. The GPWM was launched[4] in Osaka, at the end of a consultation workshop that took place between 18-19 November 2010.

82. Although the foreseen roles and functions of the GPWM Secretariat, inter alia, "to bridge the gap and to facilitate linkages … with major international and bilateral

[4] According to the GPWM Framework Document, the GPWM was created "to establish a coordinating forum for international organizations, governments, private sector, civil society and other stakeholders."
In this Framework Document, the GPWM is defined as "an open-ended partnership for international agencies, Governments, businesses, academia, local authorities, and nongovernmental organizations. The GPWM supports the development of work plans to facilitate the implementation of integrated waste management at national and local levels to overcome environmental, public health, social and economic problems arising from unsound waste management. The GPWM supports policy dialogues and other activities to exchange experiences and practices, facilitating enhanced awareness raising and capacity building".
The Framework Document states that he GPWM focuses on major waste streams such as municipal waste, industrial waste, healthcare waste, waste agricultural biomass, e-waste, hazardous waste, etc. Related themes such as capacity building, information collection and sharing, financing, policies, technologies, etc. are also incorporated. However, this partnership does not work directly on issues such as nuclear waste, munitions waste, chemical weapons, etc."

organizations, …. countries, …" (ProDoc 531.2, p.4), were carried out by IETC, with the support of the ISWA, the GPWM Secretariat was not formally set up.

83. IETC managed the project in cooperation with the UNEP Division of Environmental Policy Implementation (named 'Ecosystem Division' since 2017) and the Division of Technology, Industry and Economics (named 'Economy Division' since 2017), under the guidance of the Sub-Programme Coordinator on Chemicals and Waste. They were supported by ISWA, the Basel, Rotterdam and Stockholm Convention Secretariats (BRS), and other partners, such as IGES, GEC, AIT and Zoï Environment Network. The UNEP ROs coordinated the activities, such as the preparation of scientific assessments and studies, with regional and sub-regional partners and organizations in their respective regions.

84. The Steering Committee of the GPWM consisted of focal area leads and core partners, the UNEP Division of Technology, Industry and Economics (named 'Economy Division' since 2017), Sustainable Consumption and Production Branch IETC, ISWA, UNEP ROs and the BRS. According to reports of the meetings provided to the evaluation team, meetings were held in December 2015 (2nd meeting), March 2016 (3rd meeting) and September 2016 (5th meeting)[5]. There were no further GPWM Steering Committee meetings, as it was considered sufficient to have ad-hoc meetings to maintain the partnership, also beyond formal project completion.

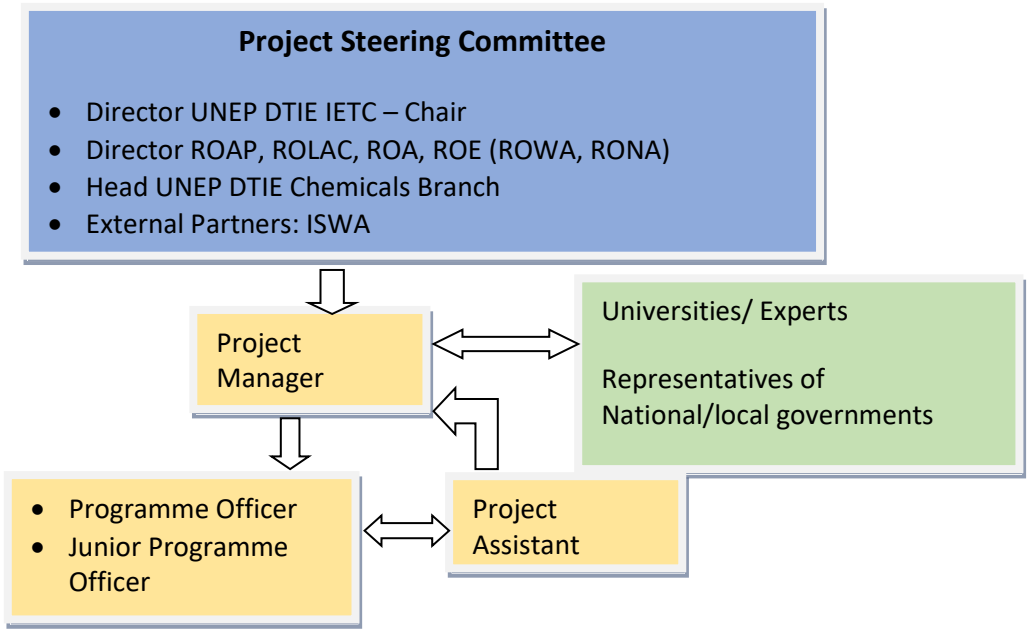
85. The above diagram reflects the project's implementation structure. All the partners mentioned in the above implementation diagram participated in different activities.

86. Interactions with the other projects shown in the above diagram were reported. Several experts worked on more than one project, thus utilizing the information and knowledge gained in one project for the benefit of the other projects. Between January 2015 and December 2016, IETC implemented a capacity building and demonstration project for waste management: "Development and deployment of waste management techniques guidance" (project 531.1). According to the ProDoc of project 532.1 "the compendiums developed under the project will also be communicated through the GPWM…" (p.13). This interaction between the two projects is also illustrated in the above diagram.

87. The interactions with project 531.1 and project 534.1 as reflected in the diagram are also clear. The evaluation team prepared one reconstructed and combined ToC diagram for project 531.1, 531.2 and 534,1, as it was evident that the projects were interlinked and aimed towards the same impacts (please see also chapter IV - Theory of Change at Evaluation).

[5] No meeting reports were provided to the evaluation team for the 1st and 4th meetings.

534.1 Delivering integrated waste solutions at the national and local level



Source: ProDoc 534.1.

Figure 3: Organigram of project 534.1 with key project stakeholders

88. The above diagram illustrates in a simple way the implementation structure planned for the 534.1 project. A Project Steering Committee was planned to be set up, but in reality, no specific Project Steering Committee was established. According to the interviews, the Project Manager was in contact with the UNEP ROs, and coordinated project activities with the project partners. Project activities were addressed in day-to-day meetings at IETC. All the persons and institutions involved in each region and per project activity - for example preparation of waste management strategies or preparation of university curricula - conducted meetings, planned, coordinated, implemented, and reviewed the respective component. Activities with project implementing partner IGES were supervised by a steering committee consisting of amongst others IETC, the UNEP Economy Division and IGES staff. The work done by IGES, however, covered only part of all the activities implemented within project 534.1

89. The Project Manager was assisted by the Junior Programme Officer and/or Project Assistant at IETC. The Project Manager coordinated with the UNEP ROs and the core group of universities for the preparation of the university curricula; overall responsibility for the university curricula in the LAC and African region were with the respective UNEP ROs. For the preparation of the national and city level waste management strategies, a supporting organization was selected; this is however not reflected in the above implementation diagram. The Project Manager coordinated with the selected organization, for example AIT, IGES, and GEC, as well as with national and local governments and with the UNEP ROs as necessary.

90. According to the Terminal Review Report of project 532.1 (PIMS 1839) - Development and deployment of waste management techniques guidance - "the project had substantial complementarity with project 534.1." (p.8).

91. Project 534.1 started a few months after the commencement of project 532.1; the ProDoc of project 534.1 does refer to project 532.1; however, the above-mentioned complementarity with project 532.1 as well as with the other two projects under evaluation, (i.e. project 531.1 and project 531.2) has not been considered in the above implementation structure diagram.

E. Changes in design during implementation

92. There were no formal cost or no-cost extensions for any of the three projects. Some activities that were not finalized within the projects, could be moved to follow-up project 521.1. IETC did not prepare any formal project revisions to the projects' outputs and activities, see the paragraph below.

93. Under project 534.1, the Steering Committee was not established. A Steering Committee existed only for the work done by IGES within this project. Within the framework of project 531.2, the formal GPWM Secretariat was not established. In 2016, IETC decided to not set up the formal GPWM Secretariat; IETC concluded that the GPWM Secretariat did not have a great added value to the cooperation between international stakeholders and that cooperation would be continued on an ad-hoc basis, especially under the umbrella of expertise, network and cooperation provided by ISWA, together with IETC. However, as the GPWM Secretariat was one of the main elements of project 531.2, the evaluation team considers that a formal project and budget revision reflecting project and financial changes should have been submitted by IETC to the UNEP Economy Division, explaining why the decision to cease establishment of the GPWM Secretariat was taken (see also chapter V – Evaluation Findings, Section D – Effectiveness, and Section E – Financial management).

94. Some of the project activities were transferred to ongoing follow-up project 521.1. According to the ProDoc of the 521.1 project, this project "builds on and consolidates the existing four projects of UNEP IETC on waste management" (p.1), namely, project 532.1 ("Development and deployment of waste management techniques and guidance") and the three projects under evaluation (project 531.1, 531.2 ad 534.1).

95. The ProDoc for project 521.1 further states that "preparatory works for the publication of regional waste management outlooks for Africa, West Asia, and Small Island Developing States have been initiated through the existing project on waste management outlooks (project 531.1) with support from respective regional offices. These outlooks will be completed during 2018 – 2021 period as part of this project." The preparations for the Small Island Developing States (SIDS) and West Asia Outlooks were started during 531.1 and were finalized and published after the operational completion of project 531.1 (December 2018). Both reports were therefore launched under project 521.1. The Africa Outlook was however already published in 2018 before the operational completion period of 531.1. All three Outlooks were covered by this evaluation as most preparation work was done within project 531.1 and all Outlooks were finalized before this evaluation and were thus available to the evaluation team.

96. Some of the waste management strategies were started within project 534.1, and finalised within project 521.1, for example the strategies for Jamaica and Myanmar. For the TE, the evaluation team has considered all the strategies that were fully developed at the start of the evaluation, i.e. the work on the Myanmar and other strategies has been analysed, but the strategy for Jamaica has not been finalized yet and was therefore not part of this evaluation.

F. Project financing

97. The overall planned budget of all three projects together was USD 18,018,777.

98. The total planned budget of **project 531.1** was USD 2,333,297. The planned costs to the Environmental Fund were USD 371,440 (in-kind). The total unsecured costs were USD 1,059,438.

99. The total planned budget of **project 531.2** was USD 5,496,041, of which the unsecured costs were USD 836,299. The costs to the Environmental Fund were planned to be USD 250,000 (in-kind).

100. The total planned budget of **project 534.1** was calculated at USD 10,189,439. The total unsecured budget was USD 4,450,922. The Regular Budget costs were planned to be USD 250,000 (in-kind). A cash contribution of USD 1,000,000 from the Environment Fund was foreseen.

101. A table summary of the planned budgets as provided in the ProDocs - including secured and unsecured funding, and in-kind and cash contributions - is presented below.

Table 12: Total planned budget

Project	TOTAL Planned Budget	Secured Budget (Cash)	Unsecured budget (Cash)	Environment Fund (In-kind)	Environment Fund (Cash)	Regular Budget (In-kind)[6]
531,1	2,333,297	902,419	1,059,438	371,440		
531.2	5,496,041	4,409,741	836,299	250,000		
534.1	10,189,439	4,488,517	4,450,922		1,000,000	250,000
TOTALS	**18,018,777**	**9,800,677**	**6,346,659**	**621,440**	**1,000,000**	**250,000**

Source: Budget summaries of the three ProDocs.

102. For further details on planned budget, available secured budget for project implementation, and expenditures per project, please see chapter V - Evaluation findings, section E - Financial Management.

[6] The ProDoc budget mentions an amount of USD 250,000 as Regular Budget. This was however actually received as Environment Fund contribution (see also the chapter V - Evaluation findings, section E - Financial Management).

IV. THEORY OF CHANGE AT EVALUATION

103. All three projects contained ToC diagrams in their ProDocs. At the start of the evaluation (when preparing the Inception Report), it was decided to prepare one reconstructed and combined ToC diagram, as it was clear that the projects were interlinked and aimed towards the same impacts.

104. For the development of the combined ToC, the evaluation considered the Outcomes and Outputs as provided in the three project ToCs and logical frameworks (presented in Chapter III - The Projects, section B - Results framework) as a basis for developing the combined ToC. These Outcomes and Outputs were often not in line with the definitions of Outcomes and Outputs as used today by UNEP. Therefore, the project Impact, Intermediate States, Outcomes and Outputs were reformulated to align with the UNEP results definitions and on occasion combined in order to develop a more coherent intervention logic.

105. The evaluation used the following definitions[7]:

- **Output:** An Output is the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities and awareness of individuals or within institutions. For example, access by the intended user to a report; new knowledge held by a workshop participant at the end of a training event; heightened awareness of a serious risk among targeted decision-makers. (Outputs are viewed from the perspective of the intended beneficiary or user of the Output rather than the provider);
- **Outcome:** An outcome is the use (i.e., uptake, adoption, application) of an output by intended beneficiaries, observed as a change in institutions or behaviours, attitudes or conditions;
- **Direct Outcome:** A direct outcome is an outcome that is intended to be achieved from the uptake of outputs and occurring prior to the achievement of Project Outcome(s);
- **Project Outcome:** Project Outcome(s) are those outcomes that are intended to be achieved by the end of project timeframe/funding envelope;
- **Intermediate State:** Intermediate States are changes (i.e. changes at the Outcome level) beyond the Project Outcome(s) that are required to contribute towards the achievement of the intended impact of a project;
- **Impact:** Impacts are long-lasting results arising, directly or indirectly from a project. Impacts are intended and positive changes and must relate to UNEP's mandate;
- **Assumption:** An assumption is a significant external factor or condition that needs to be present for the realization of the intended results but is beyond the influence of the project and its partners. Assumptions are often positively formulated risks;

[7] See document: Final Glossary of Results definitions_13.11.2019.

- **Driver:** A driver is a significant external factor that, if present, is expected to contribute to the realization of the intended results of a project. Drivers can be influenced by the project and its partners.

106. During the main evaluation phase, when the evaluation team was conducting interviews and questionnaires, it soon became clear that the 531.2 GPWM Secretariat project was not implemented as originally planned. For reasons mentioned earlier in the report, IETC decided in 2016 to not set up the GPMW Secretariat. This meant that the ToC, as developed during the inception phase of the evaluation was adapted. This ToC at evaluation is presented below; the changes compared to the ToC developed during the inception phase of the evaluation are presented in bold.

Causal pathways

107. Output 1 in the reconstructed ToC has been reformulated to represent the essence of the three Outputs (which are actually accomplished Activities) and the Outcome mentioned in the ProDoc of project 531.1. Together with the active support of the GPWM Secretariat, IETC, ISWA and other project partners, it is expected to lead to Direct Outcome 1: policy making and implementation and research via increased use by stakeholders of available products, amongst others the GWMO and RWMOs, and services, provided by IETC and ISWA. The information provided in the GWMO and RWMOs is expected to be helpful for policy making and further research.

108. Outputs 2, 3 and 4 have been reformulated to reflect the three Outputs mentioned in ProDoc of 531.2. As shown in the reconstructed ToC, with the influence of the corresponding Drivers, these three Outputs are expected to contribute to the achievement of Direct Outcome 1, as well as Direct Outcome 2: increased stakeholder cooperation and active political support by governments to holistic waste management approaches in pilot and new countries. With the help and support of the available information, as well as support provided by IETC, ISWA and the UNEP ROs, other countries would ideally be interested in improving waste management in their respective countries.

109. Outputs 5 and 6 have been reformulated and represent the three Outputs in the ProDoc of the project 534.1 and are also expected to contribute to both Direct Outcomes.

110. The Direct Outcomes are expected to lead to Project Outcome 1: national and local governments apply the waste hierarchy approach and develop holistic waste management strategies and legislative frameworks in project and new countries. Equipped with knowledge and information on holistic waste management, and with the support of IETC and ISWA, as well as regional and sub-regional bodies, the national governments can then develop holistic waste management strategies for their respective countries.

111. It is expected that the application of Project Outcome 1 in project and new countries would lead to Intermediate State 1 (and from Intermediate State 1 also to Intermediate States 2 and 3), which as such cannot be influenced by the project. Nevertheless, execution of Project Outcome 1 should logically lead to Intermediate States 1, 2 and 3, which in turn would result in illustrated Impacts 1 and 2; improved

ecosystems, biodiversity, water bodies, soil and better air quality, leading to improved environmental and health conditions in participating and new countries.

112. It should be noted that the project is responsible for achieving the Outputs and Outcomes. Intermediate States 1, 2 and 3 as well as Impact 1 and 2 are expected to be part of the longer-term possible results, and this evaluation will assess the likelihood that these results would be realized (see also chapter V Evaluation Findings – D. Effectiveness).

Drivers and assumptions

113. The ToCs in all the three ProDocs mention drivers and assumptions, although due to a lack of verbs in the formulation of the drivers and assumptions, they were not always clear and/or specific. In the ToCs they are presented for certain causal pathways, e.g. from Output to Outcome. Below all drivers and assumptions mentioned in the ToCs are presented without specifying the causal pathway. In the reconstructed combined ToC, Outputs were combined and rephrased compared to the three original ToCs, and also the Outcomes are different from those in the initial project ToCs, in order to align them with the UNEP results definition (as they were often formulated at output level and did not capture the behavioural change clearly). Similarly, the assumptions, drivers and causal pathways have also changed. However, the reconstructed combined ToC has taken into consideration the assumptions and drivers from the original ToCs in the ProDocs, below:

Assumptions:

531.1 GWMO:

- There is awareness of the challenges and opportunities in waste management, especially in developing countries;
- Capacity building institutions are established.

531.2 GPWM Secretariat:

- Developing countries receive coordinated support by international organizations;
- Legal framework and infrastructure are improved to implement the sound management of waste;
- Developing countries take full advantage of the GPWM to comply with the relevant MEAs.

534.1 Delivering integrated waste solutions at the national and local level:

- Governments are fully committed to improve waste management;
- There is cordial environment between government and stakeholders (community organizations, private sector, academia, etc.).

Drivers:

531.1 GWMO:

- Adequate levels of infrastructure;
- Investment from the public sector, donors and private sector is available.

531.2 GPWM Secretariat:

- Increased awareness of government and stakeholders for demand-driven and well-focused international efforts;
- Improvement of national legal framework on waste management;
- Improvement of national infrastructure on waste management;
- Political will to prioritize the waste management agenda;
- Decisions and resolutions on waste management by international negotiations.

534.1 Delivering integrated waste solutions at the national and local level:

- Engagement and promotion of ownership of stakeholders through stakeholder dialogues and awareness raising;
- Population aware of the hazards of littering and waste dumping, Businesses aware of turning waste into a resource, Governments are aware of benefits of managing waste and to use recovered resources as a driver for sustainable development and jobs.

114. For the combined reconstructed ToC, the following assumptions and drivers were established:

Assumptions (from Outputs to Outcomes and to Intermediate State 1)

- There is a conducive environment between government and other stakeholders (community organizations, private sector, academia, etc.);
- Local and national governments are willing to participate and retain the majority of trained staff as well as invest in the training of new staff;
- Other countries are interested in joining the efforts and partnership on waste management.

Assumptions (Intermediate Outcome to Intermediate State 1):

- Legal frameworks and infrastructure have improved to implement sound management of waste;
- Funding is made available by the governments, private sector and/or donors for scaling up implementation, awareness-raising and capacity building activities.

Drivers (from Outputs to Outcomes and to Intermediate State 1):

- Continuous active support and guidance is provided by IETC, ISWA and other project partners to increase cooperation and support waste management;
- Robust knowledge products of state-of-the-art waste hierarchy approaches and waste management are actively promoted;
- Active distribution of Regional Waste Management Outlooks (RWMOs) and GWMO documents by UNEP and partners;
- Stakeholders are concerned and interested in the hazards of littering and waste dumping, turning waste into a resource, the benefits of managing waste and using recovered resources as a driver for sustainable development and jobs;
- Active support, information and guidance is provided on a continuous basis by the UNEP ROs.

Drivers (Intermediate Outcome to Intermediate State 1):

- Current and new government(s) continue to demonstrate interest and commitment to waste management;
- Awareness-raising and capacity building activities are provided by the projects on a continuous basis;
- Financing schemes are provided by the governments, donors, private sectors for upscaling;
- Continued active international and regional cooperation and support (i.e. allocation of human and financial resources) to implement projects in waste management.

115. In the table below, a comparison between the results of the ProDocs versus the reconstructed combined ToC at evaluation, as well as a justification for reformulation, is provided:

Table 13: Comparison table between ToC in ProDocs and reconstructed combined ToC:

ProDoc		**Reconstructed combined ToC**		**Justification for reconstruction and comments**
Impact	531.1: - Countries transition to the sound management of chemicals and waste, which leads to reduced releases of harmful substances from waste. 531.2: - No emission of hazardous substances. - Reduced costs for clean-up services or closing open dumps. - High percentage of resources recovered from waste. - Further new business and employment opportunities. - No adverse effect on the environment and human health. - Wastes as resources for sustainable development. 534.1: - Countries transition to the sound management of chemicals and waste, which leads to reduced releases of harmful substances from waste. - Human health improving lower incidence of respiratory diseases, skin problems, cancers.	Long Term Impact	LTI 1: Improved ecosystems, biodiversity, water bodies, soil, and better air quality in participating countries. LTI 2: Improved environment and health conditions in the three countries.	The long-term impacts are mainly based on the ToC of project 534.1, wherein four impacts are introduced; these have been combined to reflect the pathway from intermediate states where sound waste management, reduced releases and reduced pressure on natural resources will in the long run lead to improved ecosystems, biodiversity and thus improved environmental and health conditions for participating countries. Impacts from the different ProDocs have also been used and combined in the Intermediate States of the reconstructed combined ToC (see below).

ProDoc		**Reconstructed combined ToC**		**Justification for reconstruction and comments**
	- Ecosystems improving with better ecosystem-based services, improved water bodies with fish stock, improved soil with better agriculture yield, better air quality and biodiversity. - Reduced pressure on natural resources (raw materials) due to resource augmentation by utilizing waste (waste as a resource).			
Expected accom-plish-ments	531.1, 531.2 and 534.1: - Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs. 534.1 also contributes to the following EA: - Countries increasingly have the necessary institutional capacity and policy instruments to manage chemicals and waste soundly including the implementation of related provisions in the MEAs.	Interme-diate States (IS)	IS 1: Environmentally sound management of waste (based on waste hierarchy approach) prioritizing waste avoidance, segregation for reuse and recycling, treatment and disposal in project countries. IS 2: Reduced pressure on natural resources (raw materials) due to resource augmentation by utilizing waste (waste as a resource) in project countries. IS 3: Reduced releases of harmful substances from waste in project countries.	The Intermediate States in the combined ToC are based on the Expected Accomplishments, as well as the ToCs of all three ProDocs where sound management of waste is mentioned (as either an intermediate state or an impact). The second part of both Expected Accomplishments and the objective of project 534.1 are transformed into IS 1. IS 2 is based on the impact of 534.1 and IS3 is based on impacts described in the ToC of 531.2.
Overall objec-tives	- 531.1: To provide an authoritative overview of the state of waste management around the globe and present an analysis of policy instruments – addressing the different stages of the waste hierarchy – and financing models for waste management. - 531.2: This project aims at increasing of international cooperation on waste management to support developing countries to improve their unsound management of wastes through the			

ProDoc		**Reconstructed combined ToC**		**Justification for reconstruction and comments**
	GPWM knowledge platform. 534.1: The overall Objective of this project is to create enabling conditions including behavioural changes so that waste is treated and disposed in an environmentally sound way.			
Out-comes	531.1: - Governments and other stakeholders have access to reliable and structured information on the state of waste management around the globe, particularly; and increasingly use the information to develop policies and sustainable financing mechanisms. 531.2: - International cooperation on waste management increasingly uses the GPWM as a knowledge platform. 534.1: - Improved capacity of national and local governments in developing countries to apply the waste hierarchy approach. - Stakeholder awareness and participation has increased and there is active political support to improve waste management in a holistic manner in project countries.	Out-comes	<u>Direct Outcomes:</u> 1: Increased use of available products and services by project stakeholders for policy making and implementation, and research; 2: Increased stakeholder cooperation and active political support by governments to holistic waste management approaches in pilot and new project countries. <u>Project Outcomes:</u> 1: National & local governments apply the waste hierarchy approach and develop holistic waste management strategies and legislative frameworks in project countries.	The Outcomes for project 531.1 and 531.2 have been incorporated into direct Outcome 1 of the combined ToC. The knowledge platform as mentioned in the last part of the Outcome from 531.2, has been incorporated in Direct Outcome 1 under 'project services'. Originally the GPWM Secretariat would establish this platform according to activity 2.1 of the ProDoc (Establishment of GPWM knowledge platform), in practice it was done by IETC and ISWA (in cooperation with project partners). The Direct Outcomes and Project Outcomes were rephrased to be in line with the definitions of these two concepts. Outcome 2 of project 534.1 is clearly reflected in Direct Outcome 2 of the combined ToC. Both Direct Outcomes lead to a Project Outcome, which reflects the transition to active application of the waste hierarchy approach and the development of holistic waste management strategies. Also, in the Project Outcome of the combined ToC, legal frameworks are taken into consideration as were originally reflected in component 2 of the 534.1 ProDoc and in the indicator

ProDoc		**Reconstructed combined ToC**		**Justification for reconstruction and comments**
				of Outcome 1 of the ProDoc log frame.
Outputs	531.1: 1. GWMO produced and published (main publication as e-publication; executive summary and media report as e-publication and hard publication). 2. RWMOs produced and published (e-publication). 3. GWMO and RWMOs launched and presented at different events (workshops, conferences, etc.) 531.2: 1. Generated knowledge to inform international cooperation on waste management in developing countries. 2. Secretariat services and guidance provided to the GPWM to increase international coordination in supporting waste management in developing countries. 3. Pilot solutions for emerging and complex waste streams for potential future inclusion in GPWM approach. 534.1: 1. Support the collection of state-of-the-art waste hierarchy approach knowledge, fill knowledge gaps on 3R and made knowledge products available for developing countries. 2. Support project countries to strengthen capacities for 3R/ waste hierarchy approach. 3. Promote the Replication and scaling up the waste hierarchy	Outputs	1: Gain in knowledge & awareness of stakeholders through access to the GWMO and RWMO reports. 2: Gain in knowledge & awareness of stakeholders through access to needs assessments/ reports shared via IETC, ISWA and other project partners. 3: Access to IETC and ISWA products and coordination services on waste management to international cooperation actors and governments. 4: Enhanced knowledge on complex hazardous waste streams through assessment reports, online training and pilot projects. 5: Increased knowledge of local and national governments and other stakeholders on state-of-the-art hierarchy approach, 3R and waste management. 6: Greater support and guidance provided by (sub) regional bodies and partners to developing countries to upscale the waste management hierarchy approach in developing countries.	In the combined ToC, the evaluation has considered the nine Outputs of the three projects. These Outputs needed revising in order to make them fit for an evaluation of the project's performance. Also, the Outputs of project 531.1 were combined into one Output, and the three Outputs of project 534.1 were combined into two Outputs. Output 1 of the combined ToC corresponds to Output 1-3 from project 531.1 as described in the ProDoc, Outputs 2-4 relate to the three Outputs of project 531.2, and Outputs 5-6 connect to the three Outputs of project 534.1. For the 3rd Output of project 531.2, the wording "pilot solutions" has been taken out in the combined ToC (Output 4) as this was an ambiguous formulation. Instead, the Output statement was rephrased to better align with its intention and activities. It was clear from the ProDoc activities that assessment reports and training would be developed under this output. The log frame additionally also mentions implementation of pilot projects.

ProDoc		Reconstructed combined ToC		Justification for reconstruction and comments
	approach in developing countries supported by regional/sub-regional bodies and partnerships.			

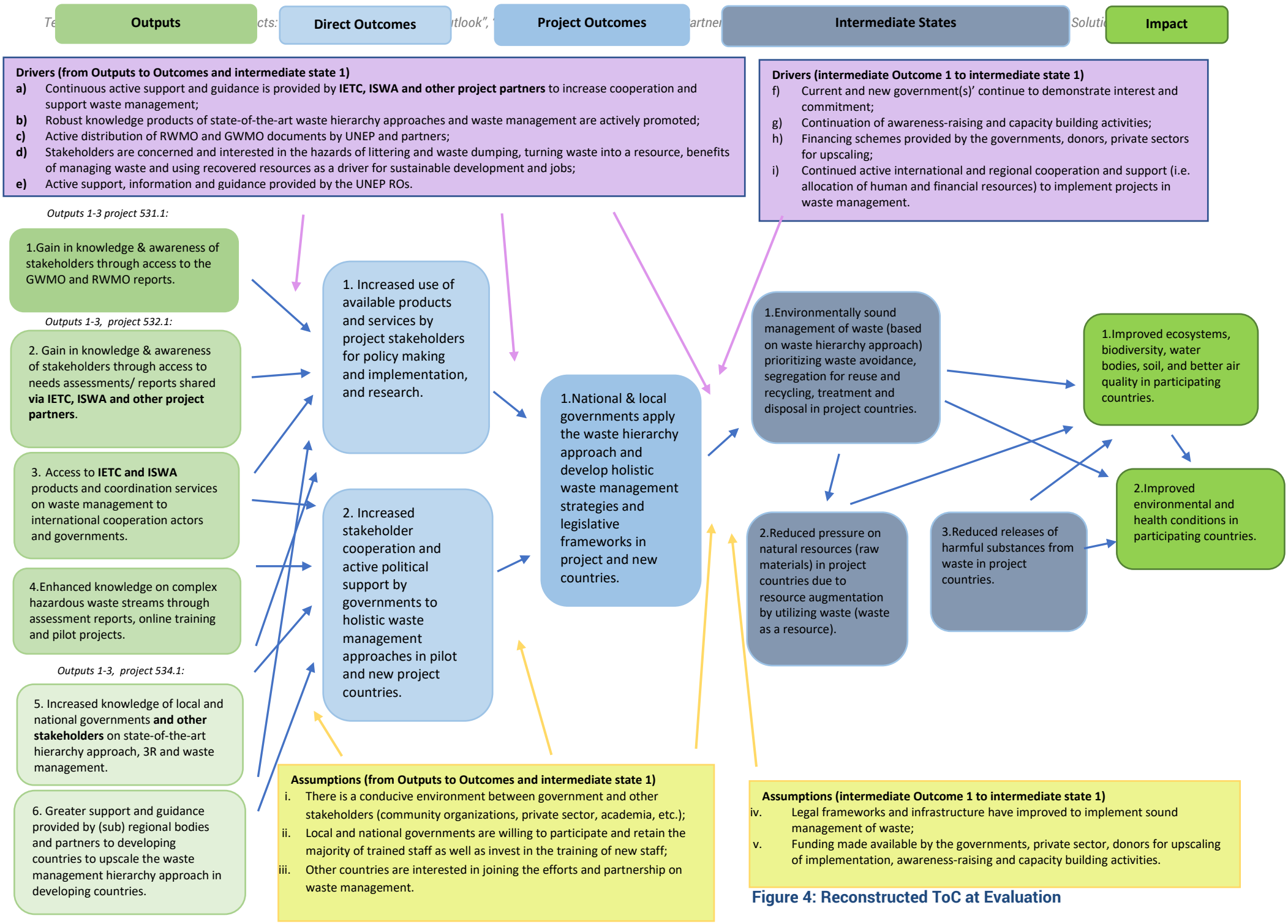


Figure 4: Reconstructed ToC at Evaluation

V. EVALUATION FINDINGS

A. Strategic Relevance

Finding 1: All three projects are aligned with UNEP MTS 2010-2013 and 2014-2017, with the PoW 2014 – 2015, and UNEP's Strategic Priorities. The Projects are fully in line with national priorities as well as donor strategic priorities, existing interventions, and with regional and sub-regional priorities.

Alignment to UNEP MTS, PoW and Strategic Priorities

116. All three projects are in line with the UNEP MTS, the PoW and Strategic priorities.

117. **United Nations Environment Assembly:** All three projects responded and were aligned to several decisions and requests from the United Nations Environment Assembly, as the UNEP Governing Council. As per the Proceedings of the 27th session of the Governing Council of the UNEP/Global Ministerial Environment Forum, at its first universal session in Nairobi, from 18-22 February 2013 [UNEP/GC.27/17, 12 March 2013], decision 27/12 related to Chemicals and Waste Management, UNEP was requested "to develop a global outlook of challenges, trends and policies in relation to waste prevention, minimization and management, taking into account the materials life cycle, subject to the availability of extrabudgetary resources and in consultation with Governments and stakeholders, building on available data, best practices and success stories, taking into account the Global Chemicals Outlook and any other relevant initiatives and taking care not to duplicate existing information, to provide guidance for national policy planning". This was addressed through project 531.1.

118. Decision 27/12 also mentions "the progress in establishing the Global Partnership on Waste Management hosted by the United Nations Environment Programme International Environmental Technology Centre and requests the Executive Director to continue to facilitate, including through this Partnership, cooperation and coordination across international efforts focusing on waste prevention, minimization, and management, taking into account the materials life-cycle and planning and implementing environmentally sound and integrated waste management strategies and activities".

119. Further, under 'VII. Enhancing cooperation and coordination within the chemicals and wastes cluster', of decision 27/12, UNEP was requested "to facilitate and support an inclusive, country-driven consultative process on the challenges to and options for further enhancing cooperation and coordination in the chemicals and wastes cluster in the long term ….". This decision sets the backdrop for the formulation of projects 531.1 and 534.1, and mentions the progress of the GPWM, as well as the request to continue the facilitation work of the GPWM. Moreover, all three projects are directly mentioned in the above decision, and aimed to achieve objectives that were in line with the above decision.

120. **Medium-Term Strategy (MTS) 2010-2013:** The following six cross-cutting thematic priorities are mentioned in the MTS for 2010-2013:

    i. Climate Change
    ii. Disasters and conflicts

iii. Ecosystem management
iv. Environmental governance
v. Harmful substances and hazardous waste
vi. Resource efficiency – sustainable consumption and production.

121. The projects are aligned with three (iv, v, vi) of the above-mentioned six cross-cutting thematic priorities. The contribution of adequate waste management to a healthy environment is indisputable. Under the thematic priority – '**Environmental governance**', UNEP's objective was to strengthen "environmental governance at country, regional and global level … to address agreed environmental priorities." UNEP was expected to, inter alia, support "governments in establishing, implementing and strengthening the necessary processes, institutions, laws, policies and programmes, to achieve sustainable development and … contribute to the evolution of norms and standards to secure the environmental basis for sustainable development." Project 534.1, under which national and local waste management strategies have been prepared is fully aligned with this objective. Within the framework of project 531.2 mercury reports and assessments have been prepared, which is fully in line with the thematic priority '**Harmful substances and hazardous waste'**. Integrated waste management is mentioned in the thematic priority **'Resource efficiency – sustainable consumption and production'**.

122. **MTS 2014–2017:** The above-mentioned six cross-cutting thematic priorities for MTS 2010-2013 are the same for MTS 2014-2017. Therefore, the projects are fully in line with the same three cross-cutting thematic priorities as mentioned above.

123. **Programme of Work (PoW) 2014–2015:** The PoW 2014-2015 includes seven priority areas, including the three thematic areas mentioned above (iv, v and vi). The projects are all in line with the PoW 2014-2015 and these thematic areas.

124. Project 531.1 and 531.2 relate specifically to PoW output 531: "Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate action on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management." Project 534.1 is connected to PoW output 534: "Support to strengthen cooperation, coordination and partnerships across the globe, including within the United Nations system, and enhance linkages and synergies among major air quality programmes and stakeholders."

Rating for Alignment to UNEP MTS, PoW and Strategic Priorities: Highly Satisfactory

Alignment to Donor Strategic Priorities

125. The projects are also fully in line with donor strategic priorities. In 1992, IETC was established in Osaka, Japan, after signing of an agreement between UNEP and the Government of Japan. This was in response to UNEP General Council (GC) decision 16/34 for its establishment in 1991. The Government of Japan is the main donor of IETC and the three projects under evaluation.

126. According to information on the website[8] of the Ministry of Environment, Japan supports projects in the Asia-Pacific region, as well as in many countries all around the world, and makes efforts to help and support the countries with issues arising due to "population growth, poverty, accelerated consumption of resources and energy due to lifestyle changes, deterioration of urban environment, etc."

127. Owing to the global economic growth – pre-COVID-19 times – as well as population growth, waste is growing all over the world, and has become a big issue to be solved. Internet research showed that also Japan, one of the main donors of the projects, is dealing with the issue of growing waste. At the same time, growing waste presents a high potential for the development and usage of advanced technologies to tackle it in a sustainable manner, amongst others, recycling. Japan is one of the leading countries with respect to such technologies. In order to provide information to deal with waste management in Japan and corresponding technologies, the Ministry of Environment prepared information materials[9] for policy makers of other countries "that are faced with waste management problems".

Rating for Alignment to Donor Strategic Priorities: Highly Satisfactory

Relevance to Regional, Sub-regional and National Priorities

128. The projects are in line with regional, sub-regional and national priorities. Several reports, articles, situation analyses, assessments and presentations at international fora confirm the serious issue of, and challenges in, waste management in all the project countries and regions.

129. According to the World Bank (2012)[10], waste is increasing very quickly and given the correlation between the rate of solid waste generation and greenhouse gas (GHG) emissions, and the linkages and inter-dependence between countries and regions, managing waste in a holistic manner in a city is a crucial service, and effects health, local and global environment via GHG emissions, and economy. Effective solid waste management is expected to have an impact on effective integration of formal and informal waste workers in low-income countries.

130. UNEP was requested by the different regions/regional organizations to prepare the RWMOs for their respective regions, for example, the Latin America and the Caribbean (LAC) countries requested UNEP to "develop a regional outlook on the main challenges, trends and policies related to integrated waste avoidance, minimization and management, so that it can be used as guidance for the design and implementation of national policies, plans, programmes and projects" [XIX Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, Los Cabos, Mexico, 11-14 March 2014]. The Interstate Commission on Sustainable Development (ICSD) in Central Asia requested IETC to prepare a regional outlook for

[8] https://www.env.go.jp/en/policy/plan/intro.html

[9] Ministry of Environment (2014): History and Current State of Waste Management in Japan and Ministry of Environment (2012): Solid Waste Management and Recycling Technology of Japan.

[10] World Bank (2012): What a Waste – A Global Review of Solid Waste Management.

its region, and the Asian Development Bank and the Association of Southeast Asian Nations (ASEAN) requested the Regional Outlook for Asia.

131. Interview data and data from the questionnaires confirmed the high relevance of the projects to all the countries and regions.

Rating for Relevance to regional, sub-regional and national environmental priorities: Highly Satisfactory

Complementarity with Existing Interventions

132. The GWMO complements several other existing environmental and/or waste management publications, such as the Global Environmental Outlook (UNEP, 2012), Towards a Green Economy (UNEP, 2011), What a Waste: A Global Review of Solid Waste Management (World Bank, 2012), and Solid Waste Management in the World's Cities (UN Habitat, 2010).

133. The GPWM was "the need of the hour for coordination among international organizations as there was no other global level partnership on waste providing soft coordination…" (ProDoc, p.11), and the objective of the GPWM was to compile and disseminate information on waste management, thus providing a complementary collaborative initiative for all other initiatives in the field of waste management.

134. The Terminal Review of Project 532.1 mentions that project 534.1 was complementary to project 532.1 - Development and deployment of waste management techniques guidance - a capacity building project on waste management implemented between January 2015 and December 2016. For example, several capacity building workshops were jointly conducted for both projects.

135. Staff from UNEP Divisions (for example, UNEP Division of Environmental Policy Implementation – DEPI (now the Ecosystems Division), the Secretariat of International Resource Panel, as well as UNEP ROs) were planned to be involved in various functions (such as in Steering Committees, for coordination, and as reviewer) in all three projects.

136. The projects are in line with International Agreements, such as the Stockholm, Rotterdam, Basel and Minamata Conventions. Some of the waste management strategies developed under project 534.1 envision a handling of waste within the country, including industrial, medical and hazardous wastes, the non-optimal handling of which releases persistent organic pollutants in the environment, so that no export or import of hazardous waste, which may include chemicals waste, by another country is necessary. Mercury inventories have been carried out, reports on mercury waste were prepared, as well as a training on mercury waste delivered online.

137. The projects complement very well with the mission and work of key project partners, for example ISWA. ISWA's mission is "to promote and develop sustainable and professional waste management worldwide"[11]. It has a vast international network of

[11] https://www.iswa.org/iswa/organisation/about-iswa/

49 national members in 49 countries worldwide, which cover all the regions of the world. It works towards awareness-raising on waste management, as well as the promotion of best available technologies and practices, via, inter alia, capacity building, publications, professional events, cooperation with relevant partners, projects, awareness-raising.

Rating for Complementarity with Existing Interventions: Highly Satisfactory

Rating for Strategic Relevance: Highly Satisfactory

B. Quality of Project Design

Finding 2: Project design for all projects contained the most relevant information as prescribed by the project document format. Key strengths were the strategic relevance, stakeholder analysis, and governance and supervision arrangements. Project design did not include adequate and comprehensive information and details on sustainability, communication, resource mobilization, and gender.

Finding 3: The ProDocs all contained inconsistencies (in e.g. the use of definitions, and also in the description of outputs, outcomes, indicators, and milestones). This made it more difficult to understand the intentionality of the projects and what IETC expected to achieve within each project.

138. A detailed review of the Project design of all three projects was carried out during the Inception Phase of the evaluation. All three project designs were rated as Satisfactory. Below a summary per project is provided:

531.1 Global Waste Management Outlook

139. The ProDoc includes a clear Problem tree, Objective tree, a ToC, a Logical Framework as well as a Risk Analysis. The Logical Framework includes indicators, targets with time frames and milestones, together with milestone delivery dates. However, the Outputs mentioned in the Logical Framework are more of accomplished Activities, for example: Output A – GWMO produced and published (e-publication). This formulation omits making the deliverable, the GWMO, available to the intended beneficiary, although access to the GWMO by identified users is implied in the causal relationship between outputs and outcomes. This is the case with the other two Outputs as well.

140. The current project was a continuation of Project Phase I of the Global Waste Management Outlook, which was a preparatory project for the GWMO. The ProDoc contains a short description of Project Phase I to provide background information on the project activities accomplished under Project Phase I. It includes a Stakeholder Analysis and also mentions the roles of participating institutions. Similarly, the ProDoc includes a Gender Analysis, as well as an Indigenous People Analysis, although the latter is quite short and generalized. Budgets for mid-term and terminal reviews/evaluations were planned, however no mid-term review/evaluation was carried out. Monitoring was to be carried out via half-yearly PIMS reporting and Steering Committee meetings.

141. Some of the Strengths and Weaknesses of the ProDoc are as follows:

Strengths:

- The ProDoc contains a clearly illustrated problem tree, Objective tree, ToC and Logical Framework; the log frame includes measurable indicators including the timeframe to achieve them;
- It includes information on how the GWMO is expected to complement other existing publications;
- It contains clear information on Strategic Relevance;
- It includes a well-detailed list of stakeholders;
- Adequate budget was planned for the mid-term review and a terminal evaluation; (however, no mid-term review took place);
- A detailed communications pack including channels and media is included.

Weaknesses:

- The sustainability strategy is not described in detail and the ProDoc does not include measures for socio-political, financial, institutional and environmental sustainability;
- The Outputs as formulated in the log frame are accomplished Activities (and not outputs);
- Monitoring is planned via half-yearly PIMS reporting, no further monitoring measures were planned;
- Communication strategy and related responsibilities after project completion were not considered.

142. Overall, project design is considered to be Satisfactory. Most of the criteria have been rated as Satisfactory, Strategic Relevance as Highly Satisfactory, and the lowest rating is Moderately Unsatisfactory for Sustainability / Replication and Catalytic Effects.

143. The ratings table is as follows:

Table 14: Ratings table project 531.1

	SECTION	**RATING** (1-6)	**WEIGHTING**	**TOTAL** (Rating x Weighting /100)
A	Operating Context	4	4	0,16
B	Project Preparation	5	12	0,6
C	Strategic Relevance	6	8	0,48
D	Intended Results and Causality	5	16	0,8
E	Logical Framework and Monitoring	5	8	0,4
F	Governance and Supervision Arrangements	5	4	0,2
G	Partnerships	4	8	0,32
H	Learning, Communication and Outreach	4	4	0,16
I	Financial Planning / Budgeting	5	4	0,2
J	Efficiency	5	8	0,4
K	Risk identification and Social Safeguards	4	8	0,32
L	Sustainability / Replication and Catalytic Effects	3	12	0,36
M	Identified Project Design Weaknesses/Gaps	5	4	0,2
			TOTAL	**4.6**

			SCORE:	

Notes: Six point rating scale consists of: 1 (Highly Unsatisfactory): < 1.83; 2 (Unsatisfactory): >= 1.83 < 2.66; 3 (Moderately Unsatisfactory): >=2.66 <3.5; 4 (Moderately Satisfactory): >=3.5 <=4.33; 5 (Satisfactory): >4.33 <= 5.16; 6 (Highly Satisfactory): > 5.16

531.2 Secretariat Support to the Global Partnership on Waste Management

144. The project was generally well designed. Especially the project approach is elaborately explained, including a clear Problem and Objective tree. Also, the project background and justification are convincingly described. The description of activities, the ToC and the log frame together make it clear how the project is set up and what it aims to achieve. The ProDoc is however not always very well written and would have been clearer and easier to understand if it had been (better) edited.

145. The project preparation phase and stakeholder consultation process are not described. The budget is considered adequate, but abbreviations used are not explained and it is not made clear how unsecured funding would be secured during project implementation. Also, there is only little information and explanation provided on learning, communication and outreach, whereas this is an important part of the project. A clear communication plan is missing.

146. In summary, the ProDoc contains the following strengths and weaknesses:

Strengths:

- The ProDoc contains a complete problem and situation analysis and explanations on Strategic Relevance;
- The project contains a ToC, problem and Objective tree, description of activities and log frame, which together provide a credible analysis of how the project is set up and what it aims to achieve;
- The project background and justification are well explained;
- Sustainability is well assessed and explained in the ProDoc.

Weaknesses:

- There is no description of the preparation phase and consultation process;
- It could have been better explained how unsecured funding would be secured during project implementation;
- It is clear what the project aims to achieve, but the Output statements were not always clear and not consistent with the planned activities (this applies most specifically for Output 3);
- The chapter on Public Awareness and Communication in the ProDoc did not sufficiently elaborate and explain the aspects of learning, communication and outreach.

147. The overall rating of the project design is rated as Satisfactory. Most sections were rated as Satisfactory, one rating for Strategic Relevance as Highly Satisfactory, and the following four sections as Moderately Satisfactory; Operating Context, Intended Results and Causality, Sustainability / Replication and Catalytic Effects, and Financial

Planning and Budgeting. The section on Learning, Communication and Outreach was rated as Moderately Unsatisfactory.

Table 15: Ratings table project 531.2

	SECTION	RATING (1-6)	WEIGHTING	TOTAL (Rating x Weighting /100)
A	Operating Context	4	4	0,16
B	Project Preparation	5	12	0,6
C	Strategic Relevance	6	8	0,48
D	Intended Results and Causality	4	16	0,64
E	Logical Framework and Monitoring	5	8	0,4
F	Governance and Supervision Arrangements	5	4	0,2
G	Partnerships	5	8	0,4
H	Learning, Communication and Outreach	3	4	0,12
I	Financial Planning / Budgeting	4	4	0,16
J	Efficiency	5	8	0,4
K	Risk identification and Social Safeguards	5	8	0,4
L	Sustainability / Replication and Catalytic Effects	4	12	0,48
M	Identified Project Design Weaknesses/Gaps	5	4	0,2
			TOTAL SCORE:	**4,64**

Notes: Six point rating scale consists of: 1 (Highly Unsatisfactory): < 1.83; 2 (Unsatisfactory): >= 1.83 < 2.66; 3 (Moderately Unsatisfactory): >=2.66 <3.5; 4 (Moderately Satisfactory): >=3.5 <=4.33; 5 (Satisfactory): >4.33 <= 5.16; 6 (Highly Satisfactory): > 5.16

534.1 Delivering integrated waste solutions at the national and local level

148. The ProDoc includes a problem tree, Objective tree, a ToC, a Logical Framework as well as a Risk Analysis. The Logical Framework includes indicators, targets with time frames and milestones, together with milestone delivery dates. However, the Outputs mentioned in the Logical Framework were formulated like Activities, for example, Output A – Support the collection of state-of-the-art waste hierarchy approach knowledge, fill knowledge gaps on 3R and make knowledge products available for developing countries.

149. The project preparation phase is not described in the ProDoc. The ProDoc includes a Stakeholder Analysis table which also contains Strengths and Weaknesses of the stakeholders and their foreseen role in the project. It includes a Gender Analysis, as well as an Indigenous People Analysis, although the latter is short and generalized. It also encompasses a Risk Analysis, Monitoring Plan as well as an Evaluation Plan. Budget for both Monitoring and Evaluations is planned in the ProDoc.

150. Some of the Strengths and Weaknesses of the ProDoc are as follows:

Strengths:

- The ProDoc contains a clear illustration of the envisaged causal path aimed by the project via a Problem tree, Objective tree, ToC and Logical Framework; the log frame includes measurable indicators and project milestones to be achieved, as well as the expected milestone delivery dates;

- It contains adequate information on Strategic Relevance;
- It includes a well-defined stakeholder analysis as well as gender analysis;
- Budget has been adequately planned for monitoring as well as mid-term and terminal evaluations.

Weaknesses:

- The sustainability strategy is not described in detail and does not include measures for socio-political, financial, institutional and environmental sustainability;
- Accomplished Activities have been formulated as Project Outputs and there are inconsistencies between the logical frame text and the narrative in the ProDoc;
- The risk of non-availability of funds for implementation, upscaling and replicability was not mentioned in the ProDoc;
- The resource mobilization strategy could have included more information on funding expected from UNEP as well as other sources of funding;
- A communication strategy and responsibility after project completion were not elaborated.

151. Overall, the ProDoc is considered to be Satisfactory. Most of the criteria have been rated as Satisfactory, Strategic Relevance and Governance and Supervision Arrangement as Highly Satisfactory, and the lowest rating - Moderately Satisfactory - for Operating Context, Learning, Communication and Outreach, Financial Planning / Budgeting, Risk Identification and Social Safeguards, and Sustainability / Replication and Catalytic Effects.

Table 16: Ratings table project 534.1

	SECTION	**RATING** (1-6)	**WEIGHTING**	**TOTAL** (Rating x Weighting)
A	Operating Context	4	4	0,16
B	Project Preparation	5	12	0,6
C	Strategic Relevance	6	8	0,48
D	Intended Results and Causality	5	16	0,8
E	Logical Framework and Monitoring	5	8	0,4
F	Governance and Supervision Arrangements	6	4	0,24
G	Partnerships	5	8	0,4
H	Learning, Communication and Outreach	4	4	0,16
I	Financial Planning / Budgeting	4	4	0,16
J	Efficiency	5	8	0,4
K	Risk identification and Social Safeguards	4	8	0,32
L	Sustainability / Replication and Catalytic Effects	4	12	0,48
M	Identified Project Design Weaknesses/Gaps	5	4	0,2
			TOTAL SCORE:	**4.8**

Notes: Six point rating scale consists of: 1 (Highly Unsatisfactory): < 1.83; 2 (Unsatisfactory): >= 1.83 < 2.66; 3 (Moderately Unsatisfactory): >=2.66 <3.5; 4 (Moderately Satisfactory): >=3.5 <=4.33; 5 (Satisfactory): >4.33 <= 5.16; 6 (Highly Satisfactory): > 5.16

Rating for Project Design: Satisfactory

C. Nature of the External Context

Finding 4: The nature of external context did not affect the implementation of project 531.1 and 531.2. Political changes and processes, however, delayed the development and approval of several waste management strategies under project 534.1.

152. **Project 531.1:** External factors such as natural disasters, conflicts, unexpected political upheaval are not mentioned in the risk analysis in the ProDoc, as it might be expected that these factors would not have any influence on the preparation of the WMOs. The natural disasters affecting several regions for which RWMOs have been prepared, for example the SIDS or mountain regions, did not have any adverse effects on the development of the respective WMOs. Moreover, political factors were not reported to be non-favourable and active support from the political arena was reported in most cases. Since the WMOs covered almost all the regions of the world, during the duration of preparation of the WMOs, elections would have taken place in some countries and/or changes in governments; nevertheless, respondents and interviewees did not report that these factors had any adverse effect on the development of any of the WMOs. Similarly, the evaluation team did not find any indications that infrastructure, economic or other existing conditions in the countries covered by the WMOs presented challenges to the preparation of the WMOs.

153. **Project 531.2:** The ProDoc Risk Analysis Table mentions that "Governments and/or other stakeholders may not participate in/give commitment to the focal areas of the GPWM", which may be caused due to unexpected political changes. Nonetheless, collaboration amongst the various partners within the framework of this project is not reported to have been influenced by any conflicts, natural disasters or political upheaval.

154. **Project 534.1:** "Change in governments where new governments may want to undo the work of previous governments" was mentioned in the ProDoc Risk Analysis as a risk, with medium impact severity and low likelihood. The mitigation measure as described in the Risk Analysis was to "monitor the political situation in countries and avoid selecting politically unstable countries". Of course, avoiding selecting any politically unstable countries cannot really be considered a mitigation measure. This may be possible before a project commences, however, then the question would arise about the extent to which it is possible to avoid certain countries, which may have requested assistance, despite being politically unstable. This issue is open for discussion and to be decided by UNEP and not a focus for this terminal evaluation.

155. **Project 534.1** operated at the national and/or city level. Political changes could be expected to have an influence on project implementation, for example, some delays could be expected due to the change of government, changes in government policies and priorities, and staff turnover of government officials. Some of the stakeholders involved in the development of waste management strategies reported to the evaluation team that these political factors caused delays in the development and approval process of the strategy in their country.

Rating for Nature of the external context: Favourable

D. Effectiveness

Availability of Outputs

<u>Finding 5:</u> The services and knowledge products developed by IETC and its project partners have contributed to a gain in knowledge and awareness raising of all project stakeholders and beneficiaries. In addition to the GWMO and 7 RWMOs, several reports and guidelines on legislative frameworks, e-waste, and mercury were prepared, are publicly available and are being used by key stakeholders. Gains in knowledge and awareness related to these documents are less well documented than for the GWMO and RWMOs.

<u>Finding 6:</u> Lack of accurate, updated and harmonized data and databases on waste (management) within and across regions, including by types of waste, and the lack of homogenization of definitions of waste affected the preparation of the WMOs. The authors ensured that these limitations did not have an adverse effect on the quality of the publications.

<u>Finding 7:</u> Three curricula on holistic waste management have been prepared and (parts) of the curriculum are taught by universities in the Asia Pacific, African and LAC region. Within two universities, the curricula have been included in Master programmes.

<u>Finding 8:</u> The UNEP RO in the LAC region, together with IETC, have set up a useful and still active cooperation with regional organizations and the LAC university consortium to improve the situation on waste management in the region. The university consortium on waste management in the LAC region has been formalised and continues to be very active.

<u>Finding 9:</u> The cooperation of IETC with the project implementation partners and regional organizations worked well; the partners had specific expertise and knowledge, and well-established networks in the countries and regions, which contributed to effective implementation of activities.

<u>Finding 10</u>: The formal GPWM Secretariat envisaged under project 531.2 was not established as IETC considered that it had no added value. This major change was not documented in a revision. Instead, IETC together with ISWA continued to provide the services and deliver the knowledge products which were foreseen to be delivered by the GPWM Secretariat. This decision had no negative impact on the performance of the project.

156. Achievement of Outputs was assessed based on the reconstructed ToC, as follows:

157. **Output 1. Gain in knowledge and awareness of stakeholders through access to the GWMO and RWMO reports** has been assessed as fully delivered. All reports were prepared and distributed via different websites and authors involved in the development of the Outlooks. Interviewees and respondents to the questionnaires acknowledged the good quality of the Outlooks and confirmed that they are actively used as reference documents.

158. The following 8 Outlooks were prepared:

- Global Waste Management Outlook (GWMO);
- Africa Waste Management Outlook;

- Asia Waste Management Outlook;
- Central Asia Waste Management Outlook;
- Small Island Developing States Waste Management Outlook;
- Waste Management Outlook for Latin America and the Caribbean;
- Waste Management Outlook for Mountain Regions;
- Waste Management Outlook for West Asia.

159. The GWMO was completed and launched in September 2015, while the 7 RWMOs were launched between 2016 and 2020. IETC was responsible for supervising the preparation of the Outlooks and, for some regions, UNEP ROs were responsible for coordinating the development of regional outlooks. The authors were in contact with the lead author, who in turn was in contact with IETC for coordination. Several reviewers, from IETC, ISWA, authors of other Outlooks, members of the Steering Committee and other stakeholders reviewed the drafts before each of them was finalised. Some of the authors pointed out that the review process included many reviewers, took a long time, and several changes were suggested, which in their opinion were not initially foreseen.

160. Regional information included in the WMOs was based on literature review, data from the countries, as well as case studies. In-country coverage in the RWMOs differs from country to country, due to lack of a harmonized approach and inconsistency in data collection. This was also mentioned by several respondents to the questionnaire. As pointed out by an interviewee, "data in the field of solid waste management were notoriously difficult to obtain", as it was collected by different stakeholders within countries, such as district-level municipalities, industries generating waste and companies providing waste services. Moreover, not all institutions were open to sharing data.

161. In some cases, tables are included with comparative data from different countries, for example table 4.1 - Summary of introduced and imminent regulatory action on single-use plastic products - in the Africa WMO, which illustrates the said policy and its corresponding features for 30 countries. The case studies illustrate examples which other countries may use for their own waste management. The RWMOs also contain conclusions and recommendations for the region. These are not country specific but give an idea about some of the common crucial areas for improvement in the region. According to authors, it was not possible to carry out the comparisons uniformly for all countries due to lack of data. Further, it was not always clear if the data could be relied on. Nevertheless, based on their expertise, the authors assessed the availability, accessibility, quality and reliability of data and used the data accordingly in the GWMO. Interviewed stakeholders as well as the respondents to the questionnaire have emphasized the high quality of the WMOs. A summary of responses to the questionnaire is provided in Annex V.

162. The GWMO executive summary was translated into all six official UN languages. The GWMO and the seven RWMOs were mostly actively distributed. The different reports were made available on different websites, including UNEP, IETC, ISWA, researchgate.net and the knowledge platform http://knowwaste.net, developed by AIT under project 531.2. The evaluation team looked at the number of downloads of the GWMO and RWMOs via the UNEP website (see table 18). However, it is difficult to

draw conclusions based on this, as the number of downloads and unique visitors of the other websites are not known. Also, the GWMO and RWMOs were distributed through other sources, such as via the authors and other organizations involved in the development of the Outlooks.

163. The evaluation found that both the GWMO and RWMOs are regularly used as reference documents and were for instance actively used in the development of national and city waste management strategies, as well as for the development of the university curricula under project 534.1. The use of the GWMO by countries, civil society, and the private sector was also documented in the assessment prepared by an external consultant for IETC in 2017 '"Results based evaluation of the impacts of guidelines and other IETC's activities on waste management policies and practices". Further, it was mentioned by some of the interviewees as well as respondents to the questionnaire that the corresponding RWMO was being used as course material for different courses, including at university level.

164. Based on triangulated data from interviews and questionnaires for the Outlooks, WM strategies and university curricula, the evaluation team concludes that the GWMO has made a substantial contribution to enhancing understanding of waste management, especially with respect to policy and financial mechanisms, as well as being used as reference for the preparation of the waste management strategies and the university curricula. The RWMOs have been successful in providing insights into waste data, gaps in waste management in the regions, as well as policy recommendations of waste management in the respective region. The GWMO and RWMOs together have contributed to improving knowledge and awareness of stakeholders on issues regarding waste management.

165. **Output 2. Gain in knowledge & awareness of stakeholders through access to needs assessments/reports shared via IETC, ISWA and other project partners** has been assessed as partially delivered:

166. Under this Output guidelines and reports were prepared and distributed via different channels, inter alia, the websites of IETC, UNEP, ISWA, http://knowwaste.net, and during various events, including the Annual ISWA World Congress.

167. This Output refers to the original output 1 of project 531.1 ("Generated knowledge to inform international cooperation on waste management in developing countries"). The reports and guidelines developed include the following:

- E-waste business plan;
- Hazardous Waste Management Business Plan;
- Metal Recycling Business Plan;
- Needs Assessment Study on Capacity Building on Waste Management;
- Global Mercury Waste Assessment;
- Waste Management Initiatives at Global and Regional Level - Second Assessment Report;
- Major International Waste Management Programmes and Projects - Second Assessment Report;
- Report on Financing on Development and Technology Transfer, A Review Focused on Waste Management Related Needs and Corresponding Supply by International Organizations;

- Assessment on Key National Stakeholders and their Roles in Mercury Management and Institutional Interest and Capacities.

168. Although it is clear that the above assessment reports and guidelines have been developed and were distributed by IETC and project partners, the evaluation team has not found clear evidence on how these reports contributed to a gain in knowledge and awareness of stakeholders. While the original output only refers to "generated knowledge to inform international cooperation" and does not include gains in awareness and knowledge of stakeholders, knowledge in itself can only happen when an individual obtains an understanding of a subject, not when you merely publish a report or publication. Therefore, the evaluation team assesses this output as partly delivered.

169. **Output 3. Access to IETC and ISWA products and coordination services on waste management to international cooperation actors and governments** has been assessed as fully delivered.

170. This output corresponds to the original output 2 of project 531.2 ("Secretariat services and guidance provided to the GPWM to increase international cooperation in supporting waste management in developing countries"). IETC concluded that the GPWM Secretariat did not have a great added value to the cooperation between international stakeholders and that cooperation would be continued on an ad-hoc basis, especially under the umbrella of expertise, network and cooperation provided by ISWA, together with IETC. ISWA, which had already been strongly engaged in the field of waste management and has a vast network, together with IETC, continued to deliver the services and knowledge products that were foreseen to be delivered by the GPWM Secretariat. The main other activities that were planned to be executed within project 531.2 were implemented, and although the GPWM Secretariat was not formally set up, this did not hamper the implementation of these activities.

171. In addition to the project partners' websites, for example, IETC, UNEP, ISWA, and others, which contain several reports on waste management, a website was created http://knowwaste.net by AIT (accessed by the evaluation on 29 June 2020). Data on the website is well presented, although it does not seem to be maintained and updated on a regular basis; the latest reports that have been uploaded are from the year 2017. It contains data from all the countries covered in the GWMO and the RWMOs about different categories and types of wastes, as well as the existing legal framework and policies in countries. Other related thematic areas covered are waste and climate change, waste agricultural biomass, integrated solid waste management, e-waste management, marine litter, waste minimization, hazardous waste management, metal recycling, including, under each thematic area, policy examples from some countries as well as example reports and case studies on related topics.

172. The projects were also presented and discussed at the ISWA Annual Congress, for example, the Global Waste Management Outlook was launched at the ISWA Annual Congress in September 2015. Moreover, biennium conferences were planned to be organized under this Output. As per information received, conferences or Private Sector Dialogues, as they were thereafter called, were organized and are still continuing.

173. Reported meetings and/or workshops that took place during the project are as follows:

Table 17: Reported meetings and workshops 531.2

Meeting/ workshop date	Meeting/ Workshop Title
16-17 December 2015	Workshop on Environmentally Sound Management of Mercury Wastes
17 December 2015	Biennium Meeting on GPWM
16-18 December 2015	Regional Inception Workshop on Minamata Initial Assessment
September 2016	Steering Committee Meeting of GPWM
October 2016	Special Session of the GPWM
November 2016	Core Group Meeting of Mercury Waste Project
December 2016	Project meeting on Environmentally Sound Management of Mercury Wastes

Source: Operational Completion Report 531.2, September 2020.

174. According to the Operational Completion Report of project 531.2, in 2017, "… the GPWM was considered to have matured sufficiently that formal partnership meetings could be replaced with a combination of coordinated and ad-hoc demand driven cooperation between the partners". Further, the work and activities of ISWA as well as the Annual ISWA Congress were deemed to present an adequate forum to continue the partnership and its activities on waste management, as it is usually attended by several relevant actors in waste management, inter alia, UN Agencies, governments, NGOs (Non-Governmental Organizations), CSOs (Civil Society Organizations), research institutes, as well as the private sector.

175. **Output 4. Enhanced knowledge on complex hazardous waste streams through assessment reports, online training and pilot projects** has been assessed as partially delivered.

176. Under this output, a study on environmentally sound management of mercury waste, mercury inventories, as well as a training on hazardous waste management have been carried out. The work under this output, originally related to output 3 of project 531.2, has overlaps with output 6 linked to project 534.1. Both outputs focused in part on mercury waste. Hence, the Operational Completion Reports for both projects mention the report "Regional Study on Mercury Waste Management in the ASEAN Countries" as a report produced within these projects.

177. IETC produced the "Global Mercury Waste Assessment – Review of Current National Measures" in 2017. The assessment describes mercury waste management practices in 30 countries and the European Union. The report provides a basis for understanding the size and nature of the gap between existing practices and the environmentally sound mercury waste management envisioned in the Minamata Convention. The document states that the central finding is clear and that the gap between the provisions of the Minamata Convention and the current mercury waste management practices is still wide. The report was published in all six UN languages.

178. The "pilot projects", also referred to as "pilot solutions" in the ProDoc, constituted in fact three inventories on mercury that were conducted in Cambodia, Pakistan and the Philippines. For the three inventories, a report was prepared.

179. A training on mercury waste was subcontracted to the organization Zoï Environment Network. The e-course was launched online in September 2017 as a self-paced

course. Following a review of the website[12] http://www.mercurywaste.org/, the evaluation team considers it to be very informative. The 'Training course on Environmentally Sound Management of Mercury Waste', which in included there, explains the types and sources of mercury waste, environmentally sound management options, handling, transport and storage, recovery, disposal, and management of sites contaminated with mercury waste.

180. As with output 2, the evaluation team did not receive enough evidence on whether and how these reports led to a gain in knowledge of waste management stakeholders. Therefore, this output is also assessed as partially delivered.

181. **Output 5. Increased knowledge of local and national governments and other stakeholders on state-of-the-art hierarchy approach, 3R and waste management** has been assessed as fully delivered. The main activities that were implemented to lead to the delivery of this Output were the development of university curricula and the development of waste management strategies at national and city level. The analysis of performance against this output is therefore based on 115 responses from project partners and university representatives (see Evaluation Methods section for details).

182. Three university consortia - one in the Asia Pacific, one in Africa and one in the LAC region - developed a holistic university curriculum on waste management. All consortia were supported by IETC, together with an implementing partner; for the Asia Pacific this was AIT, for Africa this was the UNEP Regional Office in Nairobi and for the LAC region this was the UNEP Regional Office in Panama. ISWA also provided valuable inputs to the curricula.

183. Most stakeholders appreciated the level of support, inputs and feedback provided by IETC, AIT, and the UNEP Regional Offices in developing the curricula. According to the respondents, the university curricula have been essential in increasing the knowledge on waste management within the universities of the three consortia. However, only two universities have internalized the curriculum into their Master programme (one in the Asia Pacific and one in the LAC region). At all other universities, the curricula have been taught in short (postgraduate) courses and training workshops. The curricula are important for the universities, and other waste management stakeholders in the regions, as they considered regional context and approach waste management in a holistic manner.

184. The feedback from questionnaires and interviews also showed that the consortia in the Asia Pacific and African regions are not functioning as a consortium anymore, although several universities are still in contact. The consortium in the LAC region is still very active and was formalised as the *University Consortium for the Sustainable Management of Solid Waste in Latin America and the Caribbean*. They have a workplan in place for 2021-2022 and have plans to extend the consortium. The main reason why the other consortia are no longer (very) active are lack of funds and time.

185. Respondents to the questionnaire also highlighted several recommendations to extend the consortia, and thus to support increase of knowledge within other

12 Accessed on 29 June 2020; the website has not been accessible anymore since then.

universities and countries, and to improve the curricula. These include: (i) for UNEP to help secure more funding to be able to extend the curriculum to other universities, (ii) to allocate funding to set up scholarships, so students can visit and study at different universities, (iii) for the current consortium members to publish books on waste management, (iv) to develop online courses, (v) to have more exchange of experiences with the consortia in other regions, and (vi) to update the curriculum regarding emerging waste streams.

186. As for the waste management strategies, fifteen countries fully developed waste management strategies within project 534.1, covering in total 13 national, 11 city strategies and one state strategy, with support from IETC, the UNEP ROs, ISWA and other institutions such as AIT, IGES, GEC and the Asia Foundation.

187. Based on the feedback received through questionnaires and interviews, the evaluation found that in total 9 strategies have been officially approved, 11 strategies were not (yet) adopted and for 6 strategies it is unclear. The evaluation also found that there has been active follow up, through the implementation of the strategy and setting up of pilot projects, for only 5 city and 3 national strategies.

188. Most stakeholders appreciated the level of support provided by IETC and its implementing partners in developing the waste management strategies. The feedback received by the evaluation indicates that the preparation of the strategies, even though they have not yet been implemented, contributed to a change in the mind set of people in project countries related to waste, and increased the knowledge and awareness of the stakeholders on how to manage waste. The development of the strategies also contributed to concrete changes, such as the establishment of better accountability of waste collection services, or improvements in recycling services.

189. Stakeholders also highlighted several challenges faced in the development of the strategies, including: i) high staff turnover within the government organisation, ii) insufficient budget and time to develop the strategies, and iii) the lack of adequate data and statistics on waste management.

Output 6. Greater support and guidance provided by (sub) regional bodies and partners to developing countries to upscale the waste management hierarchy approach in developing countries has been assessed as fully delivered.

190. According to the Operational Completion Report (2020), the following work with regard to partnerships with regional bodies and partners has been carried out. A non-formalised collaboration was established with the Association of Southeast Asian Nations (ASEAN) Secretariat for replicating and upscaling project results in the ASEAN region. Within the framework of this collaboration on general waste, e-waste and mercury waste, the following three studies/reports were prepared:

    - Regional Study on Mercury Waste Management in the ASEAN Countries;
    - Waste Management in ASEAN Countries – Summary;
    - Compendium of Technologies for the Recovery Materials from E-Waste.

191. The Risk Analysis table in the ProDoc of project 534.1 states that the sub-regional bodies, such as ASEAN and ICSD were to inform their member states "to

institutionalize waste management strategies and action plans", as a risk management strategy to counter the stated risk of the waste management strategies and action plans not being implemented after project completion. According to the project team, as well as ASEAN's website[13], ASEAN recognizes the serious challenges posed by waste management, and hence is one of the relevant areas of cooperation on environment. In this context, ASEAN cooperates with UNEP on the Sustainable Consumption and Production Programme, and has a Working Group on Chemicals and Waste. It has cooperated with UNEP/IETC, AIT and the BCRC for Southeast Asia to conduct several studies on solid waste, e-waste and mercury waste in ASEAN countries. It issued the ASEAN Joint Declaration on Hazardous Chemicals and Waste Management[14] in 2016 to show its commitment to the issues of chemicals and waste management in the ASEAN region.

192. In the LAC region, a cooperation on waste and air quality was initiated based on a Memorandum of Understanding (MOU) with the Inter-American Association of Environmental Engineering (AIDIS), which was signed in September 2016. The AIDIS network contributed to the LAC Waste Management Outlook and UNEP presented its project results in their regional waste congresses. The cooperation is still effective, and the UNEP RO in Panama continues organizing capacity building activities and other activities on waste related issues with ABRELPE (see below) and AIDIS, e.g. on COVID-19 waste.

193. For the promotion of sound management of municipal organic waste in the LAC region, a partnership was initiated with the representative organization of ISWA Brazil, ABRELPE (Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais). This partnership is currently still very active. ABRELPE is also a member of the LAC Coalition for the progressive closure of dumpsites. According to an interviewee, the cooperation with ABRELPE was instrumental to gather the necessary know-how and advocate on the need to address organic waste as a priority waste stream in the region, as well as to engage and reach out to relevant stakeholders.

194. An agreement was established with the Government of the Netherlands for carrying out work on regional approaches for waste management in the Dutch Caribbean Antilles and the wider Caribbean. IETC could not provide any further details on the partnership and what activities were implemented.

Rating for Availability of Outputs: Satisfactory

Achievement of Project Outcomes

<u>Finding 11:</u> The knowledge products prepared by IETC and its partners were used as reference documents to develop university curricula and waste management strategies in 3 regions. Especially the GWMO and the 7 RWMOs are actively used as reference documents by a broad range of stakeholders.

[13] https://environment.asean.org/awgcw/
[14] https://asean.org/storage/2017/11/Annex-2_Joint-Declaration-HCWM-Adopted-by-AMME.pdf

Finding 12: In general, governments of countries showed active engagement during the development of Outlooks, as well as the development of waste management strategies. Cooperation between governments and other stakeholders increased during the implementation of project activities.

Finding 13: The developed waste management strategies in 15 countries (13 national, 11 city waste management strategies and one state strategy) were not fully implemented during the project duration. For 8 strategies, small pilot projects have been executed, and not all strategies have been approved by the respective governments. This has hindered the application of the waste hierarchy approach and the environmentally sound management of waste by participating national and local governments. There is limited evidence of upscaling and/or replication of the strategies within participating countries.

195. **Direct Outcome 1: Increased use of available products by project stakeholders for policy making and implementation, and research.** The evaluation team considers that this first Project Outcome was fully achieved:

196. As described under the delivery of outputs, many knowledge products, including the GWMO and RWMOs, were developed and used by project stakeholders. The interviews and responses to the questionnaires confirm that these materials (mainly the Outlooks) were actively used as reference documents, e.g. during the preparation of city and national waste management strategies, for the preparation of the university curricula, and as training material for courses. According to some of the authors of the Outlooks and respondents to the university curricula, the Outlooks have also been used for research purposes.

197. The report prepared by IETC "Results based evaluation of the impacts of guidelines and other IETC's activities on waste management policies and practices" confirms the use of the GWMO and other IETC guidelines by governments, CSOs and the private sector. This report, however, did not assess the use of the RWMOs.

198. The evaluation team collected data on downloads of the GWMO/RWMOs from the UNEP website. Authors mentioned that the WMOs were downloaded from other websites also, including the IETC website, knowwaste.net, Researchgate, Academia, however download figures from other sites were not available for all the outlooks. Based on the number of downloads no definite conclusions can be drawn on the change in knowledge or the use of the guidelines and reports by stakeholders but the number of downloads could provide an indication on the level of interest in these documents.

199. The download data from the UNEP website, between August 2017 and August 2020, is presented in Table 19. According to these figures, the two reports with the highest number of downloads are the GWMO (5,453 downloads) and the LAC WMO in Spanish (1,853 downloads).

Table 18: Overview of WMO downloads UNEP website

DOCUMENT	1ST AUG 2017 – 1ST AUG 2018	2ND AUG 2018 – 1ST AUG 2019	2ND AUG 2019 – 1ST AUG 2020	TOTAL
Global Waste Management Outlook	649	1328	3476	5453

DOCUMENT	1ST AUG 2017 – 1ST AUG 2018	2ND AUG 2018 – 1ST AUG 2019	2ND AUG 2019 – 1ST AUG 2020	TOTAL
Africa WMO – English	0	146	0	146
Africa WMO – French	0	0	26	26
Africa WMO Summary – English	0	140	0	140
Africa WMO Summary – French	0	0	5	5
Asia WMO	0	42	134	176
Asia WMO - Summary	0	31	40	71
Central Asia WMO	0	38	128	166
Latin America WMO - EN	0	131	352	483
Latin America WMO - SP	0	744	1109	1853
Latin America WMO – Summary - EN	0	47	58	105
Latin America WMO – Summary - SP	0	155	207	362
Latin America WMO – Summary - PT	0	5	18	23
SIDS WMO - EN	0	161	159	320
SIDS WMO – Summary - EN	0	93	31	124
SIDS WMO – Summary - FR	0	0	3	3
SIDS WMO – Summary - SP	0	0	4	4
Mountains WMO - EN	0	45	18	66
Mountains WMO – Summary - AR	0	8	2	10
Mountains WMO – Summary - CH	0	0	2	2
Mountains WMO – Summary - EN	0	0	3	3
Mountains WMO – Summary - FR	0	0	0	0
Mountains WMO – Summary - RU	0	0	0	0
Mountains WMO – Summary - SP	0	0	0	0
West Asia WMO	0	0	165	165
West Asia WMO – Summary - EN	0	0	26	26

Source: UNEP Communication Division/ Digital Strategy Section - Web

200. Several other reports have been prepared within the three projects, amongst others, reports on e-waste and mercury. Interviewees and respondents to questionnaires did not specifically mention these reports. There is less information available on the use of these documents. However, respondents to the questionnaires mentioned that overall, they highly valued the support, different studies and guidelines that were prepared by IETC and the project implementation partners. Although there is no direct information available on the usage of the three reports that were prepared under output 6 within the partnership set up with ASEAN, the website of ASEAN[15] does

[15] https://environment.asean.org/awgcw/

mention waste management as an issue that the regional organization is actively working on with its member states.

201. **Direct Outcome 2: Increased stakeholder cooperation and active political support by governments to holistic waste management approaches in pilot and new project countries** was fully achieved. Project 534.1 started out with ten countries and during project implementation, new countries joined (e.g. Bahrain, Honduras, the Maldives, St. Lucia, Tanzania and Thailand) - see also chapter III – The Projects, Section A – Context.

202. The interviews and questionnaires overall substantiate that governments actively requested support in developing waste management strategies, and that the governments were overall actively involved in developing the strategies within project 534.1. A broad range of stakeholders participated in the development of many waste management strategies, such as governments, CSOs, consultants, the private sector, and vulnerable groups. Several questionnaires indicate that the cooperation between the stakeholders was at times difficult and it took efforts from all sides to work together adequately, but it was also noted that the cooperation between different stakeholders was appreciated and necessary for achieving good results.

203. **Project Outcome 1: National and local governments apply the waste hierarchy approach and develop holistic waste management strategies and legislative frameworks in project countries** was partially achieved:

204. Many respondents to the questionnaires mentioned that they are not (yet) able to manage waste in an environmentally sound manner. The strategies were developed, but not yet approved and only small pilot projects have been implemented. Respondents also noted that they need more (financial and technical) support to start implementing the strategies or fully implement the strategies, and thus in practice apply the waste hierarchy approach. More work is also needed to update and improve legislative frameworks and ensure the upscaling and replication of the strategies within participating countries, for which evidence was limited.

205. It can therefore be said that the development of city and waste management strategies - with several very good examples of strategies and policies developed - has been a valuable experience and will hopefully - and possibly within the framework of follow-up project 521.1 - lead to countries upscaling and replicating the development of strategies. However, for all countries to apply the waste hierarchy approach and (fully) turn to sound waste management practices, it is necessary for countries to (further) implement the strategies and invest in improving or updating their legislative frameworks. Only when this happens, the long-term results (the intermediate states and impacts as mentioned in the ToC) can be achieved.

206. **Drivers and assumptions from Outputs to Outcomes:** All the drivers for the causal pathways from Output to Outcome held, two out of three assumptions held, and one partially held.

Drivers:

- Active support and guidance provided by IETC, ISWA and other project partners to increase cooperation and support waste management;

- Robust knowledge products of state-of-the-art waste hierarchy approaches and waste management are actively promoted;
- Active distribution of RWMO and GWMO documents by UNEP and partners;
- Stakeholders are concerned and interested in the hazards of littering and waste dumping, turning waste into a resource, benefits of managing waste and using recovered resources as a driver for sustainable development and jobs;
- Active support, information and guidance provided by the UNEP ROs.

Assumptions:

- There is a conducive environment between government and other stakeholders (community organizations, private sector, academia, etc.);
- Local and national governments are willing to participate, retain majority of trained staff as well as invest in the training of new staff;
- Other countries are interested in joining the efforts and partnership on waste management.

207. Regarding the **drivers**, it can be concluded that IETC, ISWA, other project implementing partners and certainly also the UNEP Regional Offices provided active support, coordination and guidance. At the start of project 531.2, the GPMW Secretariat at IETC supported coordination and cooperation among countries and organizations, later on the services that were supposed to be conducted by the GPWM were implemented by IETC in cooperation with ISWA and other partners. They continued to provide active support to countries. The different Outlooks, reports and guidelines on sound waste management practices were produced and distributed. Also, the stakeholders and beneficiaries of the project in general showed active involvement and interest in waste management.

208. The driver "Active distribution of RWMO and GWMO documents by UNEP and partners" could have been stronger. Although the Outlooks were widely distributed by involved partner organizations and individual authors, interviewees and respondents noted that the communication strategy developed for the GWMO was partially implemented, more resources were needed for communication, and that the promotion of Outlooks could have been done in a more systematic manner. The same applies to the driver "Robust knowledge products of state-of-the-art waste hierarchy approaches and waste management are actively promoted". Materials such as the Outlooks and the university curricula are high quality and robust products. These materials, specifically the Outlooks, were mostly actively distributed, however not always in a structured manner.

209. Two out of three **assumptions** held, and one partially held. In general, there was a good and active cooperation between government and other stakeholders. It was mentioned a few times in the questionnaires that it was sometimes difficult to cooperate effectively, but several respondents also noted that it was important to include all stakeholders in order for results to be achieved and the cooperation between the different stakeholders was also generally well appreciated. Only in one case it was remarked that the government was not strongly involved in the

development of a strategy and only contributed with providing some data and participating in workshops.

210. Other countries and cities also started to become interested in waste management. During the project, several new countries started to develop waste management strategies, compared to what was planned at the start of project 534.1. The partnership with ASEAN brought the issue of waste management to the attention of its member states. Several questionnaires mentioned that other towns and cities have become interested in developing waste strategies and in sound waste management.

211. Regarding the assumption "Local and national governments are willing to participate, retain majority of trained staff as well as invest in the training of new staff" it is more difficult to assess if this assumption fully held in all countries. Governments were interested and wanted to participate in developing strategies or in working on waste management issues (such as the development of initial mercury inventories in Cambodia, Pakistan, and the Philippines). Thus, the first part of this assumption certainly held. However, as many strategies that were developed have not been approved yet and on a higher governmental level, priorities may change, it is not fully clear if all trained staff will be retained and/or if new staff will be trained until and after the approval (and implementation) of the strategies. Some respondents to the questionnaires noted that government staff changes frequently, which may also influence the retaining of capacity within the government.

Rating for Achievement of project outcomes: Moderately Satisfactory

Likelihood of Impact

Finding 14: Long lasting results (Intermediate States and Impacts as mentioned in the reconstructed ToC) can only be achieved if countries improve and enforce their legal frameworks, implement the strategies that they have developed within 534.1 (project outcome), and have access to financing schemes to support this implementation.

212. This evaluation assessed the likelihood of the intended, positive impact becoming a reality, using the guidance provided by the UNEP Evaluation Office (see Table 19). The likelihood of impact being achieved in the future is assessed based on the reconstructed ToC at evaluation, on whether outputs had been made available and outcomes achieved combined with an analysis of whether assumptions and drivers from outputs to impact held.

213. Based on the assessment, the achievement of impact is assessed as Moderately Likely. Not all factors for achieving full impact as foreseen have been met. In the view of the evaluation team, impact could be achieved if IETC's current follow-up project (project 521.1) focuses on improving or strengthening the results of the three projects under evaluation.

Table 19: Analysis of likelihood of impact

#	Criteria	Findings

#	Criteria	Findings
1	Drivers to support transition **from outputs to direct outcomes** are partially in place/in place/not in place	All 5 drivers were in place: IETC and the Regional Offices provided active support and guidance, and actively distributed the GWMO and RWMOs and other reports. Also, the stakeholders and beneficiaries of the project in general showed active involvement. At the start of project 531.2, the GPMW Secretariat at IETC supported coordination and cooperation among countries and organizations, later on the services that were supposed to be conducted by the GPWM were implemented by IETC in cooperation with ISWA and other partners. They continued to provide active support to countries. The driver "Active distribution of RWMO and GWMO documents by UNEP" could have been stronger. Although the Outlooks were distributed by involved partner organizations, as well as the individual authors, it was noted that the communication strategy for the GWMO was partially implemented and that more resources were needed for communication.
2	Assumptions for the change process **from outputs to direct outcomes** hold/ partially hold/ do not hold	Two out three assumptions held: government and other organizations generally worked well together and local and national governments were generally eager to participate and contribute to improving waste management. Also, additional waste management strategies were developed in new countries. As many strategies that were developed have not been approved yet and on a higher governmental level, priorities may change, it is not fully clear if all trained staff will be retained and/or if new staff will be trained until and after the approval of the strategies.
3	Proportion of outcomes fully or partially achieved	Direct Outcome 1 and Direct Outcome 2 were achieved. Stakeholder cooperation increased and generally there was active political support by governments to holistic waste management approaches (although on a higher governmental level, diverging priorities sometimes prevented waste management strategies from being approved in a timely manner). Project Outcome 1 is partially achieved. National and local governments are not actively applying the waste hierarchy approach or do not yet feel able to apply it in practice in all project countries, and not all countries have well-functioning legislative frameworks. Mostly the waste management strategies only touched on the legislative frameworks briefly. Also, no exit or follow-up strategies were prepared at the start of the development of waste management strategies, which would have contributed to the actual implementation of the strategies.
4	Which outcomes? (the most important to attain intermediate states / impact or others)	Direct Outcomes 1 and 2 have been achieved, however this has not led to the project outcome being fully achieved. As explained under point 3, countries are not always able to apply the waste hierarchy approach and more work is needed to improve legislative frameworks. As the causal pathway is from the two direct outcomes to the project outcome and on to intermediate state 1, the most important outcome to lead to long term results (intermediate states and impact) has not been achieved.
5	Level of outcome achievement (full, partial)	Based on the above, as mentioned under criteria three and four, it can be concluded that the level of outcome achievement is partial.
6	Drivers to support	The drivers from Direct Outcome to Intermediate States are partially in place. In many project and other countries there is a (continued) interest

#	Criteria	Findings
	transition **from direct outcome(s) to project outcomes to intermediate states** are not in place/ in place/ partially in place	to improve waste management. UNEP IETC, ISWA and other organizations also continue to support the strengthening of waste management practices in many countries (including several project countries). However, the respondents to questionnaires and also interviewees indicated that funding and financing schemes are often lacking and insufficient, and they lack support in getting more funding.
7	Assumptions for the change process **from direct outcomes to project outcomes to intermediate states** hold/ partially hold/ do not hold	The assumptions from outcomes (direct and project outcomes) to intermediate state partially held. Governments generally are willing to participate and cooperate. However, the legal frameworks and infrastructure have not improved (yet or sufficiently) in all project countries. Respondents to questionnaires and interviewees have indicated that after the development of their waste management strategy, not many practical works have been implemented and more work is needed to be able to say that countries are now using sound waste management practices. Also, governments, the private sector and donors are often not making enough funding available for countries to continue their work on waste management.
8	Proportion of Intermediate states achieved (none, some, all)	The intermediate states have not yet been achieved. In most countries the development of waste strategies has not yet led to sound waste management, and consequently reduced pressure on natural resources and reduced releases of harmful substances from waste in project countries has not been yet achieved.
9	Drivers to support transition from **intermediate states to impact** are not in place/ in place/ partially in place	The drivers partially hold. However, there do not seem to be adequate funding schemes in many countries to accelerate and improve waste management practices.
10	Assumptions for the change process **from intermediate states to impact** hold, partially hold, do not hold	The assumptions partially hold. However, waste management structures have not improved considerably yet. In conclusion it can be said that willingness to participate and cooperate is present, but funding, improved legal frameworks and infrastructure is in many countries still lacking.
	OVERALL RATING	**Moderately Likely**

Rating for Likelihood of Impact: Moderately Likely

Rating for Effectiveness: Moderately Satisfactory

E. Financial Management

Finding 15: The projects' financial management fully adhered to UNEP's financial policies and procedures. Available financial information was incomplete and did not provide a clear indication on how resources were used and if budget was spent effectively.

Finding 16: All three projects underspent compared to their received funding and planned budget. For project 531.2, this was due to not setting up the GPWM Secretariat; this change was, however, not recorded in any revision. The reasons for under expenditure in the other two projects are unclear. Most of the remaining resources were reallocated to follow-up project 521.1.

Finding 17: Co-finance was not documented, as this was not a requirement. This represents a missed opportunity to record partners' contributions to implementation.

Adherence to UNEP's Financial Policies and Procedures

214. IETC used UNEP's financial management systems and procedures in the management of their projects. Finances were therefore recorded in the Umoja system. The Fund Management Officer was in contact with the Financial Assistant at IETC almost daily, and also communicated with IETC's project managers and director. Allotment reports, showing the expenditure and balance of the budgets, were prepared monthly. Based on the interviews, the evaluation team found that disbursements to project partners were done in a timely manner.

215. All three projects had several budget revisions. Project 531.1 and 531.2 each had 3 budget revisions, and project 531.1 had 8 budget revisions. The budget revisions reflected new funding received from donors or allocation of funds to the respective project.

216. The budget revisions however do not reflect that the formal GPWM Secretariat was not set up, nor the transfer of all funds to other projects (mainly current project 521.1), or the transfer of all M&E costs to project 534.1. The evaluation team considers that these aspects should have been clearly reflected and recorded within revisions.

Rating for Adherence to UNEP's Financial Policies and Procedures: Satisfactory

Completeness of Financial Information

217. The financial tables are presented for each project separately, as each project had its own budget, expenditures, and funding sources.

218. The Umoja system used by UNEP IETC - that came into use when the three projects had already started - uses different budget lines than those used in the budgets of the ProDocs. It was therefore difficult to establish an expenditure ratio of planned budget versus actual expenditure. The budget lines in the ProDoc and the budget lines from Umoja cannot be completely compared, but they are to a certain extent similar. The evaluation team tried to compare ProDoc budget lines with Umoja expenses and established an expenditure ratio based on this comparison. The financial tables below provide details with and without expenditure ratio.

219. For project 531.2 and 534.1, the Fund Management Officer provided expenditures per project output, in order to compare the planned versus the actual expenditure per output. Expenditures per output were not recorded for project 531.1 as this was not possible in Umoja at the time.

220. For all three projects, no expenditures on a more detailed level, e.g. on activity level, could be provided as Umoja did not record these. It was therefore difficult for the evaluation team to assess expenditure and cost-efficiency on a more detailed level; the information available for the evaluation did not give a clear indication on how resources were used and whether the budget was spent effectively.

221. For all three projects, less funding was spent compared to the planned ProDoc budget and the actually secured/received funding. For project 531.2, it should be noted that there were no expenditures for output 2, which relates to maintaining the GPWM Secretariat. As mentioned several times, the formal GPWM Secretariat was not set up, but the tasks that were expected to be done by the Secretariat were executed by IETC and ISWA, as well as other project partners. It has therefore been suggested by interviewees that not setting up the Secretariat was in fact cost-effective, as setting up and maintaining a Secretariat would have been costly.

222. The low expenditure in all projects is reflected in the fact that for almost all budget lines and for all outputs less budget was spent than planned, and the expenditure ratios (expenditure divided by planned budget) are well below 1. Project 531.1 had an expenditure ratio of 0.70, project 532.1 an expenditure ratio of 0.20 and project 534.1 an expenditure ratio of 0.76. For projects 531.1 and 531.2, the travel costs were much higher than planned. For project 531.1, the expenditure ratio (actual versus planned) for travel was 2.54, whereas the overall project ratio was 0,7. For project 531.2, the expenditure ratio for travel was 1.33, whereas for the total expenditure of actual versus planned was only 0.2.

223. When looking at the overall expenditure ratios per output for project 534.1, it can be concluded that the costs for the output that included the development of university curricula were much lower than planned, and that the activities related to the development of waste management strategies were higher than anticipated, with expenditure ratios of respectively 0.28 and 1.33. The expenditure ratio for output 3, including the establishments of several regional partnerships was only 0.13.

224. An overall expenditure ratio per project based on the actual secured funding (expenditure divided by actual secured funding) has also been established and can be found in table 20. These ratios are also below 1, but show that the expenditure in relation to the actual secured funding (thus the actual funding received that was available for implementing the projects) are closer to 1 than the expenditure ratio based on the planned budget (see also paragraph 222). However, the ratio of expenditure divided by secured funding for project 531.2 is still low (0,4).

225. Co-finance was not documented, as this is not a requirement for UNEP projects. However, stakeholders did indicate that cash and in-kind funds had been spent at the local level for the development of the waste management strategies as well as for the implementation of small pilot projects. Not recording the co-financing provided by project partners represents a missed opportunity in terms of adequately showcasing the level of support provided by partners to project implementation.

226. The below presents the planned budget, the actual secured funding, the expenditure, and the difference between secured versus spent budget per project:

Table 20: Financial overview of the three projects, including secured and unspent funding

Project	Planned ProDoc budget (A) – US$	Actual secured Activity funding (B1) – US$	Actual secured Personnel funding (B2) – US$	Actual secured funding (B1+B2 = B) – US$	Expenditure (C) – US$	Unspent funds (B-C) – US$	Expenditure ratio (Expenditure (C)/ Actual secured funding (B))
531.1	2,333,297	1,452,822	555,560	2,008,382	1,630,239	378,143	0,81
531.2	5,496,041	1,066,950	1,693,048	2,759,998	1,110,925	1.649,073	0,40
534.1	10,189,439	7,358,024	883,782	8,241,806	7,721,588	520,218	0,94
Totals	**18,018,777**	**9,877,796**	**3,132,390**	**13,010,186**	**10,462,752**	**2.547.434**	

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer. Notes: Actual secured funding (column B) refers to the actual money received for project implementation (staff component and project activities).

227. Initially, the information received from IETC did not provide clear and complete information on how the funds that were not spent, were reallocated. The final information received showed that most (94,1%) of the remaining funds (USD 2,398,080 out of a total of USD 2,547,434 of unspent funds) were reallocated to PoW project 521.1. Funding received from Norway and Sweden via corporate UNEP agreements was returned to UNEP Head Quarters (in total USD 143,954, or 5,6% of the total unspent funds). It is not clear what happened with the remaining sum of USD 5,400 that was neither reallocated to project 521.1 nor returned to UNEP Head Quarters. It is unclear if the low expenditure was discussed within IETC and with the Fund Management Officer, and if any proposals were made (in consultation with the donors) on what could be done to lower the amounts of unspent funds (e.g. new activities or extension of existing activities). Part of the unspent funds might have been used to implement planned monitoring and reporting activities that were not executed, such as the survey on waste management strategies, the development and implementation of communication strategies, and the establishment of an Expert Group for the university curricula.

531.1 Global Waste Management Outlook

228. The total planned budget for project 531.1 was USD 2,333,297. The actual secured funding was US$ 2,008,383 and the actual expenditure was US$ 1,630,239. The total expenditure represents 69.9% of the planned budget and 81,2% of the secured funding. The below table details the project funding sources (planned versus secured funding):

Table 21: 531.1 Project Funding Sources for project:

Funding source ***All figures as USD***	Planned funding	% of planned funding	Actual secured funding	% of secured funding
Cash				
Funds from the Environment Fund				

Funding source ***All figures as USD***	**Planned funding**	**% of planned funding**	**Actual secured funding**	**% of secured funding**
Funds from the Regular Budget				
Extra-budgetary funding (listed per donor):				
Government of Japan	773,419	33.15%	1,269,092	63.19%
Government of Norway	129,000	5.53%	179,706	8.95%
Unsecured XB funding:	1,059,438	45.41%		
SIDA (Sweden)			265,451	13.22%
Sub-total: Cash contributions	*1,961,857*	*84,08%*	*1.714.249*	*85,35%*
		In-kind		
Environment Fund staff-post costs	371,440	15.92%	294,134	14.65%
Regular Budget staff-post costs				
Extra-budgetary funding for staff-posts (listed per donor)				
Sub-total: In-kind contributions	*371,440*	*15,92%*	*294,134*	*14,65%*
Total	2,333,297	100%	2.008.383	100%

Source: Operational Completion reports, and Excel files shared between the evaluation team and the Fund Management Officer. Notes: Actual secured funding refers to the actual money received for project implementation (staff component and project activities).

229. For project 531.1, expenditures per project component or output were not available for the evaluation. Table 22 presents the planned totals per project component (as presented in the full budget of the ProDoc) and the total expenditure per Umoja budget lines. Table 23 gives an overview per budget line as presented in the ProDoc, and an overview of expenditures per Umoja budget lines. As mentioned earlier, the budget lines in the ProDoc and the budget lines from Umoja are not the same, but they are to a certain extent similar. In this way some expenditure ratios could be provided, and expenditures can be compared (although on a limited level).

Table 22: 531.1 Expenditure table per component and Umoja budget lines:

Components *All figures as USD*	**Estimated cost at design**	**Actual Cost/ expenditure**	**Actual Cost/ expenditure**
GWMO publication	293,154	Travel	88,770
Regional Outlooks publications	1,746,507	Other Personnel	110,844
GWMO and RWMOs launch and dissemination	293,636	Contract Service	52,060
		Supplies, Commodity, Materials	1,224
		Transfer/Grant to IP	628,658
		IP-Indirect Support Cost	2,538
		Operating and other Direst Costs	3,020
		Equipment, Vehicles and Furniture	119
		Grants Out	49,300
		Staff cost	552,336
		13% PSC (Japan)	119,060

Components *All figures as USD*	**Estimated cost at design**	**Actual Cost/ expenditure**	**Actual Cost/ expenditure**
		8% PSC (Norway)	5,347
		8% PSC (SIDA)	16,964
Total	**2,333,297**		**1,630,239**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

Table 23: 531.1 Expenditure table per ProDoc budget lines and Umoja budget lines

Component/sub-component/output *All figures as USD*	**Estimated cost at design**	**Budget lines**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Project Personnel	**1,000,882**		**751,949**	**0.75**
Project personnel	818,584	Staff cost	552,336	0.69
Consultants Editorial Team	25,858	Other Personnel	110,844	
Administrative support	121,440			
Travel on official business	35,000	Travel	88,770	2.54
Sub-contracts	**1,008,000**		**732.556**	**0.73**
Subcontracts (MoUs/LoAs)		Transfer/Grant to IP	628,658	
		Contract service	52,060	
		IP-Indirect Support Cost	2,538	
		Grants Out	49,300	
Training Component	**0**			
Equipment and Premises component	**0**		**1,343**	
		Supplies, Commodity, Materials	1,224	
		Equipment, Vehicles and Furniture	119	
Miscellaneous (incl M&E)	**104,000**		**3,020**	**0.03**
launch and dissemination	54,000	Operating and other Direct Costs	3,020	
Mid-term and final evaluation	50,000			
Sub Total	2,112,882		1,488,868	0.70
PSC costs			**124,407**	
Japan PSC	210,860	13% PSC (Japan)	119,060	
Norway PSC	9,556	8% PSC (Norway)	5,347	
Other Programme support costs			**16,964**	

Component/sub-component/output *All figures as USD*	Estimated cost at design	Budget lines	Actual Cost/ expenditure	Expenditure ratio (actual/planned)
		8% PSC (SIDA)	16,964	
Sub Total PSC	220,416	Sub Total PSC	141,371	0.64
Total	**2,333,297**		**1,630,239**	**0.70**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

531.2 Secretariat Support to the Global Partnership on Waste Management

230. The total planned budget for project 531.2 was USD 5,496,041. The secured funding was USD 2,759,998 and the actual expenditure was USD 1,110,925. Total expenditure represents 20.2% of the planned budget and 40,3% of secured funding. The below table presents the project funding sources for project 531.2:

Table 24: 531.2 Project Funding Sources

Funding source *All figures as USD*	Planned funding	% of planned funding	Actual Secured funding	% of secured funding
Cash				
Funds from the Environment Fund				
Funds from the Regular Budget				
Extra-budgetary funding (listed per donor):				
Government of Japan	3,209,742	58.40%	1,611,212	58.38%
Government of Japan Mercury	1,200,000	21.83%	1,050,000	38.04%
Unsecured XB funding:	836.299	15.22%		
SIDA (Sweden)			80,180	2.91%
Sub-total: Cash contributions	*5,246,041*	*95,45%*	*2,741,392*	*99,33*
In-kind				
Environment Fund staff-post costs	250,000	4.55%	18,606	0.67%
Regular Budget staff-post costs				
Extra-budgetary funding for staff-posts (listed per donor)				
Sub-total: In-kind contributions	*250,000*	*4,55%*	*18,606*	*0,67%*
Total	**5,496,041**	**100%**	**2,759,998**	**100%**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer. Notes: Actual secured funding refers to the actual money received for project implementation (staff component and project activities).

231. The expenditure table for project 531.2 budget lines versus Umoja budget lines is as follows:

Table 25: 531.2 Expenditure table per ProDoc budget lines and Umoja budget lines

Component/sub-component/output *All figures as USD*	**Estimated cost at design**	**Actual Cost/ expenditure**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Project Personnel	2,897,653		840,947	0.29
Project personnel	2,216,744	Staff cost	591,017	0.27
Consultants	0		43,285	
Administrative support	546,480		28,230	0.05
Travel	134,429	Travel	178,415	1.33
Subcontracts	905,000		208,397	0.23
Subcontracts (MoUs/LoAs)	905,000	Transfer/Grant to IP	206,609	0.23
		Contractual Services	1,788	
Training Component	884,088		0	0.00
Meetings/conferences	884,088			0.00
Miscellaneous (incl M&E)	205,773		8,301	0.04
Reporting costs	105,773	Operating and other Direct Costs	8,301	.,04
Monitoring and Evaluation	100,000			
Sub Total	4,892,514		1,057,645	0.22
JC support costs (incl Mercury A and B)	369,262	13% PSC (Japan)	1,137	0.09
	69,026	13% PSC (GOJ Mercury)	46,204	
	69,026			
Programme support costs unsecured budget	96,211	8% PSC (SIDA)	5,939	0.06
Sub Total	603,525		53,280	0.09
Total	**5,496,041**		**1,110,925**	**0.20**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

232. The expenditure table per output for project 531.2 is provided below. The outputs used reflect those defined in the original ProDoc and are as follows:

- Output 1: Generated knowledge to inform international cooperation on waste management in developing countries;
- Output 2: Secretariat services and guidance provided to the GPWM to increase international coordination in supporting waste management in developing countries;
- Output 3: Pilot solutions for emerging and complex waste streams for potential inclusion in the GPWM approach.

Table 26: 531.2 Expenditure table per ProDoc outputs

Actual expenditure **Budget lines**	**Output 1**	**Output 2**	**Output 3**	**Total**
Travel	30,523	0	147,892	178,415
Consultant	43,285	0	-	43,285
Contractual Services	433	0	1,355	1,788
Transfer/Grant to IP	-	0	206,609	206,609
Operating and other Direct Costs	-	0	8,301	8,301
Staff cost	43,347	0	575,900	619,247
Total	117,588	0	940,056	1,057,645
PSC	5,939	0	47,341	53,280
Grand Total actual expenditure	**123,527**	**0**	**987,397**	**1,110,925**
Estimation at design	**766,413**	**1,321,929**	**3,407,699**	**5,496,041**
Expenditure ratio (actual/planned	**0.16**	**0.00**	**0.29**	**0.20**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

534.1 Delivering integrated waste solutions at the national and local level

233. The total estimated budget for project 534.1 was USD 10,189,439. The secured funding was USD 8,967,475 and the actual expenditure was USD 7,721,588. The total expenditure represented 75.8% of the planned budget, and 93,7% of the secured funding.

234. All M&E expenses for all three projects were allocated to project 534.1. Not all M&E costs have been charged to 534.1 yet, as not all payments for the TE have been made. This means that the final expenditure of project 534.1 will be higher (currently estimated at USD 34,400 according to information received from the Fund Management Officer). The below table presents the funding sources (planned versus secured funding) for project 534.1:

Table 27: 534.1 Project Funding Sources

Funding source ***All figures as USD***	**Planned funding**	**% of planned funding**	**Actual Secured funding**	**% of secured funding**
Cash				
Funds from the Environment Fund	1,000,000	9.81%		0.00%
Funds from the Regular Budget				
Extra-budgetary funding (listed per donor):				
Government of Japan	3,604,517	35.38%	3,010,713	36.53%
Donor B: CCAC	432,000	4.24%		
Donor C: Nigeria 1	226,000	2.22%		
Donor D: Nigeria 2	226,000	2.22%		

Funding source ***All figures as USD***	**Planned funding**	**% of planned funding**	**Actual Secured funding**	**% of secured funding**
Unsecured XB funding:	4,450.922	43.68%		
Donor E: Japan (For IGES CCET)			3,833,000	46.51%
Donor F: Sweden			401,209	4.87%
Donor G: Japan (For Lebanon Project)			25,000	0.30%
Donor H: Norway			100,000	1.21%
Donor I: IKI			517,676	6.28%
Donor J: Netherlands			110,375	1.34%
Sub-total: Cash contributions	*9,939,439*	*97.55%*	*7,997,973*	*97.04%*
In-kind				
Environment Fund staff-post costs	250,000	2.45%	243,833	2.96%
Regular Budget staff-post costs				
Extra-budgetary funding for staff-posts (listed per donor)				
Sub-total: In-kind contributions	*250,000*	*2.45%*	*243,833*	*2.96%*
Total	**10,189,439**	**100%**	**8,241,806**	**100%**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer. Notes: Actual secured funding refers to the actual money received for project implementation (staff component and project activities).

235. The expenditure table for project 534.1 budget lines versus Umoja budget lines is as follows:

Table 28: 534.1 Expenditure table per ProDoc budget lines and Umoja budget lines

Component/sub-component/output ***All figures as USD***	**Estimated cost at design**	**Budget lines**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Project Personnel	2,186,168		1,703,777	0.78
Project personnel	909,688	Staff cost	1,137,841	
Consultants	220,000	Other Personnel	244.713	
Administrative support	546,480			
Travel	510,000	Travel	321,223	0.63
Subcontracts	4,880,718		5,218,461	1.07
Subcontracts (MoUs/LoAs)	4,880,718	Transfer/Grant to IP	5,163,057	
		Contract service	43,607	
		IP-Indirect Support Cost	2,793	
		Grants Out	9,004	
Training Component	2,248,874			0.00
Meetings/conferences	2,248,874			
Miscellaneous (incl M&E)	375,000		65,458	0.17

Component/sub-component/output ***All figures as USD***	**Estimated cost at design**	**Budget lines**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Reporting	100,000	Operating and other Direct Costs	62,304	
Monitoring & Evaluation	275,000	Supplies, Commodity, Materials	2,031	
		Equipment, Vehicles and Furniture	1,123	
Sub Total	9,690,760		6,987,696	0.72
Japan and Nigeria PSC	466,679	13% PSC (Japan)	645,236	
CCAC PSC	32,000	8% PSC (Norway)	13,708	
		8% PSC (SIDA)	28,834	
		13% PSC (IKI)	33,822	
		13% PSC (Netherland)	12,293	
Sub Total	498,679	Sub Total	733,893	1.47
Total	**10,189,439**		**7,721,588**	**0.76**

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

236. The expenditure table per output for project 534.1 is presented below. The ProDoc outputs were as follows:

- Output 1: Support the collection of state-of-the-art waste hierarchy approach knowledge, fill knowledge gaps on 3R and made knowledge products available for developing countries;
- Output 2: Support project countries to strengthen capacities for 3R/ waste hierarchy approach;
- Output 3: Promote the Replication and scaling up the waste hierarchy approach in developing countries supported by regional/sub-regional bodies and partnerships.

Table 29: 534.1 Expenditure table per ProDoc outputs

Actual expenditure **Budget lines**	**Output 1**	**Output 2**	**Output 3**	**Total**
Travel	90,746	209,240	21,236	321,223
Other Personnel	62,273	182,813		245,086
Contract Service	29,197	12,928	1,402	43,526
Supplies, Commodity, Materials		2,031		2,031
Transfer/Grant to IP	599,000	4,419,249	144,808	5,163,057
IP-Indirect Support Cost		2,793		2,793
Operating and other Direst Costs	1,718	39,556	21,030	62,304
Equipment, Vehicles and Furniture		1,123		1,123
Grants Out	7,042	1,962		9,004

Actual expenditure **Budget lines**	**Output 1**	**Output 2**	**Output 3**	**Total**
Staff cost	154,064	947,421	36,355	1,137,841
PSC costs	100,397	602,329	21,630	724,356
M&E	3,082	3,082	3,082	9,245
Grand Total actual expenditure	1,047,519	6,424,527	249,543	7,721,588
Estimation at design	3,722,176	4,606,176	1,861,088	10,189,440
Expenditure ratio (actual/planned)	0.28	1.39	0.13	0.76

Source: Operational Completion Reports, and Excel files shared between the evaluation team and the Fund Management Officer.

Rating for Completeness of Financial Information: Moderately Unsatisfactory

Communication Between Finance and Project Management Staff

237. The Fund Management Officer (FMO) and the Financial Assistant at IETC cooperated almost on a daily basis and were in regular contact with project managers. Project managers informed the FMO when new funding needed to be included or allocated to the projects. The FMO provided monthly allotment reports to project managers. It is, however, unclear to what extent project managers and the FMO discussed the unspent funds and possibilities to raise projects' expenditure or re-allocate funds to fund other activities.

238. The contact points for the evaluation, the FMO and the Financial Assistant, were responsive to the evaluation team and mostly tried to answer questions promptly. The final expenditure and funding overviews were prepared during the evaluation, although all projects were finalised already in late 2018 or early 2019. The Operational Completion Reports were only finalised after the evaluation team had a Skype call with UNEP IETC in May 2020.

Rating for Communication Between Finance and Project Management Staff: Satisfactory

239. The analysis of this section is based on a set of criteria presented in the table below. The table was completed based on all three projects together, and not separately. If there is any difference between projects this is clearly indicated under comments.

Table 30: Rating of financial management components (for all three projects)

Financial management components:	**Rating**	**Evidence/ Comments**
1. Adherence to UNEP's policies and procedures:	**S**	
Any evidence that indicates shortcomings in the project's adherence to UNEP or donor policies, procedures or rules	No	The projects were managed fully in line with UNEP's regulations and using the UNEP Umoja system.
2. Completeness of project financial information:	**MS**	

Financial management components:		**Rating**	**Evidence/ Comments**
Provision of key documents to the evaluator (based on the responses to A-H below)			
A.	Co-financing and Project Cost's tables at design (by budget lines)	Yes	Summary and full budgets were provided in all three ProDocs.
B.	Revisions to the budget	Yes	All three projects had several budget revisions. Project 531.1 and 531.2 each had 3 project revisions, and project 534.1 had 8 budget revisions. The budget revisions reflected new funding that came in. The revisions did not reflect the budget changes related to e.g. not setting up the GPWM Secretariat.
C.	All relevant project legal agreements (e.g. Small-scale Funding Agreement, PCA, ICA)	Yes	All relevant project agreements were provided. It was sometimes difficult to find the applicable project documents as also many legal agreements that were not related to any of the three projects were provided.
D.	Proof of fund transfers	No	IETC did not provide proof of funds to the evaluation team in a timely manner. Based on exchanges with project partners, it was clear that the partners received the funds to implement the activities according to contract.
E.	Proof of co-financing (cash and in-kind)	No	Any proof of co-financing was not provided as UNEP IETC is not obliged to keep records of co-financing.
F.	A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level)	Partially	Summary reports were included in the Operational Completion Reports and brief overviews of final expenditures were provided. It was difficult to establish an expenditure ratio, as the Umoja system has different budget lines than the budgets in the original project documents. For all projects, overviews per Umoja budget lines were provided, and for project 531.2 and 534.1 overviews per output (as per original ProDoc budget) were also supplied. The Umoja system could not provide expenditure on a detailed level, which made it difficult to assess how resources were used and if budget was spent effectively.
G.	Copies of any completed audits and management responses *(where applicable)*	N/A	N/A No project audits needed to be prepared. UNEP has annual audits.
H.	Any other financial information that was required for this project	No	The information from UMOJA was fully provided to the evaluation team. Full

Financial management components:	Rating	Evidence/ Comments
(list):		information and clear explanations related to unspent funds were not provided. Exact information on reallocation of funds was initially not provided but became available later during the evaluation report review phase.
3. Communication between finance and project management staff	**S**	
Project Manager and/or Task Manager's level of awareness of the project's financial status.	MU	No final expenditure and funding overviews were prepared before the start of the evaluation, although all projects were finalised already in late 2018 or early 2019. The Operational Completion Reports were only finalised after the evaluation team had a Skype call with UNEP IETC in May 2020.
Fund Management Officer's knowledge of project progress/status when disbursements are done.	S	The Fund Management Officer was well aware of the three projects and was in contact with IETC on a regular basis.
Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.	S	The Fund Management Officer and the Financial Assistant at IETC cooperate on an almost daily basis and were in good contact with the project managers.
Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports.	S	As mentioned, communication and cooperation between financial staff and project managers seem to have been well organized.
Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the evaluation process	S	The contact points for the evaluation, the Fund Management Officer and the Financial management Assistant, were responsive to the evaluation team and mostly tried to answer questions promptly. The Operational Completion Reports were only finalized during project implementation, even though the last of the three projects ended in March 2019.
Overall rating	**MS**	

Rating for Financial Management: Satisfactory

F. Efficiency

Finding 18: IETC's partnerships with UNEP Regional Offices and organizations such as AIT, CEDARE, CSIR, GEC, GRID-A, IGES, ISWA, Zoï Environment Network, and relevant universities and institutes in the regions were conducive for project implementation and the conduct of most activities in a timely manner.

Finding 19: Projects made good use of existing partnerships; some of the project partners were involved in more than one project and could therefore use their knowledge gained in one project for the benefit of other project(s). This is also considered to be a cost-effective approach that supported the achievement of project targets.

Finding 20: The production of the Outlooks faced delays due to the reported lengthy review processes and difficulties collecting reliable data. The review process included feedback loops, which in some cases could have been clarified at project commencement. Nonetheless, these delays did not lead to any project extension.

240. The three projects were closely interlinked and operated co-dependently from each other. However, they were developed separately, thus having transaction costs that could have been reduced (e.g. in terms of project design, approval process and actual implementation costs). This was recognized by IETC, and the new ongoing project 521.1 took a more programmatic approach, merging key activities from all projects into one.

241. There were no project extensions, and the projects were executed within the planned project duration. There were, however, delays in the implementation of several activities, and in some cases, these were transferred to follow-up project 521.1, including the development of final versions of some waste management strategies (such as Myanmar, Nepal and Jamaica) as well the continuation of the development of two Regional Waste Management Outlooks.

242. The projects made use of existing partnerships and other initiatives in a cost-effective manner. An example of this is the partnership with ISWA; ISWA was involved in all three projects and the efficiency in all projects increased as the projects could make use of ISWA's networks, also using its workshops and meetings to promote and distribute the products prepared within the three projects. Similarly, the projects benefitted from the active cooperation with other organizations such as AIT, the Asia Foundation, CEDARE, GEC, GRID-Arendal, IGES, Zoï Environment Network, and also the UNEP ROs, utilizing their structures, networks and infrastructure.

243. **Project 531.1:** The secured budget was sufficient to carry out planned activities and no major issues were reported to the evaluation. However, some of the stakeholders pointed out that the GWMO and the RWMOs would have benefitted from further communication activities and awareness-raising related to the Outlooks. Launching events were organised for the Outlooks; due to COVID-19, the West Asia Outlook was launched online. According to the ProDocs, the UNEP ROs were to carry out communication on the Outlooks, which was confirmed by the ROs. At the same time, it was also mentioned that this did not include any specific additional communication activities; it included workshops or conferences where participants received copies of the Outlooks, and distribution of soft copies online. According to some stakeholders, communication activities for the Outlooks should have been allocated a separate budget and the communication strategy implemented in a coordinated way.

244. There were some delays during the development of the Outlooks. The reasons for this varied, and included difficulties in finding data of good quality, and long periods to issue the contracts of authors (this may have been due to the change of system to

Umoja at UNEP). Another reason for delay that respondents mentioned was the long and tedious review process, whereby changes were requested only at the review stage, which should have been decided and mentioned much earlier. Some of the stakeholders indicated that the changes requested after the reviews took much longer than initially planned, thus reducing the competitiveness of their emoluments.

245. The delays did not affect the production of the Outlooks nor their quality. The Outlooks were completed within the project duration and were appreciated by all interviewed stakeholders. However, the opportunity costs of such delays cannot be completely ignored, for example, the time and energy spent in carrying out additional research in those cases where data was not readily available, time spent in waiting for the contract to be issued, and not taking up other assignments at the same time due to commitment to the Outlook.

246. Some synergies were reported to the evaluation. For example, some stakeholders mentioned that the GWMO and/or RWMOs served as reference documents during the preparation of the waste management strategies. Moreover, some of the authors and other stakeholders worked on more than one of the three projects, thus using knowledge acquired in one project activity for the preparation of the other(s). Some authors were also involved in the development of waste management strategies and/or in the development of the university curricula. Beyond the synergies and complementarities between the evaluated IETC projects, no synergies were found with other UNEP interventions.

247. The Secretariat within **project 531.2** was not established. IETC considered that the formal Secretariat would have no added value and that IETC and project partners, most specifically ISWA, were already fulfilling the tasks that were planned to be done by the Secretariat. The project partners during implementation of all three projects provided services to countries and stakeholders that were needed and requested, and also prepared many knowledge products that have supported stakeholders to improve their waste management. It was suggested that not establishing the formal Secretariat function was in fact a cost-effective measure, as setting up and maintaining an official formal Secretariat would require more budget. The expenditure of project 531.2 was much lower than the planned and also the secured budget. The total expenditure was only 20,2% of the planned budget. It should be noted that there were no expenditures for Output 2, which correlates fully to maintaining the GPWM Secretariat (see also chapter V – Evaluation Findings, section E - Financial Management).

248. **Project 534.1:** Some delays were reported in the preparation of the waste management strategies in some countries, due to changes in government or priorities of the government. Nevertheless, despite the delays, the strategies were prepared, or were continued within project 521.1. Synergies in the development of the curricula and strategies were also reported to the evaluation. For example, the university curriculum for the Asian region was prepared first, and then served as a basis for the curricula in the African and LAC regions, which were adapted according to the regional needs. Some of the project partners worked on more than one project, thus making use of knowledge and information gained in one project or activity for the benefit of other activities. For example, besides the institutions such as AIT,

individual contributors to the Outlooks were also engaged in activities related to the waste management strategies, such as reviewing and/or editing.

Rating for Efficiency: Satisfactory

G. Monitoring and Reporting

Finding 21: The ProDocs contained brief M&E plans that were partially implemented. Indicators were not always formulated adequately to track progress towards outcomes.

Finding 22: Mid-term reviews were planned in the ProDocs of all three projects but were not conducted. It is unclear why the reviews did not take place.

Finding 23: Project monitoring, reporting and information management were weak. Limited quantitative and qualitative information was provided in the system and reports, and there was no systematic way to measure results.

Monitoring Design and Budgeting

249. All three ProDocs contained very brief Monitoring and Evaluation (M&E) Plans and for all projects adequate budget was allocated for M&E.

250. The M&E Plans of **project 531.2 and 534.1** also included tables with information on indicators, targets, data sources, data collection methods, budget for M&E per outcomes and outputs, and responsible staff per outcome and output level. The M&E Plan of project 531.1 did not have such a table. The indicators in the tables at outcome level were often formulated as indicators at output or even activity level (e.g. number of reports from national and city governments).

251. All M&E Plans included mid-term and terminal evaluations. However, these mid-term reviews were not conducted. The M&E plans were not disaggregated by stakeholder groups including gender and minority groups.

252. The ProDocs contain inconsistencies in outputs, outcomes and milestones, and sometimes these were not very clearly formulated. As mentioned under B - Quality of Project Design, the log frames of project 531.2 and 534.1 were not consistent with the narrative text in the ProDoc. It was therefore sometimes difficult to understand what these projects aimed to achieve.

253. The ProDoc of **project 531.1** does not have a table in its M&E plan, however, the plan does very concisely specify collection methods, budget and responsible persons. According to the M&E plan, the Steering Committee would provide guidance and ensure quality of the WMOs, conduct an initial meeting to agree on the structure of the reports, have two review meetings during the preparation of the Outlooks, and review the draft at the end.

254. The M&E plan of **project 531.2** was to be carried out by the IETC project manager who would check the number of reports, meetings, lead donors and participating countries and include this information in PIMS. No specific surveys or assessments were planned to be conducted.

255. The M&E plan of **project 534.1** mentions that a review of the academic curriculum, manuals on policy framework and economics of waste would be carried out by an Expert group. It also mentions that a survey would be conducted on the national and city waste management strategies. However, this survey was not prepared, and the Expert group was not set up. It is unclear why these activities were not implemented.

Rating for Monitoring Design and Budget: Moderately Unsatisfactory

Monitoring of Project Implementation

256. It was planned that all projects would be evaluated mid-term; the mid-term review would provide recommendations to improve project implementation where necessary during the remaining period of the projects. However, no mid-term reviews were organized. No clear reasons on why the mid-term reviews did not take place were provided to the evaluation team[16].

257. Monitoring and reporting were not fully carried out as anticipated in the ProDoc and the M&E plans were not fully implemented. While monitoring was done according to the plans, these were concise and had little detail, and therefore did not facilitate the timely tracking of results and progress towards outcomes. Moreover, some activities included in the plans were not carried out, such as the survey on the waste management strategies and the expert review of the curricula and manuals.

258. Although funds were allocated for M&E for each project, all M&E costs were charged to project 534.1. These expenses were mostly related to the TE and therefore much less budget was spent on monitoring and reporting than originally planned (see also section E - Financial Management).

259. Coordination and monitoring of activities were carried out mainly by IETC, supported by UNEP ROs, AIT, GEC, IGES, ISWA, and other partner organizations, depending on the project. The main responsibility of daily tasks was assigned to a project manager at IETC. Depending on the activity, the project manager coordinated with ISWA and/or other partner organizations. Partner organizations coordinated with experts, as well as representatives from the governments and/or other institutions.

Rating for Monitoring of Project Implementation: Moderately Unsatisfactory

Project Reporting

260. Project reporting for all three projects was done via the UNEP PIMS system by the project managers on a half-yearly basis. The evaluation team received the cumulative PIMS report for each project. Additionally, for all three projects an Operational Completion Report was provided; these reports were finalised only during the evaluation between May and August 2020. The reports contained information on

[16] According to UNEP's current policies, only projects of four or more years' duration (i.e. only project 534.1) require a mid-point performance assessment.

achievement of indicators, overall project results, lessons learned, recommendations and a summary of project costs and finances. The data as provided in the PIMS and Operational Completion Reports was sometimes incomplete and inaccurate, presenting mostly numbers and little details on what had been achieved, and on how results were measured and achieved. Moreover, some of the reported information in these documents was contradictory with the information received by the evaluation team received via questionnaires, interviews, and emails.

261. At the start of the evaluation, the evaluation team received many files with project documents, including a list of stakeholders, output reports, as well as minutes from some meetings. During the evaluation process, the evaluation team undertook substantive efforts to complete the list of stakeholders (e.g. by collecting contact data of the GWMO and RWMOs contributors, which was initially not provided), and also tried to get a better overview of the project documentation available and produced since not all materials were provided to the evaluation team.

262. It is normal that not all information is complete at the start of an evaluation. However, the evaluation team noted that information management at IETC had been weak: it did not provide any in-depth analysis and relied too heavily on individuals such as previous project managers (most of whom had left IETC before the evaluation). There is no evidence that weak information management has influenced project results, however, in some cases the evaluation team had difficulties or was not able to gather enough information on certain activities and outputs. Weak information and knowledge management could, in the long run, negatively influence project results and institutional memory if project information is not well documented, not shared or lost. It should be noted that IETC informed the evaluation team that PIMS reporting has improved for project 521.1 and now more in-depth information is provided on what and why certain activities are implemented.

Rating for Project Reporting: Moderately Unsatisfactory

Rating for Monitoring and Reporting: Moderately Unsatisfactory

H. Sustainability

Socio-political Sustainability

<u>Finding 24</u>: Approval of waste management strategies was sometimes delayed or has not taken place due to (political) factors, including governments focusing on other priorities and changes in governments. Delays in approval generally also meant that the strategies, or a part of the strategies, could not yet be implemented.

263. Social and political factors influenced project 534.1, as well as project 531.1 to some degree. Social and political factors had no impact on project 531.2.

264. In the ProDoc of **project 534.1**, risks related to political factors were defined. The risk assessment mentions three factors; change in government, lack of commitment of

governments, as well as the risk of community groups not working in a cordial manner with the government.

265. Within project 534.1 political factors (mainly the two first risks from the ProDoc mentioned above) did influence the sustainability of project results, specifically regarding the development of national and city level waste management strategies. Interviewees and respondents to questionnaires mentioned that due to political factors strategies have not yet been officially approved or the implementation of strategies has not yet taken place due to the governments having other priorities. In some cases, only adoption of strategies can release government funding for implementation. This means that these factors can have a high influence on sustainability of project outcomes.

266. The evaluation team also received responses from stakeholders which illustrated that people on a local level who were directly involved in the development of the strategy, both from government as well as from other stakeholders, generally showed a high interest in the process to develop waste management strategies. However, on a higher level, governments do not always prioritise waste management, possibly because of other priorities and/or financial reasons.

267. Within **project 531.1** socio-political factors did not highly influence sustainability of the project, but it may have had some impact on the quality of RWMOs. It was mentioned for one RWMO, that it was a difficult process to receive data necessary for inclusion into the Outlook because of political reasons in some countries (in general gathering data was regularly mentioned as a challenge, but mostly because data were not available or not comparable to data of other countries).

268. The ProDoc of **project 531.2** mentions the risk of change in priorities of donors and lead partners. However, the evaluation team has not established that this factor or any other socio-political factors affected the sustainability of this project. As was discussed previously, the formal GPWM Secretariat was not established. This was not due to socio-political, financial, or institutional factors, but an internal IETC decision. IETC, ISWA and other project partners provided the services and knowledge products that were planned to be provided by the GPWM Secretariat. It should be noted that it is however unclear what would have happened if the Secretariat had been established. According to IETC, the GPWM is still existing but does not execute any work as a partnership. Possibly, a formalised and active Secretariat might have contributed to a more active partnership and more members to join the partnership.

Rating for Socio-Political Sustainability: Moderately Likely

Financial Sustainability

<u>Finding 25:</u> For most waste management strategies that were developed, there are (as yet) no adequate financing schemes that would ensure full implementation of the strategies. Financial sustainability is therefore limited and is dependent on government's commitment.

<u>Finding 26:</u> Lack of funding has affected the further development of the university consortia in the Asia Pacific and African region, which means there has been no increase in other universities teaching the curricula (or modules of the curricula).

269. Regarding **project 531.1**, it can be said that finances did not influence the sustainability of the project outcomes. All the RWMOs and GWMO were prepared, and within project 521.1. GWMO II is being prepared. This project also explores updates or preparation of new RWMOs if countries would request this (during discussions with IETC it became clear that currently no updates or new RWMOs are foreseen).

270. Factors related to financial sustainability did not affect **project 531.2**. Even though the Secretariat itself was not set up, IETC in cooperation with mainly ISWA, but also other project partners, continue to deliver services and knowledge products, and in turn this has led to increased stakeholder cooperation. It has been suggested that not setting up of the Secretariat has been cost-effective; there were no high costs for maintaining a Secretariat, while at the same time IETC and partners have been able to continue cooperation with stakeholders, as well as prepare knowledge products that have been actively used by countries and other beneficiaries.

271. Financial factors do play a strong role within **project 534.1**. The questionnaires and interviews showed that when waste management strategies were prepared, there is often not enough funding to (fully) implement them. In many cases no adequate financing schemes are available to the countries or cities to carry out the strategy.

272. Even though there is follow-up to project 534.1 and to the development of national and city waste management strategies, there is in most cases no clear exit or follow-up strategy for the individual waste management strategies. This means there is no clear financial path that may lead to the full implementation of the strategies that were developed.

273. Funding is also affecting the sustainability of the development of university curricula, especially for the Asia Pacific and Africa. The respondents and interviewees considered that the development of the curricula on holistic management was overall successful. Even though it is a longer process to have the curricula internalized within the universities, parts of the curricula are taught and the respondents to the questionnaires agreed that the curriculum was of added value, as it approached waste management in a different way than previously. However, lack of funding also meant that the consortia are not very active anymore, except for the LAC consortium, and that the original idea of having the curricula internalized in all universities or taught at other universities has not yet taken place.

274. As financial sustainability affects project 534.1 very differently than project 531.1 and project 531.2, the evaluation team is unable to provide one general rating for all three projects. This sub-criterion is therefore not rated as a whole. For project 534,1 financial sustainability is **Moderately Unlikely** (mainly due to a lack of adequate financing schemes to implement the waste management strategies), whereas for the other two project financial sustainability can be rated as **Moderately Likely**.

Rating for Financial Sustainability: Not rated

Institutional Sustainability

Finding 27: In many countries and cities where waste management strategies have been developed as part of project 534.1, there is limited institutional and financial sustainability. The governments involved do not always have the capacity and resources needed to implement the strategies. No follow-up strategies were prepared to ensure actual implementation of the waste management strategies by participating governments after project completion.

Finding 28: No major issues regarding institutional sustainability were identified for projects 531.1 and 531.2. The Secretariat function from project 531.2 is being informally continued and coordinated by IETC and ISWA, making use of existing networks and structures. The Outlooks and other guidelines are available on several websites and GWMO II is currently being prepared under the supervision of IETC.

275. The sustainability of project outcomes depends on the national and local governments that developed waste management strategies within **project 534.1**. In many cases the strategies were developed but not yet implemented. This means that the local and national governments will need to implement the strategies before it can be said that countries truly apply the waste hierarchy approach and before countries can be said to have a sound waste management system in place. Although many governments showed active participation in the development of the strategies, and their knowledge on waste issues has increased, many national/local institutions and governments lack institutional sustainability (for example regular changes and staff turnover, different priorities, and limited budget allocated to implement strategies). Many respondents to questionnaires remarked that countries need further support, and more capacity needs to be built before they can implement the strategies and take full ownership of waste management.

276. During the project, no clear exit or follow-up plans were developed to ensure that the waste management strategies are implemented after the project. These plans could have addressed some of the sustainability issues mentioned in this chapter. More follow-up with national and local governments is needed to ensure better sustainability of project results, possibly through project 521.1.

277. There are no issues regarding institutional sustainability within **project 531.1** and **project 531.2**. Both projects delivered the reports and services that were planned to be delivered. IETC and its project partners continue to develop waste guidelines and provide services to countries. The Secretariat function within the framework of project 531.2 has not been set up at the IETC; nevertheless, this function has been informally taken over by IETC and ISWA, which already has a large number of organizations and stakeholders from different countries in its existing network. Therefore, institutional sustainability of the Secretariat function was not at risk.

278. IETC indicated to the evaluation team that there had been a decrease in staff during the implementation of the three projects, as well as within the ongoing project 521.1. In the long run, this decrease in staff capacity may affect the institutional sustainability of project results (see also below, under I – Factors Affecting Performance and Cross-Cutting Issues, Quality of project management and supervision).

279. Based on the assessment above, the evaluation team considers that institutional sustainability for project 531.1 and 531.2 is **Moderately Likely**. However, institutional sustainability for project 534.1 is **Moderately Unlikely**, as in many countries, there is limited institutional sustainability within participating governments. Given the difference in rating between the three projects, the evaluation team decided not to provide an overall rating for institutional sustainability.

Rating for Institutional Sustainability: Not rated

Rating for Sustainability: Moderately Likely

I. Factors Affecting Performance and Cross-Cutting Issues

280. The evaluation looks at seven factors that may affect project performance, as follows:

Preparation and readiness

Finding 29: Project teams were well prepared and ready to carry out the activities under each project. All relevant partners were identified and involved early at project inception.

281. Overall, the preparation and readiness of IETC and project partners was adequate. Despite the project teams being well organized, there were some delays in starting project activities, one of the reasons being long contracting processes. There are, however, no indications that any critical issues arose at the start of any of the three projects.

282. As mentioned in Operational Completion Report of project 534.1, IETC already started working on activities while waiting for the official approval of the Programme Cooperation Agreement.

283. IETC identified and involved relevant project partners for all three projects, that were expected to contribute with their expertise on waste management issues and/or the region where activities were to be implemented. The ProDocs all contain an analysis of the main implementation partners and other stakeholders, as well as their capacities. Implementation arrangements were made at the start of each project.

Rating for Preparation and Readiness: Satisfactory

Quality of project management and supervision

Finding 30: Changes in staff at IETC and limited human resources negatively impacted project management, mainly with respect to comprehensive monitoring and reporting and institutional memory at IETC.

284. Interview and respondents highly valued the inputs and support from IETC and project partners. The evaluation team considers that this certainly had a positive impact on the projects' performance.

285. Overall, the working relationship between IETC and the main implementing project partners (UNEP Regional Offices, organizations such as AIT, the Asia Foundation, CSIR, GEC, GRID-Arendal, IGES, ISWA and the Zoï Network) was constructive and contributed to realizing the expected outputs.

286. Steering Committees were established for project 531.1 and 531.2. However, there was no Project Steering Committee for project 534.1. Activities with project implementation partner IGES were overseen by a separate steering committee comprised of, amongst others, IETC, the UNEP Economy Division and IGES staff. However, the IGES activities covered only part of the work executed within project 534.1.

287. IETC remarked that over the last years the number of fixed term staff has decreased and that limited human resources at times influenced the management of projects, mainly when it came to comprehensive monitoring and reporting. During the implementation of the three projects, the total number of staff was reduced by 2 (one P5 and G4 level). The decrease in staff may have affected the quality of the information and knowledge management; monitoring reports provided mostly quantitative information and limited qualitative data, the data was not always accurate or complete, project completion reports were not finalized at the end of projects, and it was unclear how certain results were achieved as these were not always measured. Considering the rotation of staff and the weaknesses in project reporting and monitoring, the evaluation team considers IETC's institutional memory as limited.

Rating for Quality of Project Management and Supervision: Moderately Satisfactory

Stakeholder participation and cooperation

<u>Finding 31</u>: Active and broad cooperation of all involved stakeholders resulted in the efficient and timely delivery of activities. The role of the UNEP Regional Offices in project implementation at regional level was critical for the achievement of results.

<u>Finding 32</u>: Activities were carried out in cooperation with the regional organizations in Asia and Latin America. A systematic strategic approach to partnerships at regional level would have supported the consolidation of project results, and especially for project 534.1, the implementation of the waste management strategies after project completion.

<u>Finding 33</u>: Development banks were not involved in the projects as originally envisaged at project design. Partnerships with development banks that work in waste management are important to facilitate financing mechanisms for the implementation of the waste management strategies after project completion.

288. Active and broad cooperation resulted in the outputs being delivered; IETC's strategy to partner with UNEP Regional Offices and relevant universities and institutes in the regions for project implementation was strategic and conducive to achieve the expected outputs. The UNEP ROs played a crucial role in coordinating and accomplishing activities in the regions. For instance, the UNEP ROs had overall responsibility for some of the RWMOs, for example, the UNEP RO LAC for the LAC

WMO. Further, IETC cooperated with ASEAN in a non-formalised way to prepare reports and studies on waste management and mercury in the ASEAN countries.

289. All the ProDocs contained a stakeholder analysis. IETC consulted regularly with project partners and stakeholder groups during implementation of activities. For some activities, such as the development of waste management strategies and university curricula, the project partners consulted regularly with stakeholders at national and local level, and with universities on a day-to-day basis. The support provided by project partners was rated as valuable by interviewed stakeholders. Partners such as the UNEP Regional Offices, AIT, IGES, ISWA and the Zoï Environment Network supported data collection and the drafting and review of the Outlooks and university curricula. They also provided feedback and advice, as well as coordination support for all three projects.

290. Consulted stakeholders were satisfied with the teamwork amongst the several authors/contributors, and also with the support provided by IETC. There was regular exchange of experience between project stakeholders, although some respondents to the questionnaires on waste management and university curricula remarked that more exchange between countries or the three university consortia would have been appreciated.

291. Several interviewees and respondents to the questionnaires suggested that it would be good for IETC to partner with regional development banks and other regional organizations, as these banks could support the establishment of financing mechanisms. Such mechanisms would facilitate implementation of e.g. the waste management strategies. In the ProDocs, it was planned that development banks would be involved in the projects. However, the evaluation team did not find evidence of any structured cooperation with regional development banks.

292. Interviewees reported cooperation with other UNEP Divisions. There was also cooperation with the GEF Chemicals and Waste Unit, however not within the framework of the projects under evaluation. Based on several interviews held, the evaluation team considers that more structural cooperation with the GEF Chemicals and Waste Unit (on e.g. hazardous waste such as mercury waste) and also with the Special Programme for Chemicals and Waste, would provide good opportunities for IETC to enhance its work on waste management.

Rating for Stakeholders' Participation and Cooperation: Satisfactory

Responsiveness to human rights and gender equity

<u>Finding 34</u>: Gender and human rights aspects were considered in all the projects to some extent, but not comprehensively, even though it is clear that gender and vulnerable groups play an important role in waste management (e.g. as waste pickers or as main waste collectors in households). The projects produced one elaborate report on gender with examples from Bhutan, Nepal and Mongolia.

293. All three ProDocs refer to gender and vulnerable groups, but do not specify human rights concerns. The ProDocs did not clarify how these groups were planned to be involved in the three projects. The Operational Completion Reports also briefly

address minority and gender aspects, and how these aspects were considered during implementation of the projects.

294. Within **project 531.1**, gender and/or vulnerable groups have been taken into consideration in all the WMOs in different ways. No separate chapter on gender and/or vulnerable groups was included in the WMOs; nevertheless, these aspects are covered throughout the WMOs in different sections, including the case studies. The Africa WMO, for example, includes a sub-chapter on gender (p.95), i.e. Waste and Gender, although it contains general information from secondary research, as women participate in waste collection and sorting in several African countries. The GWMO addresses gender in Topic Sheet 1 of its Chapter 4. The role of waste pickers and the informal sector in waste management has also been considered. Some respondents and interviewees highlighted the need to include more gender-related factsheets and case studies (around 15% of the respondents/interviewees) and the need for capacity building and empowerment (around 10% of the respondents/interviewees).

295. For **project 534.1**, ten respondents (59%) to the questionnaire on university curricula remarked that the issues of gender, vulnerable groups and human rights were considered. Specific examples gathered by the evaluation include the inclusion into the curricula of issues related to child labour, women working in e-waste, and persons working in the informal sector. Besides the inclusion in the university curriculum, respondents noted that gender and human rights aspects were also considered when teaching the curriculum, and highlighted the need to enhance the focus on these issues in the future. The full curriculum of the Asia Pacific consortium was available to the evaluation team. In this curriculum, gender aspects are considered and integrated into the fourth module (chapter 4.3. - Social Aspects of Waste Management).

296. In the case of the waste management strategies, from the 21 questionnaires received, 11 questionnaires (52%) reported the involvement of minority groups (i.e. indigenous people, women, youth) in the development of strategies. These 11 questionnaires covered 5 national strategies and 7 city strategies. Out of these groups, women were mentioned most often (7 times), followed by youth (6 times), persons working in the informal waste sector (4 times), and ethnic groups (2 times).

297. The report "Gender and Waste Nexus – Experiences from Bhutan, Mongolia and Nepal" was prepared by project partner GRID-Arendal. Several stakeholders mentioned and appreciated this report, some of whom also expressed the need for better addressing gender issues in other regions and countries as well.

298. Overall, the evaluation team found that IETC and project partners addressed gender and minority issues in the reports, strategies and studies that were prepared, although not in all reports and strategies. As interviewees and respondents to questionnaires pointed out, this could have been done in a more comprehensive and systematic manner, assessing gender and human rights aspects in the specific context of all participating countries.

Rating for Responsiveness to Human Rights and Gender Equity: Moderately Satisfactory

Environmental and Social Safeguards

<u>Finding 35</u>: Aspects related to environmental and social safeguards have been included in all ProDocs and were assessed in the final Operational Completion reports. All projects contributed to SDGs related to waste and environment and were in line with UNEP's Environmental, Social and Economic Sustainability Framework.

299. All three ProDocs include sub-chapters/sections on Socio-Economic Issues and Environmental Safeguards. The Operational Completion Reports that were prepared after the projects also very briefly assess social, environmental, and economic safeguards. No fundamental safeguarding issues were reported during project implementation. All projects contributed to SDGs related to waste and environment: 3.9, 5.5, 6.3, 8.4, 11.6, 12.4, 12.5, 14.11.

300. The Operational Completion Reports also contain concise Risk Management Logs, with brief descriptions on when and by whom these risks were monitored. The Log for project 531.2 mentions only who and when the risks were planned to be monitored (no information was provided if this was actually done).

301. The project team made efforts to keep UNEP's environmental footprint minimal. For example, electronic versions of the Outlooks are available for download from several websites, back-to-back meetings were organized in some cases to enable the relevant partners to participate in both meetings in one go, and several virtual meetings and discussions took place. However, it was also pointed out by some of the contributors to the Outlooks that one initial coordination meeting, where they were physically present, was not enough.

302. The ProDoc of **project 531.1** mentions that the project aims to "ensure effective waste management in a way that is economically, environmentally and socially more sustainable". The project has provided a lot of valuable information on waste management, via the GWMO, the RWMOs and other reports and studies. Further, the project has considered and included information on vulnerable groups in different aspects of waste management in the WMOs, for example the waste pickers and women.

303. In the chapter on Environmental and social safeguards in the Operational Completion Report, it is mentioned that the project identified waste management gaps and needs. The Outlooks also assessed the impacts of policies in poverty alleviation and gender issues. Additionally, according to the Operational Completion Report, the Outlooks highlighted "the disparity in resourcing (from national budgets and international development funding) allocated to waste management services despite the far-reaching sustainable development implications of inadequate waste management, and the costs of inaction borne in key sectors such as health, environment and water".

304. The ProDoc of **project 531.2** states that the project adheres to the UNEP environmental, social and economic sustainability (ESES) framework[17] and aims at

[17] The Environmental, Social and Economic Sustainability Framework was adopted by the UNEP on 31 December 2014, and sets their Standards to be considered in projects.

improving the ESES aspects of projects in waste management. The project provided knowledge and information about the contribution of sound waste management towards the achievement of Sustainable Development Goals 2030 (SDGs), via the different reports that were prepared, and via different fora.

305. The Operational Completion report also specifically mentions that the project looked at open dumping and open burning in low-income countries. It is often considered that open dumping and burning of waste have the cheapest operational costs and is the only practical option in low and low-middle income countries. However, it causes enormous damage related to environmental, social, and economic factors. It is stated in the report that "the project shared this fact [with project partners] so that stakeholders could change their mind and take proper action towards phasing out open dumping and burning of waste".

306. The overall objective of **project 534.1** was "to create enabling conditions including behavioural changes so that waste would be treated and disposed of in an environmentally sound way." The ProDoc mentions that the project is expected to contribute to environmental laws related to waste management, via the waste management strategies and action plans at both national and city levels. Thus, the project was expected to reduce adverse impacts on human health and environment and support countries to enhance their contribution towards a healthy and clean environment.

307. In the Operational Completion Report, it is clarified that by improving waste management policies on the local level, the project also supported countries in better meeting their international commitments in relation to their signing of the waste related MEAs.

308. The project contributed to several SDGs, including SDGs related to chemicals and waste, and environment: 3.9, 5.5, 6.3, 8.4, 11.6, 12.4, 12.5, 14.11. Moreover, the reports and studies as well as the university curricula prepared within the framework of the project are very important capacity building and awareness raising instruments towards environmental protection. If implemented, the prepared strategies would result in more waste being treated in an adequate manner, thus reducing the adverse impacts on human health and environment.

Rating for Environmental and Social Safeguards: Satisfactory

Country ownership and driven-ness

<u>Finding 36</u>: Governments were often actively engaged in developing waste strategies which confirms their interest on the issue. Not in all cases did the governments show clear ownership of the strategies to ensure implementation of the strategies. Political, financial, and institutional factors contributed to this.

309. Many countries were actively engaged in project activities. Waste becomes more a priority in the project countries. It is in most cases not a lack of driven-ness that is hampering the successful implementation of waste strategies, but lack of finances, time, diverging priorities and political factors.

310. Governments were actively involved in the development of waste management strategies. As is mentioned in section D - Effectiveness, many of the strategies have however not been officially approved yet, and most strategies have not been implemented, except for some small pilot activities. Generally, according to respondents to questionnaires, more support is needed – both on financial and technical level – to implement the strategies. Only in a few countries adequate funding is in place and financing schemes are being developed. Overall, governments showed a good level of engagement, however, there is still a lack of ownership to move from project outcomes to intermediate states. Possibly, a stronger involvement of regional organizations and banks can support countries to implement their strategies and thus improve sound waste management practices.

311. Countries were also involved in and contributed to the preparation of the Outlooks in different ways, inter alia, by providing information and data, responding to questionnaires, being active as member of the Steering Committee, participating in initial workshops, and reviewing and providing feedback on the Outlooks.

Rating for Country ownership and Driven-ness:	**Moderately satisfactory**

Communication and awareness raising

Finding 37: A communication strategy was prepared only for project 531.1 but it was only partially implemented due to a lack of a coordinated approach and allocation of resources. For project 531.2 and 534.1, no communication strategies were prepared. None of the projects adopted a structured approach to communication and awareness raising. Nonetheless, existing communication channels and networks were used effectively.

312. Information in the ProDocs on communication and awareness raising is very brief. For project 531.1 and 534.1 no communication strategies were developed, even though it was mentioned in the ProDocs that full strategies would be developed. For the GWMO, a communication strategy was developed, however it was only partially implemented.

313. The different guidelines and reports that were developed were made accessible on different websites, including IETC, UNEP, Researchgate and the 'kNOw Waste' platform.

314. For the GWMO and RWMO, launching events were organized, and the Outlooks were distributed at other workshops and conferences as well. Also, the authors circulated the Outlooks within their networks, making use of existing networks effectively. However, some respondents to interviews and questionnaires indicated that the launching and distribution of the GWMO and RWMOs were not always organised well or were delayed.

315. The launching dates of the GWMO and the RWMOs are presented in the following table:

Table 31: Launching of the Outlooks

Waste Management Outlook	Launching date	Location	Event
GWMO	7 September 2015	Antwerp, Belgium	ISWA World Congress
Mountain Regions WMO	12 December 2016	Vienna, Austria	World Mountain Day

Central Asia WMO	12 September 2017	Baltimore, USA	ISWA World Congress
Asia WMO	12 September 2017	Baltimore, USA	ISWA World Congress
Africa WMO	5 June 2018	Pretoria, South Africa	World Environment Day, Sustainability Week
Latin America and the Caribbean WMO	9-12 October 2018	Buenos Aires, Argentina	XXI Forum of Ministers of Environment from LAC
Small Island Developing States WMO	13 March 2019	Nairobi, Kenya	4th Session of UN Environment Assembly (UNEA-4)
West Asia WMO	01 June 2020	Online (COVID-19 restrictions in place)	

Source: project team, Internet.

316. The Operational Completion Report of project 531.1 mentions several press releases and articles that were published after the completion of the individual GWMO/RWMOs. For example, a press release was issued following the side event organised on the occasion of the World Mountain Forum in Uganda from 17-20 October 2016, to present the preliminary findings of the Waste Management Outlook for Mountain Regions. Another press release was published after the launching of the Waste Management Outlook for Mountain Regions in Vienna, on 12 December 2016. A few examples of articles are as follows:

Table 32: Examples of articles prepared based on WMOs

Title of the article	**Link**	
The value in trash: Interwaste poised to benefit from rising standards of living	http://view.ceros.com/moneyweb/the-investor-may-2017/p/11[18]	Information from GWMO
Digital India needs to make space for waste	http://www.dailyo.in/variety/waste-management-digital-india-swachh-bharat/story/1/15809.html[19]	Information from GWMO
Waste management outlook for mountain regions: Sources and solutions	Journal of Waste Management & Research, September 2017	Information on Mountain WMO

Source: Operational Completion Report for project 531.1, and internet research.

317. Within the framework of project 531.2, no structured outreach activities were carried out. Moreover, information on active use of social media and active updating and use of the 'kNOw Waste' platform was not reported.

318. Interviewees and respondents to all three questionnaires noted that the GWMO and RWMOs are actively used as reference documents, and these documents certainly contributed to a raise in awareness of stakeholders. The use of the GWMO and other IETC guidelines by governments, CSOs and the private sector was also reported in the 2017 IETC report "Results based evaluation of the impacts of guidelines and other IETC's activities on waste management policies and practices".

[18] Not accessible anymore.
[19] Accessed on 20 October 2020.

319. Awareness in countries was raised and this was mentioned as an important aspect by respondents to questionnaires. There were also respondents who said that more (and continuous) awareness raising is needed.

320. All in all, it can be concluded that communication and awareness raising was mostly implemented on an ad-hoc basis, without any structured or systematic approach. However, even with this ad-hoc approach, projects made effective use of existing communication channels and networks. Several of the main products that were produced and disseminated contributed to raising awareness of country stakeholders on sound waste management, and the Outlooks and other reports were actively used as reference documents. Also, the university curricula that were developed were used and are still being used within training workshops and courses by the universities, and two universities have internalized the curricula within their Master programme. The evaluation team considers these curricula to contribute to a longer-term change in attitudes and behaviour of a targeted group of the population. The increase in knowledge and use of several reports and guidelines were not documented well. Follow up surveys were not organized for all these guidelines and reports to assess the actual increase in knowledge and awareness (and behavioural change) of these products.

Rating for Communication and Awareness Raising: Moderately Unsatisfactory

Rating for Factors Affecting Performance and Cross-Cutting Issues: Moderately Satisfactory

VI. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

321. Based on the Findings of the project, the Evaluation Team has drawn the following main conclusions:

322. **Conclusion 1: Through project 531.1, IETC has contributed to the generation of high-quality reports on the state of waste management at global and regional levels. The GWMO and seven RWMOs successfully developed under the project are actively used by governments, civil society, academia and other organizations as reference, including for the development of waste management strategies and university curricula (project 534.1).** Respondents and interviewees overall very much appreciated the GWMO and the seven RWMOs and confirmed that they have been actively used as reference documents within project 534.1 when developing waste management strategies and university curricula. The Outlooks are important reports that provide consolidated information on waste management on a global or regional level. A second version of the GWMO is currently being prepared.

323. The Outlooks are considered as valuable reference documents of high quality. Even so, many respondents to the GWMO/RWMOs questionnaire remarked that there was a general lack of usable data at country, regional and global level, and in some cases also a lack of willingness to share data, discrepancy between data provided and other publications, lack of standard units of measurement and lack of homogenization of the definition of waste and the different types of waste. This made the development of all Outlooks a challenge; the authors used their expertise to include the data in the most coherent way possible. Lack of good data continues to be a challenge for the sound management of waste. (Findings 5, 6, 7,11, 28)

324. **Conclusion 2: IETC's constructive cooperation approach with key implementing project partners on waste management has been conducive for the effective delivery of project outputs, including an increase of knowledge and awareness on waste management in project countries. The UNEP ROs played a crucial role in the regions for achieving the foreseen outputs.** All three projects are considered as highly relevant by all the stakeholders with respect to the thematic area as well as for the regions. IETC worked with international organizations with expertise on waste management to implement the activities and deliver the outputs as planned in the ProDocs. The projects built on its implementing partners' extensive expertise and networks on waste management in the countries and/or region to facilitate project implementation. These implementing partners were, besides the UNEP ROs, AIT Bangkok, the Asia Foundation Mongolia, CEDARE, CSIR South Africa, GEC, ICLEI South Asia, IGES, ISWA, LEAD Nepal, WWF Bhutan. Moreover, partners such as ISWA provided conferences and meetings around the world where experiences and knowledge products were shared. These partnerships also contributed to new waste initiatives in other countries, such as the development of waste strategies supported by ISWA.

325. Consultations with key stakeholders confirmed the rise in awareness on waste management in project countries, as well as the interest and engagement of government stakeholders; the projects were highly relevant for the project countries

and governments often actively requested IETC's support. It should be noted that the increase of knowledge and awareness related to studies and reports other than the Waste Management Outlooks has been less well documented.

326. Overall, the access to project guidelines and reports, and the improvement in knowledge and awareness of project stakeholders due to these documents, resulted in the delivery of four outputs and the partial delivery of two outputs of the reconstructed ToC. For two outputs, it was not documented clearly how the production of certain guidelines led to an increase of knowledge of stakeholders. The main products and services as delivered by IETC and the project implementation partners are used by country stakeholders for policy making, implementation of activities, and research, and thus have also contributed to the achievement of the direct project outcomes. The development of waste management strategies - based on products and services provided by IETC and project partners - led to an increase in stakeholder cooperation and active political support by governments in most participating countries. (Findings 1, 8, 9, 11, 12, 18, 19, 28, 31, 32)

327. **Conclusion 3: University curricula on waste management have been prepared in three regions, providing a unique opportunity to approach waste management with a regional focus in a holistic and integrated way.** In the Asia Pacific, African and LAC regions, university consortia were set up and successfully developed holistic waste management curricula. The curricula were considered as unique by consulted stakeholders as they approached waste management in an integrated way and were tailored to the regional context. Parts of the curricula are still being taught at most universities of the consortia and were internalized in the Master programme of two universities. The LAC consortium remains active and has been formalised as the *University Consortium for the Sustainable Management of Solid Waste in Latin America and the Caribbean.* In the other regions, the consortia are less active even though individual institutions still use and teach parts of the curricula. In order for the university consortia to become more active and also extend the curricula to other universities, respondents noted that additional financial resources are needed. (Findings 7, 8, 11, 26)

328. **Conclusion 4: Most of the country and city waste management strategies have not been fully implemented yet. Changing government priorities and political factors have hindered the approval and implementation of such strategies. Project countries are not yet able to apply the waste hierarchy approach which would lead to environmentally sound waste management.** National and city waste management strategies were developed in 15 countries in Asia, Africa, and the LAC region. Although for at least eight strategies pilot projects were executed, most strategies were not implemented by the time of the terminal evaluation.

329. When developing strategies in general, there is always a risk of losing momentum for their approval and implementation, if legal frameworks have not been comprehensively updated or improved in all countries. Several waste management strategies developed with support of project 534.1 have not been approved yet and the long approval processes – that are often caused by changing priorities and political factors such as elections – contribute to losing momentum. There were no indications that project teams planned for the implementation of the strategies and follow-up in a structured and systematic way. In some countries, small pilot projects

have been implemented, and respondents noted that these small projects are important for stakeholders not to lose interest. However, no exit plans were developed to better prepare the countries, as well as IETC and implementing project partners, in ensuring (full) implementation of the strategies, as well as upscaling and replication after project completion.

330. In order for project countries to adequately address waste management and apply the waste hierarchy approach (Project Outcome), some steps are needed to ensure that the medium- and long-term impacts (Intermediate States and Impact) can be achieved. Project 521.1 provides an opportunity to follow-up with countries that need additional support to improve legal frameworks, implement strategies and assess financial mechanisms as well as opportunities for funding. When capacity building and awareness raising activities are sustained, and international cooperation continues and is strengthened (possibly via systematic and strategic partnerships with regional organizations and development banks), it is possible that these long-term results can be achieved. (Findings 4, 12, 13, 14, 24, 25, 27, 32, 33, 36)

331. **Conclusion 5: Not formally setting up the GPWM Secretariat did not have any direct adverse effects on the performance of project 531.2, nor on any of the other projects.** In 2016, IETC decided to not set up and maintain the GPWM Secretariat, which was one of the main activities of project 531.2. Instead, IETC together with ISWA continued to provide the services and deliver the knowledge products which were foreseen to be delivered by the GPWM Secretariat. The cooperation with ISWA, as well as with other project partners, has proven to be instrumental in the timely and effective delivery of studies, reports, and services. As shown in the section on Financial Management, no expenses have been charged to Output 2 of project 531.2, which was fully related to the maintenance of the GPWM Secretariat. The overall expenditure of project 531.2 was very low compared to the planned budget and secured funding, whereas all activities as foreseen were implemented. Although it can therefore be argued that not setting up the Secretariat was cost-effective, it possibly reflects a project design weakness; the ProDoc had identified the need for a Secretariat function and greater international coordination. It would have also been expected for IETC to find new possibilities (in cooperation with the donor and the UNEP Economy Division) to re-allocate and use the unspent funds for activities that required additional funding (e.g. communication, monitoring and reporting, as well as developing more guidelines and reports within the GPWM).

332. Even though not formally establishing the GPWM Secretariat did not have any direct adverse effects on project 531.2, nor on the other two projects, it is unclear if it had any other effects. The GPWM is still existing as a partnership, but it does not execute any activities as a partnership; cooperation between organizations of the partnership is done on an ad-hoc basis. Possibly, setting up a formal Secretariat, would have raised the visibility of the partnership itself and might have contributed to a more active partnership with more members. Moreover, the effect of an established Secretariat on improving and enhancing waste management activities and international cooperation in waste management in the long term might well have been beneficial. (Findings 9, 10, 16, 18, 19, 28, 31)

333. **Conclusion 6: Aspects on human rights, gender and vulnerable groups are important in waste management; women and other vulnerable groups often work in the informal**

waste sector. Gender and vulnerable groups have been considered in some of the output reports and studies but were not addressed comprehensively throughout all project activities. The report "Gender and Waste Nexus – Experiences from Bhutan, Mongolia and Nepal" presented good reasons why gender is an important aspect to be considered in waste management, e.g. because women play an important role in the informal waste sector and in collecting household waste. The report provided relevant examples from the three countries. In the Outlooks, university curricula and waste management strategies, gender and vulnerable groups were often considered, however not always comprehensively. However, it was often noted that gender issues need to be further considered and that specific country context and experiences on gender and vulnerable groups need to be included in the country and city waste management strategies, as well as in other activities on waste management. (Finding 34)

334. **Conclusion 7: Information and knowledge management at IETC, as well as monitoring and reporting processes for the projects were weak. This hampered the adequate documentation of changes in implementation, lessons learned and IETC's institutional memory.** The corporate PIMS system used for project reporting and the Operational Completion Reports only presented quantitative information (e.g. number of activities and supported countries) and provided limited qualitative details on what results were achieved (beyond output level), how these were achieved and the factors affecting performance (why). Project reporting had no information on how certain results were measured and sometimes presented inaccurate and contradictory information, when compared with responses received by the evaluation team during this assessment.

335. The M&E plans in the ProDocs were very limited in detail and not all planned monitoring exercises at project design were executed. The ProDocs contained inconsistencies in definitions and descriptions of outputs, outcomes, indicators, and milestones, which made it at times difficult to understand what the projects aimed to achieve. As no comprehensive M&E plans were implemented, there was a missed opportunity in terms of improving project implementation while they were still active. Although there were no major negative consequences in the effectiveness of the projects, weak information and knowledge management, as well as weak monitoring and lack of documentation of major changes in the project and budget, can, in the long run, lead to a loss in institutional memory and less effective delivery of outputs. When project managers fail to systematically record what has been done, where and how results have been achieved and major changes in the project document, there is a risk of not considering these experiences and lessons in the development of new projects. Weak information and knowledge management may also decrease the productivity of project managers, as they cannot effectively build synergies between old and new projects.

336. When information management is done correctly, it also contributes to the visibility and validity of projects, as it will become easier to report effectively to (potential) donors. Financial information can also support this process; although IETC was not required to document co-finance, stakeholders mentioned that local cash and in-kind contributions were provided to the development of the waste management strategies and implementation of small pilot projects. A record of co-finance would help

illustrate ownership at local and national level as well as raise donor interest, and serve as a means of accountability.

337. Finally, the projects did not implement or adopt structured communication strategies with a separate allocated budget. This would have been conducive to enhance not only visibility of project results, but also awareness about waste management. Only project 531.1 had a communication strategy, which was partially implemented. (Findings 2, 3, 10, 16, 17, 21, 22, 23, 30, 37)

338. **Conclusion 8: Financial management adhered to UNEP procedures and formats. However, all three projects underspent, especially project 531.2, and no measures were taken to address this. Several important decisions taken at projects' implementation were not reflected in project and budget revisions.** All three projects underspent compared to the planned budget and actual secured funding. For project 531.2, the very low expenditure was mainly due to the decision to not formally set up the GPWM Secretariat. For the other two projects, no clear explanations were given related to unspent funds. Most of the funds (94%) that were not spent, were reallocated to project 521.1. It is unclear if the project managers and financial staff discussed the low expenditure, and if any suggestions and plans were made (in cooperation with the donors) to re-allocate and use the remaining unspent funds to conduct extra activities to strengthen the projects' results, or by carrying out activities that were planned but had not been executed (including a survey on the waste management strategies, the preparation and implementation of communication strategies, and the establishment of an Expert Group for the university curricula).

339. All three projects had several budget revisions. These revisions did not reflect important changes and decisions in the projects' implementation strategies. For example, the revisions do not show that the GPWM Secretariat was not set up or that all budget for M&E of the three projects was charged only to project 534.1 (and thus it was not recorded what happened to the M&E budgets of projects 531.1 and 531.2). The revisions do not reflect the reallocation of budgets to project 521.1. The reallocation of funds to this project can however be extracted from the revisions of project 521.1 itself. (Findings 15,16)

B. Summary of project findings and ratings

340. The table below provides a summary of the ratings and findings discussed in chapter V - Evaluation Findings. Overall, the projects demonstrate a rating of **'Moderately Satisfactory'**. The projects were all highly relevant to UNEP priorities, as well as to the regions and countries participating in the projects. The strategic cooperation with project implementation partners resulted in the delivery of four and partial delivery of two outputs. The two direct outcomes were fully achieved, while the overall project outcome was only partially achieved, as most national and city waste development strategies were not implemented (yet), and legal frameworks not always addressed comprehensively. The project generated high quality guidelines and studies, specifically the GWMO, RWMOs and university curricula. The information management and M&E processes were weak, as limited qualitative information was prepared and the M&E plans only partially implemented.

Table 33: Summary of project findings and ratings

Projects 531.1, 531.2, 534.1:		
Criterion	**Summary assessment**	**Rating**
Strategic Relevance		**HS**
1. Alignment to UNEP MTS, PoW and Strategic Priorities	The Projects are aligned with MTS 2010-2013 and 2014-2017, under the thematic areas: environmental governance, harmful substances and hazardous waste, and resource efficiency – sustainable consumption and production. The projects are aligned with the UNEP PoW 2014-2015. Projects are based on, and mentioned in, UNEA decisions.	HS
2. Alignment to Donor strategic priorities	Projects are in line with donor strategic priorities. Japan is one of the leading countries with regard to technologies dealing with waste in a sustainable manner and the Ministry of Environment supports waste management and other projects in the Asia-Pacific region.	HS
3. Relevance to regional, sub-regional and national environmental priorities	The projects are aligned with regional, sub-regional and national priorities. The thematic area of waste is an ever-growing serious challenge in all the project countries and regions. UNEP was requested by different countries and regional organizations for its support on waste management via, inter alia, integrated waste management solutions.	HS
4. Complementarity with existing interventions	The projects complement other existing interventions, inter alia, other publications and conventions related to waste, as well as partner organizations' efforts in waste management. ISWA, for example, has a wide network of stakeholders in waste, also carried out projects in cooperation with other partners, and was a key partner in all 3 projects. UNEP ROs and some Divisions were involved in the projects in diverse roles, although information on directly related complementarity with other UNEP interventions was not given.	HS
Quality of Project Design	The Problem, situation analysis and strategic relevance are clearly described in all three documents. All project documents contain the most relevant information as prescribed by the format, however some sections are only very briefly described (for example on sustainability, communication, resource mobilization, gender and marginalized groups). The documents contain inconsistencies in outputs, outcomes and milestones, and the log frames were not always completely in line with the narrative text.	**S**
Nature of External Context	Nature of External Context had limited influence on project 531.1 and 531.2, as in these projects mostly knowledge products were prepared. Political factors (diverging priorities, elections, staff changes in ministries) delayed the development and approval of several of the waste management strategies implemented within project 534.1.	**F**
Effectiveness		**MS**
1. Availability of outputs	Four outputs were delivered, and two outputs were partially delivered. The services and knowledge products provided by IETC and its project partners led to reported increases in knowledge and raised awareness of project stakeholders and beneficiaries. The GWMO and RWMOs are frequently used as reference documents, also within other activities of the projects, such as the development of university curricula and waste management strategies. The rise in awareness and knowledge related to other studies, guidelines and reports prepared within the projects are less well documented and therefore two outputs related to these guidelines were assessed as partially delivered. Several regional partnerships were set up that contributed to the delivery of project outputs, such as partnerships with ASEAN, ABRELPE and AIDIS.	S

Projects 531.1, 531.2, 534.1:		
Criterion	**Summary assessment**	**Rating**
2. Achievement of project outcomes	The two direct outcomes were fully achieved, and the project outcome was partially achieved. The respondents to the questionnaires and interviewees confirmed that knowledge products and services that were provided by IETC, ISWA and other project partners were increasingly used by countries and other stakeholders as reference documents to e.g. develop waste management strategies or mercury inventories. Stakeholders in countries cooperated actively on the development of strategies and most governments were actively engaged. Many countries did not develop a legislative framework, and only briefly assessed this in their strategies. Also, the development of a strategy did not automatically lead to countries being able to apply the waste management approach. Most strategies have not yet been (fully) implemented.	MS
3. Likelihood of impact	The likelihood of impact is assessed as moderately likely. A follow-up project 521.1 is being implemented, which includes GWMO-II and waste management strategies at national and local levels in other countries. With the support of countries and other relevant stakeholders, with adequate financing, implementation of waste management strategies, and upscaling and replication, countries would be able to implement and improve sustainable management of waste and this could in the long run lead to improved environmental and health conditions in project countries (impact).	ML
Financial Management		**S**
1. Adherence to UNEP's financial policies and procedures	The projects made use of the Umoja financial system and were therefore in line with UNEP's policies and procedures. The Fund Management Officer and Management Assistant at IETC communicated frequently and took joint decisions. However, changes in implementation structures (e.g. the decision to not set up the Secretariat at the IETC, not having a PSC for project 534.1, and moving all M&E costs to project 534.1) were not formally communicated or reflected in project/budget revisions.	S
2. Completeness of project financial information	The evaluation team received the Operational Completion Reports, that contained summary tables on funding sources and expenditure, and also received allotments reports and Excel files with activity expenditure. The rating for this criterion is not related to the correctness of the information provided to the evaluation team, but rather to the timelines of the information received As the budget lines in Umoja are different than the budget lines in the original ProDoc budgets, and only for two projects expenditure on output level could be provided, it was difficult to assess expenditure and cost-efficiency on more detailed level, e.g. on activity level: the information available and provided did not always give a clear indication on how resources were used and if budget was spent effectively. Additionally, all three projects underspent, most specifically project 531.2. No information was provided by IETC if any measures were taken to increase expenditure. Initially no exact information was supplied on reallocation of unspent funds to follow-up project 521.1. However, the evaluation team received this information at the end of the evaluation report review phase.	MS
3. Communication between finance and project management staff	Overall, the communication between project management staff, the Financial Assistant at IETC and Fund Management Officer was organized well. The Fund Management Officer communicated on an almost daily basis with the Financial Assistant. No specific issues came to the fore during the evaluation. The Operational Completion Reports were only completed during the TE, and also the summary financial tables were only finalized during August-September 2020.	S

Projects 531.1, 531.2, 534.1:		
Criterion	**Summary assessment**	**Rating**
Efficiency	IETC partnered with ROs and several other organizations using their networks to support the timely project implementation and achievement of results. Some of the project partners were involved in more than one project and could make use of knowledge gained in one project for the benefit of the other(s). However, the Secretariat of the GPWM was not established, and some delays took place both in the Outlooks' project, as well as the waste management strategies.	**S**
Monitoring and Reporting		**MU**
1. Monitoring design and budgeting	Only the ProDocs of projects 531.2 and 534.1 included tables with indicators, targets, data sources, data collection methods, budget for M&E per outcome and output, and responsible staff per outcome and output level. Indicators were not always phrased adequately. All M&E plans were very concise. No surveys to assess the increase in knowledge or awareness from the delivered services and products were envisaged. There were also inconsistencies between the outputs, outcomes and milestones of the log frame and the narrative text in the main part of the ProDocs. Therefore, it was not always easy to understand what the projects aimed to achieve.	MU
2. Monitoring of project implementation	The M&E plans in the ProDocs were brief and were only partially implemented. Several planned activities, such as a survey on the waste management strategies and the establishment of an Expert Group to assess to university curricula were not conducted. All M&E costs were charged to project 534.1, but these related mostly to the terminal evaluation expenses.	MU
3. Project reporting	Half-yearly PIMS reporting was carried out for all 3 projects. An Operational Completion Report was prepared for each project, though they were finalised only in mid-2020. The information provided in the corporate PIMS system and the Operational Completion Reports mostly provided quantitative information and only limited qualitative information. Project reporting focused on figures and did not present qualitative details on results achieved, how they were achieved, why they were achieved or not, and on how certain results were measured. Some of the information was not complete, was inaccurate and/or contradictory to information received via interviews and questionnaires.	MU
Sustainability		**ML**
1. Socio-political sustainability	Social and political factors influenced project 534.1 to some extent. Countries are interested in the projects, however, when it comes to implementation of waste management strategies, governments may not always prioritise waste. No exit strategies were prepared at the start of the development of waste strategies, which could have contributed to implementation of these strategies.	ML
2. Financial sustainability	Factors relating to finance did not affect projects 531.1 and 531.2. Lack of funds and adequate financing schemes in countries within project 534.1 has affected the implementation, upscaling, and replication of waste management strategies in the countries. As it was not possible to establish one overall rating for all three projects (since financial sustainability did affect project 534.1 but not the other two projects), the evaluation team decided to not rate this factor.	Not rated

Projects 531.1, 531.2, 534.1:		
Criterion	**Summary assessment**	**Rating**
3. Institutional sustainability	There are no major issues regarding institutional sustainability in project 531.1. A GWMO-II is currently being prepared. Project 531.2: The Secretariat function of the GPWM has not been set up. The knowledge products and services planned to be delivered by the Secretariat, continued to be delivered by IETC and ISWA. ISWA has a wide network of stakeholders in waste, is carrying out the work already, and was a key partner in the three projects. 534.1: Several strategies were prepared and not implemented. Implementation depends to a large degree on the national and local governments. Diverging priorities, insufficient capacity on waste management, and staff turnover within governmental bodies, affects institutional sustainability on national and local level. There has been a decrease in staff at IETC during implementation of the three projects. This may affect the institutional sustainability at the results in the long run. As financial sustainability in project 534.1 is Moderately Unlikely, whereas for the other two projects it would be Moderately Likely, the evaluation team has not established an overall rating for this factor.	Not rated
Factors Affecting Performance		**MS**
1. Preparation and readiness	Although there were some delays in starting project activities due to the long process to issue contracts, overall, preparation and readiness of all involved were well organized.	S
2. Quality of project management and supervision	Inputs and support from IETC were highly valued and appreciated by all project stakeholders. The decrease in staff at the IETC possibly influenced the management of projects, especially monitoring and reporting, as well as information and knowledge management.	MS
3. Stakeholders' participation and cooperation	Active and broad cooperation resulted in the outputs being delivered. IETC's partnership with key implementation partners was strategic and conducive to achieving the outputs. The partnership with ASEAN was non-formalised; there was no partnership with development banks.	S
4. Responsiveness to human rights and gender equity	All three ProDocs made reference to gender and vulnerable groups but did not specify human rights concerns. They did not clarify how these groups were planned to be involved in the three projects. A 'Gender and Waste Nexus' Report was prepared for Bhutan, Mongolia and Nepal, but gender has not been comprehensively addressed throughout all project activities.	MS
5. Environmental, social and economic safeguards	All three ProDocs include 'Other Socio-Economic Issues and Environmental Safeguards', and reported on these in the Operational Completion Reports. No fundamental safeguarding issues were reported during project implementation. UNEP made efforts to keep carbon footprint minimal, for example, via making e-copies of the reports and Outlooks available.	S
6. Country ownership and driven-ness	Many countries were actively engaged in project activities. In most cases, it is not a lack of driven-ness that is hampering the successful implementation of waste strategies, but lack of finances, time, diverging priorities and political factors. Some countries did not show clear ownership in the uptake of the strategies that were developed.	MS
7. Communication and public awareness	The ProDocs contained only brief information about communication and awareness raising. A communication strategy was prepared only for project 531.1, and this was only partially implemented. Many stakeholders pointed out the need for more and structured awareness-raising, as well as a separately allocated budget for this.	MU

Projects 531.1, 531.2, 534.1:		
Criterion	**Summary assessment**	**Rating**
Overall Project Performance Rating		**MS**

C. Lessons learned

Lesson Learned #1:	**Selecting implementing partners with substantive expertise, networks and interests on waste management was crucial for the successful achievement of expected projects' outputs.**
Context/comment:	Each project implementation partner had specific expertise and/or knowledge of countries and regions. By making use of this expertise and the vast networks of project partners, it was possible to implement activities and achieve outputs effectively and in a timely manner. Interviewees and respondents overall noted that the support provided by IETC and the implementation partners was very valuable in the preparation of the Outlooks, development of the waste management strategies and the university curricula. The materials prepared and the services delivered by IETC, ISWA and the other project partners have led to a gain in knowledge and awareness of the involved stakeholders. The Outlooks were actively used as reference documents for the development of waste management strategies and university curricula.
Cross-reference(s) to rationale and supporting discussions:	Conclusions 1,2 Findings 5, 8, 9, 11, 18, 19, 28, 31, 32

Lesson Learned #2:	**Clear communication to stakeholders is needed to provide realistic expectations of what can happen after the project finishes (e.g. exit/follow-up strategy for actual implementation of waste management strategies).**
Context/comment:	Interviewees and respondents in some cases remarked that it would have been useful to clarify expectations and responsibilities beforehand. These remarks were made by project partners, persons who contributed to the Outlooks and university curricula, and also by stakeholders involved in the development of waste management strategies. Specifically, in the case of the waste management strategies, it would have been good to write down expectations, responsibilities, and possibilities for follow-up in exit strategies, to better ensure that

	strategies developed can and will be implemented, also after project end. These exit-strategies can include proposals on financial aspects and sustainability. and can help to prevent that stakeholders have different notions on sustaining project results after project completion.
Cross-reference(s) to rationale and supporting discussions:	Conclusions 4 Findings 13, 14, 25, 27, 32, 33, 36

Lesson Learned #3:	**Continued strengthening of local capacities and continued awareness raising is vital for effective and sustainable development (and implementation) of the waste management strategies.**
Context/comment:	The development, approval and implementation of waste management strategies can sometimes take a long time. Approval in many cases also depends on political and other factors, for example change of government staff and elections. COVID-19 was also mentioned as a factor in the delay of the waste management strategy approval. As these processes can take a long time, and because additional information (e.g. on new waste streams or improved data) may need to be included in the strategies and need to be considered when improving waste management, it is necessary to ensure that local capacities are sustained and not heavily affected by turnover of staff. Therefore, it is important to carry out regular capacity building activities in project countries. Respondents also added that awareness on waste and waste management was raised in countries but that it is necessary to continue doing this regularly.
Cross-reference(s) to rationale and supporting discussions:	Conclusion 4 Findings 4, 13, 14, 24, 25, 27, 36

Lesson Learned #4:	**Knowledge and information management need to be set up within IETC/UNEP in such a way that it provides adequate information on why and how (and is more specific on the 'what'), including what were the main results (and how these were measured), and in a way that the institutional memory is not affected by a decrease in staff or staff turnover.**
Context/comment:	IETC prepared PIMS reports and Operational Completion Reports at the end of the projects. Two M&E plans in the

	ProDocs provided details on indicators, targets, data sources and collection methods, frequency, budget, and responsible staff. However, all M&E plans were very brief and were only partially implemented (e.g. no mid-term evaluations were conducted). The reporting contained only limited in-depth analyses. Quantitative Information was provided, but little detail on what, how and why activities were implemented. It was not clear how results were measured. Overall, the knowledge and information management were weak (possibly in part due to a decrease in staff and staff changes). Weak knowledge and information management has at times delayed the availability of timely information to the evaluation team. In some cases, this also meant that it could not be fully clarified what exactly was done within certain project activities, and some of the information available proved to be inaccurate or contradictory to responses from stakeholders.
Cross-reference(s) to rationale and supporting discussions:	Conclusion 7 Findings 21, 22, 23, 30

Lesson Learned #5:	**Comprehensive financial information is important to measure the efficiency of the project and better understand how resources were used across activities and outputs.**
Context/comment:	IETC and the Fund Management Officer provided the financial information available in the Umoja system to the evaluation team. The change to Umoja has affected possibilities of understanding the efficiency of project expenditure. The budget lines in Umoja were different than the budget lines in the original budgets in the ProDoc and could only be compared to a limited level. Only for two out of three projects information on expenditure on output level was available. The evaluation team could therefore only draw limited conclusions on how resources were used and if budget was spent effectively. Comprehensive financial information could also be helpful during project implementation for project managers to understand how resources are spent and if there is a need to adapt project expenditure and activities. Fortunately, Umoja can reportedly provide more detailed information, also on activity level, for projects that are currently being implemented.
Cross-reference(s) to rationale and supporting discussions:	Conclusion 7, 8 Findings 15, 16, 17, 23

Lesson Learned #6:	**A more systematic approach to communication, awareness raising, and exchange of experiences has the potential of increasing the visibility of the project (and its activities and reports such as the GWMO).**
Context/comment:	Although the ProDoc of project 531.2, and 534.1 mentioned that IETC would develop specific project communication strategies, they were not prepared. For the GWMO, a communication strategy was developed, however it was not fully implemented. The different guidelines were distributed via different meetings, conferences and websites (e.g. IETC, UNEP, researchgate and the 'kNOw Waste' platform). For the Outlooks launching events were organized. However, communication and awareness raising activities were done on an ad-hoc basis and were not monitored or evaluated during project implementation. Respondents and interviewees remarked that more awareness raising and communication activities should have been implemented to raise the profile of the projects and their results, and specific budgets allocated. They also noted that awareness raising is vital and there is a need in countries to continue and improve awareness raising. A more systematic approach to communication and awareness raising would have contributed to this.
Cross-reference(s) to rationale and supporting discussions:	Conclusion 7 Findings 37

Lesson Learned #7:	**It is important to address gender comprehensively within all project activities related to waste management; as the Gender and Waste Nexus Report has shown, women and minority groups play an important role in waste management, specifically in the informal waste sector.**
Context/comment:	Some of the Outlooks have included gender as case studies and fact sheets. Within the university curricula and waste management strategies, gender and vulnerable groups were also regularly considered, but not always in detail. A Gender and Waste Nexus Report with experiences from Bhutan, Mongolia and Nepal was prepared which has been appreciated by stakeholders, some of whom also pointed out the need for integrating gender/vulnerable groups and human rights in a more structured way into future Outlooks, waste management strategies and the university curricula. Respondents and interviewees also pointed out that it would be

	important to prepare similar reports as the Gender and Waste Nexus report for other countries as well.
Cross-reference(s) to rationale and supporting discussions:	Conclusion 6 Finding 34

D. Recommendations

Recommendation #1:	**UNEP/IETC to follow-up with all countries (and partner organizations) that developed waste management strategies and confirm which strategies have been officially adopted, which are being implemented, and what are further needs for support.**
Challenge/problem to be addressed by the recommendation:	In 15 countries, city and national waste management strategies have been developed. In total, 9 strategies have been officially approved, 11 strategies were not (yet) adopted and for 6 strategies, it was unclear. Small pilot projects have been executed for eight strategies, but overall, the strategies were not (fully) implemented yet. Also, respondents requested further support from IETC or its implementing partners, e.g. related to technical support or assistance in securing additional funding. As it is clear that many countries are not yet able to apply sound waste management and no follow-up strategies were prepared for these waste management strategies within project 534.1 (see also recommendation #2), it is recommended that IETC and its project partners follow-up directly with the main partners in the countries to see if any immediate support can be provided or to assist the countries in finding appropriate support if requested.
Priority Level:	Critical recommendation
Type of Recommendation:	Project recommendation
Responsibility:	IETC project manager(s)
Proposed implementation time-frame:	Within the next 6 months
Cross-reference(s) to rationale and supporting discussions:	Conclusions 4 Findings 4, 13, 14, 24, 25, 27, 32, 33, 36

Recommendation #2:	**UNEP/IETC to prepare exit strategies/follow-up strategies in their future projects, including the 521.1 project. These should be done with countries, universities, and partner institutions to clarify expectations, responsibilities, and ownership for after the projects ends (including discussing and clarifying future funding possibilities at project start).**

Challenge/problem to be addressed by the recommendation:	During the evaluation, it became clear that waste management strategies were developed, and waste curricula were prepared. These activities were overall highly appreciated by the stakeholders involved. However, the waste strategies have not been fully implemented and not all university consortia are active or were able to extend activities to other universities. Interviewees and respondents noted that expectations at the start of project activities were not always clear. It was often not discussed in a timely manner how project results could be sustained and extended after project completion. As long-term results depend on the sustainability of project results, it is recommended that follow-up strategies are prepared and implemented. The strategies need to be prepared in time well before the activity to which the follow-up strategy refers is completed, and should include factors related to political, institutional and financial sustainability. The strategy should also clarify the responsibilities of the different partners involved, also after project end. Project 521.1 may present a good opportunity to prepare exit strategies for e.g. development of new country and city waste management strategies.
Priority Level:	Critical recommendation
Type of recommendation:	Project
Responsibility:	IETC and project implementation partners
Proposed implementation time-frame:	Immediately within 521.1
Cross-reference(s) to rationale and supporting discussions:	Conclusions 3,4 Findings 4, 8, 13, 14, 24, 25, 26, 27, 32, 33, 36

Recommendation #3:	**UNEP/IETC to improve monitoring & reporting and information and knowledge management procedures, with a view of ensuring that information is provided not only on what has been achieved (results), but also on how these were achieved and measured (process), and that these are not affected by staff turnover.**
Challenge/problem to be addressed by the recommendation:	IETC's information and knowledge management was weak, and no clear M&E processes were followed. The PIMS and Operational Completion reports provided quantitative information (such as numbers of countries involved, or number of pilot projects implemented) but provided little qualitative information on what exactly was done, why and how. Some of the information in these reports proved to be inaccurate or incorrect. Also, little information was provided on how results were measured. Weak information and knowledge management delayed the availability of timely information for the evaluation

	team. This can also have adverse effects in the long run, as missing information and in-depth analyses can of course not be considered for future project activities. It has been pointed out that PIMS cannot always ensure adequate information management even if the project managers complete all required information. Therefore, it is a recommendation to UNEP to improve the PIMS system in such a way that it generates more adequate qualitative information on what was done, on which results were achieved and how these were measured. IETC can improve its information and knowledge management, as well as M&E, by collecting more monitoring data during implementation of activities which will help to improve the quality of Operational Completion Reports. Additionally, IETC should make sure that the M&E plans in project documents are comprehensive, correspond adequately with the Logical frameworks and are fully implemented (e.g. also mid-term reviews are conducted).
Priority Level:	Critical recommendation
Type of recommendation:	Project and UNEP-wide
Responsibility:	UNEP and IETC
Proposed implementation time-frame:	Immediately
Cross-reference(s) to rationale and supporting discussions:	Conclusions 7 Findings 21, 22, 23, 30

Recommendation #4:	**IETC to prepare a methodical communication strategy for current and future projects (for example, those projects related to the dissemination of flagship publications or strategies) and include a separate budget for the communication activities.**
Challenge/problem to be addressed by the recommendation:	No communication strategies were prepared for two of the projects, and for the 531.1 project, the developed strategy was not fully implemented. Interviewees and respondents stressed the importance of communication and awareness raising and highlighted that this required further attention and resources. It is therefore recommended for IETC to develop a comprehensive communication strategy for current and future projects and allocate adequate budget to implement the communication and awareness raising activities. If a communication strategy has already been prepared for project 521.1, it is recommended to monitor whether updates are necessary and whether the activities as stated in the strategy have been and are being implemented in a coordinated manner. Preparing and implementing methodical communication strategies is crucial for projects focused on preparing flagship

	publications, such as the Global Waste Management Outlooks and Regional Waste Management Outlooks. For these specific projects, IETC could explore opportunities for support and guidance from the UNEP Communications Division.
Priority Level:	Important
Type of recommendation:	Project
Responsibility:	IETC
Proposed implementation time-frame:	Within the next 6 months
Cross-reference(s) to rationale and supporting discussions:	Conclusion 7 Findings 37

Recommendation #5:	**UNEP/IETC to explore stronger and more systematic partnerships with, and involvement of, regional organizations (for example ASEAN and development banks) in project implementation and follow-up after project completion.**
Challenge/problem to be addressed by the recommendation:	Waste management strategies have been developed but have not been fully implemented. Respondents mentioned that they are not yet able to manage waste in an environmentally sound manner as they lack practical experience. Although regional partnerships have been set up, e.g. with ASEAN, these partnerships have not always been formalised and cooperation is ad-hoc. A more systematic and strategic approach to working with regional organizations can assist IETC and project countries in ensuring that project results are achieved and, above all, sustained, and can help to advance replication to other countries in the regions. It has been suggested by interviewees and respondents that it would be good to assess whether regional banks could be involved to support countries in the implementation of their waste management strategies. While it is recognized that countries need to take full ownership of their waste management, in the initial phases, cooperation with regional banks could be valuable.
Priority Level:	Opportunity for improvement
Type of recommendation:	Project
Responsibility:	IETC
Proposed implementation time-frame:	Within the next 6 months
Cross-reference(s) to rationale and supporting discussions:	Conclusions 4 Findings 4, 13, 14, 24, 25, 27, 32, 33

Recommendation #6:	**UNEP/IETC should systematically integrate gender as an important aspect in all ongoing and future waste management projects and consider preparing a gender and waste nexus or similar report for other countries as well.**
Challenge/problem to be addressed by the recommendation:	It is widely recognized that women often play a large and significant role in the informal waste sector, but the informal sector has poor access to social protection. Respondents to questionnaires and interviewees remarked that gender and vulnerable groups were often considered in developing Outlooks, university curricula, and waste management strategies. When looking at the questionnaires on waste management strategies, about half of the respondents reported the involvement of minority and/or vulnerable groups (i.e. indigenous people, women, youth). Some respondents underlined that the focus on these issues had been limited and expressed the need to further explore the connection between waste and gender, and how to best integrate these issues on a country and regional level within waste management strategies, Outlooks, and university curricula.
Priority Level:	Opportunity for improvement
Type of recommendation:	Project
Responsibility:	IETC
Proposed implementation time-frame:	Within the next 12 months
Cross-reference(s) to rationale and supporting discussions:	Conclusion 6 Finding 34

Recommendation #7:	**UNEP/IETC should consider documenting co-finance (cash and in-kind) of project activities at national and local level. This may help to raise the interest in and validity of these projects, as well as visibility of partner contributions.**
Challenge/problem to be addressed by the recommendation:	IETC was not required to keep records of cash and in-kind co-financing, and therefore, this has not been documented. Respondents to questionnaires mentioned that local funds and in-kind donations have contributed to the development of strategies and implementation of small pilot projects. In order to acknowledge these contributions, the evaluation team recommends that IETC (via the project implementation partners) keeps better track of co-finance. For many donors it is important to see that governments and local stakeholders actively support the project by contributing with finances, time, human resources, and logistics. It can also help countries and IETC to raise the interest of new donors that could support better implementation of waste management strategies.

Priority Level:	Opportunity for improvement
Type of recommendation:	Project and UNEP-wide
Responsibility:	IETC project staff, in cooperation with project implementation partners
Proposed implementation time-frame:	Within the next year
Cross-reference(s) to rationale and supporting discussions:	Conclusions 7 Finding 17

Recommendation #8:	**UNEP/IETC should consider working on a global level to homogenize the definitions of wastes, and support countries, via projects, in the collection of relevant waste data and set-up of waste databases.**
Challenge/problem to be addressed by the recommendation:	Stakeholders highlighted the key challenge of lack of accurate, reliable, updated and harmonized data and databases on waste, within and across regions, including by types of waste and the lack of homogenization of the definition of waste and different types of waste. Many countries lack capacity and resources to collect waste-related data. This would be a good opportunity for UNEP, including IETC, to work on the homogenization of the definition of waste and types of waste, as well as to provide support to countries to start collecting and monitoring waste-related data, according to the homogenized definitions, and prepare country waste databases. This would also facilitate data collection for future waste management reports and assessments, including the GWMO and RWMO reports, as well as making waste data comparisons, thus enabling international organizations and potential donors to better cater to the needs of the countries related to waste management.
Priority Level:	Opportunity for improvement
Type of recommendation:	Project
Responsibility:	UNEP/IETC project staff, in cooperation with project implementation partners and UNEP Sub-Programme on Chemicals and Waste, as appropriate.
Proposed implementation time-frame:	Commencement within the next year
Cross-reference(s) to rationale and supporting discussions:	Conclusion 1 Finding 6

Recommendation #9:	**UNEP should ensure that due process is followed in**

	documenting, reporting on and approving major changes and revisions to projects. If these programmatic revisions have financial implications, programmatic and financial modifications should be developed side by side, in accordance with the UNEP Programme Manual.
Challenge/problem to be addressed by the recommendation:	Project 531.2 underwent a major change during its implementation, as IETC decided not to officially set up the Secretariat. Instead, IETC provided the Secretariat functions in an ad-hoc basis with its project partners, mainly ISWA. The UNEP Programme Manual stipulates that "when programmatic changes are required, a formal review and approval process is applied. If financial changes affect the results framework or the project funding, then the revision must be considered a programmatic revision and programmatic and financial modifications must be developed side by side". However, the change made in project 531.2 was not recorded or approved. While IETC followed adaptive project management practices by not setting up the Secretariat, as this was no longer considered necessary, transparent project management measures - including adequate reporting of changes during project implementation - should have been followed in compliance with UNEP's Programme Manual and as part of the accountability mechanisms. As project revisions might imply lengthy approval processes, UNEP should explore the possibility of providing project teams with a simplified approval process for project revisions. Not recording and officially communicating these major project changes to donors, and not fulfilling the accountability requirements towards donors, could also pose a reputational risk for the organization and damage donor relations in the long run.
Priority Level:	Important
Type of recommendation:	UNEP-wide
Responsibility:	UNEP Corporate Services Division, Quality Assurance Section and Division Directors
Proposed implementation time-frame:	Commencement within the next year
Cross-reference(s) to rationale and supporting discussions:	Conclusion 7 Findings 10,16

ANNEX I. EVALUATION FRAMEWORK

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
	A. Strategic Relevance			
Key question for Strategic Relevance: To what extent were the project objectives relevant and suited to the priorities, policies and strategies of the implementing agencies, donors and target groups?				
i.	Alignment to the UNEP Medium term strategy (MTS), programme of Work (PoW), and other strategic priorities	- Were the projects in line with UNEP's mandate and how? - Are the projects responding to UNEP strategies and programme of work, and how (qualitative and quantitative contributions)?	- Degree of alignment with UNEP MTS and PoW - Degree of alignment with UNEP Bali Strategic Plan for Technology Support and Capacity Building (BSP) and South-South Cooperation (S-SC)	- UNEP publications (MTS, PoW) - ProDoc - PIMS reports/progress reports - Interviews with IETC project coordinators - Interviews with AIT, IGES, ISWA staff and other project partners, staff - UNEP publications (including BSP, S-SC)
ii.	Alignment to Donor Strategic Priorities (Government of Japan, Norway, Germany, etc).	- Are the projects responding to GEF/ Donor Strategic priorities, and how (qualitative and quantitative contributions?)	- Degree of alignment with other UN/donor strategic policies	- ProDoc - PIMS reports/progress reports - Interviews with IETC project coordinators - Interviews with AIT, IGES, ISWA staff and other project partners, staff - Interviews with donors (e.g. the Government of Japan)
iii.	Relevance to Regional, Sub-Regional and national Environmental Priorities	- Are the projects responding to the stated environmental concerns and needs of the countries/sub-regions/regions?	- Degree of alignment with: * National and (sub) regional plans, strategies, policies and agreements	- ProDoc - PIMS reports/progress reports - Regional strategies and agreements - Interviews with IETC project coordinators - Interviews with AIT, IGES, ISWA staff

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
				and other project partners, staff - Interviews/surveys with government representatives
iv.	Complementarity with existing interventions	- To what extent did the projects, at design and/or mobilization phase, take account of ongoing and/or planned initiatives? - To what extent did the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure that the projects were complementary to other UNEP and UN interventions, and optimize any synergies?	- Degree of potential synergies identified - Absence of duplication of efforts - Potential duplications identified at design stage - Degree of identified complementarities with other projects	- Pro Doc - PIMS reports/progress reports - Interviews with IETC project coordinators - Interviews with AIT, IGES, ISWA staff and other project partners, staff - Interview with UNEP's Sub-programme coordinator on Chemicals and Waste, UNEP Regional Officers responsible for Chemicals and Waste - Interview with project managers for other UN projects or initiatives in Chemicals and Waste - Interviews/surveys with government representatives - Interviews with project managers from related projects
	B. Quality of Project Design			
Key question: How adequate was the project design to achieve the project Outputs, Outcomes and Objectives?				
	Relevance and logic of project Objectives, activities, Outputs and Outcomes according Project Quality Design template (see annexes C).	The Quality of Project Design is assessed using the template provided by the UNEP Office.	- Result of Overall Project Design Quality rating	- ProDoc, including the Project Review Committee review sheet - Interviews with IETC managers

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
	C. Nature of External Context			
Key question: To what extent does the project consider external factors which might have an effect on project implementation?				
	Aspects related to external operating context (considering the prevalence of conflict, natural disasters and political upheaval).	- Have the projects faced an unusually challenging operational environment that negatively affected project performance, such as: * Conflicts or security issues? * Government instability? * Risks of natural disasters?	- Number of Project delays / extensions, ProDoc / log frame revisions and budget revisions	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives
	D. Effectiveness			
Key question: To what extent did the projects achieve the expected Outcomes and Outputs?				
i.	Availability of Outputs	- Were Outputs and milestones delivered on time and as planned? If not, what were the reasons of delay/changes? - What is the quality of these Outputs? - To what extent do the Outputs contribute to their planned Outcomes? - How useful, relevant and appropriate did beneficiaries find the Outputs produced by the projects? - Which factors contributed to the achievement of Outputs (and/or what	- Concrete examples of Outputs being used by end users - Approved project extensions / budget revisions - Involvement of stakeholders in the production of Outputs	- ProDoc - Project progress reports - PIMS reports - Financial reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		were the reasons Outputs were not achieved)?		
ii.	Achievement of direct and project Outcomes	- What direct Outcomes (as per the combined reconstructed ToC) have been achieved? - Are these Outcomes a result of project intervention? - Would these have been achieved without the direct involvement of UNEP? Why?	- Number and quality of city and national waste management strategies - Number of downloads of GWMO and RWMOs - Number of requests for support to the GPWM Secretariat/IETC - Number and quality of training and curricula developed within the project	- ProDoc - Project progress reports - PIMS reports - Financial reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives
iii.	Likelihood of Impact	- What is the likelihood of expected positive impacts to be realized? - To what extent have any possible negative effects been identified in the project as risks or as part of the analysis of Environmental, Social and Economic Safeguards? - How successful have the projects been in playing a catalytic role and/or promoting the scaling up or replication of project results? - Are the projects likely to contribute to the long-lasting changes represented by the Sustainable	- Number of new sound waste management initiatives; - Pending / already approved new project proposal documents - Development of budget lines and additions to national waste management policies	- Likelihood of Impact Assessment - Reconstructed ToC at Design and at Evaluation - ProDoc - Project progress reports - PIMS reports - Financial reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff and UNEP sub-programme coordinator for Chemicals and Waste

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		Development Goals, and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s)?		- Interviews with staff of other project partners - Interviews/surveys with government representatives
E. Financial Management				
Key question: How conducive was the financial management for the achievement of project Outputs and Outcomes?				
i	Adherence to UNEP's financial policies and procedures	- Have the projects been implemented in compliance with UN financial management standards and procedures?	- Approval of contracting documents, project reports and financial reporting - Alignment of expenditures during project implementation with approved budget	- Project budget - Financial reports, audit reports - Interviews with IETC project managers - Interviews with UNEP Fund Management Officer - Interviews with project partners that received financial support (AIT, ISWA, IGES etc.)
ii	Completeness of financial information	- Was the projects' key financial information complete? - What was the actual expenditure across the life of the projects? - To what extent were the projects' expenditures in line with the corresponding approved budgets? - What changes, if any, have been made to the projects' budget and why?	- Approval of contracting documents, project reports and financial reporting - Alignment of expenditures during project implementation with approved budget	- Project budget - Financial reports, audit reports - Interviews with IETC project managers - Interviews with UNEP Fund Management Officer - Interviews with project partners that received financial support (AIT, ISWA, IGES etc.)
iii	Communication between financial and project management staff	- To what extent did the quality of communication between project management and financial management staff affect project	- Approval of contracting documents, project reports and financial reporting - Alignment of expenditures during project implementation with approved	- Project budget - Financial reports, audit reports - Interviews with IETC project managers - Interviews with UNEP Fund

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		efficiency?	budget	Management Officer - Interviews with project partners that received financial support (AIT, ISWA, IGES etc.)
	F. Efficiency			
Key question: To what extent and how were cost-effectiveness and timeliness considered during project implementation? How did these factors affect project performance?				
	Cost-effectiveness and timeliness of project execution	- Were any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe? - Did the projects make use of / build upon pre-existing institutions, agreements and partnerships (specifically also other regional partners and UN agencies), data sources, etc. to increase project efficiency? How? - What factors have caused delays (if any) and have affected project execution, costs and effectiveness? How? - Were events leading to completion of activities sequenced efficiently? - What was the role of the project's governance structure and management approach on its efficiency?	- Number of project extensions, budget adjustments, revisions - Number of measures to mitigate delays - Timeliness of report submission	- ProDoc - Project progress reports - Steering Committee meetings - PIMS reports - Financial reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives
	G. Monitoring and Reporting			

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
Key question: How were monitoring, evaluation and reporting used to support, adapt and improve project implementation?				
i.	Monitoring design and budgeting	- To what extent were the monitoring plans designed to track progress against SMART indicators? - To what extent were the allocated funds adequate for monitoring purposes, and for the mid-term and terminal evaluations?	- Quality of monitoring plan - Number and quality of monitoring documents - Existence and quality of mid-term review reports	- ProDoc - Mid-term review reports - Project budget - PIMS reports - Financial reports - Monitoring reports - Interviews with IETC project managers
ii.	Monitoring of project implementation	- To what extent were the monitoring plans operational? - To what extent did the monitoring system facilitate the timely tracking of results and progress towards project Objectives? - To what extent was the information, generated by the monitoring system, used to adapt and improve project execution, achievement of Outcomes and ensure sustainability? - To what extent were the allocated funds for monitoring actually used to support monitoring?	- Number and quality of monitoring documents - Existence and quality of mid-term review reports	- ProDoc - Mid-term review reports - Project budget - PIMS reports - Financial reports - Monitoring reports - Interviews with IETC project managers
iii.	Project reporting	- Have the 6-monthly status reports been uploaded regularly in the Project Information Management System (PIMS)? - To what extent have other UNEP and donor reporting requirements been fulfilled?	- Number and quality of reports delivered in line with reporting requirements - Number and quality of approved reports	- ProDoc - Mid-term review reports - Project budget - PIMS reports - Financial reports - Monitoring reports - Interviews with IETC project managers

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
	H. Sustainability			
Key question: How do socio-political, financial and institutional factors affect the probability of project Outcomes being maintained and developed after the projects end?				
i.	Socio-political sustainability	- What is the level of ownership, interest and commitment among governments and among other main stakeholders? - What is the likelihood that the project achievements will be taken forward at the national level, by the government (including allocation of budgets) and by the main stakeholders? - What is the likelihood that capacity development efforts continue? - Has increased capacity in the country been sustained until today?	- Number of follow-up waste management initiatives and planning by governments (including associated budgets) and by other stakeholders	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews/surveys with government representatives - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews with other stakeholders
ii.	Financial sustainability	- To what extent are project Outcomes dependent on future funding for the benefits they bring to be sustained? - Is there any government funding secured to fund future waste management activities? - What efforts are being made to secure funding for future complementary activities? - Have sustainable funding mechanisms been established to	- Number of follow-up initiatives - Amount of funding available	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews/surveys with government representatives - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		fund future sound waste management at the national levels?		- Interviews with other stakeholders
iii.	Institutional sustainability	- To what extent were institutional frameworks, policies, and legal and accountability frameworks in place and robust enough to support the sustainability of project Outcomes?	- Number and quality of policies and legal and accountability frameworks - Number of follow-up activities initiated by governments	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews/surveys with government representatives - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews with other stakeholders
	I. Factors and Processes Affecting Project Performance			
Key question: How and to what extent did certain factors – preparation and readiness, quality of project management and supervision, stakeholder participation and cooperation, responsiveness to human rights and gender, and environmental and social safeguards - affect project performance?				
i.	Preparation and Readiness	- Were appropriate measures taken to either address weaknesses in the project design or respond to changes that took place between project approval, securing of the funds and project mobilisation? Which measures? - What was the nature and quality of engagement with stakeholder groups by the project team during project preparation?	- Number and quality of appropriate measures taken (if necessary) - Quality of partner agreements	- ProDoc - Project budget - Minutes of GPWM Steering Committee during project preparation phase - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews/surveys with staff of other project partners

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		- What process was followed to assess the capacities of implementing partners and develop the partnership agreements? - Were initial staffing and financing arrangements sufficient to drive implementation?		
ii.	Quality of Project Management and Supervision	- Was project management by UNEP IETC pro-active and responding timely and adequality to any issues encountered within the project? - What was the nature of communication and collaboration with stakeholders? - What was the nature of communication and collaboration with UNEP staff and the IETC coordinating staff? - How were risks managed? Did this require use of problem-solving and/or project adaptation? How?	- Number of issues complicating sound project implementation solved timely (as opposed to unsolved issues) - (Amount of) evidence of adaptive management being applied	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives - Interviews/surveys with other stakeholders
iii.	Stakeholder Participation and Cooperation	- Were all important project stakeholders properly identified at project design and duly involved in project implementation? - What consultation and communication mechanisms were put in place to ensure an active stakeholder engagement and	- Number of stakeholders identified and actively involved in project implementation - Number of stakeholders satisfied with the stakeholder participation	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		ownership? Were these effective? - What was the level of support provided to maximise collaboration and coherence between stakeholders? - What measures were taken to ensure inclusion and participation of all differentiated groups, including gender groups?		- Interviews with staff of other project partners - Interviews/surveys with government representatives - Interviews/surveys with other stakeholders
iv.	Responsiveness to Human Rights and Gender Equity	- To what extent did the project intervention adhere to UNEPs policy and strategy for gender and human rights? - To what extent did project implementation and monitoring take into consideration: * Possible inequalities (especially gender-related) * Specific vulnerabilities of disadvantaged groups (especially women, youth, children) to environmental degradation or disasters; * The role of disadvantaged groups (especially gender-related) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.	- Number of gender and human rights stakeholders identified and actively involved in project implementation - Number of stakeholders satisfied with the stakeholder participation realized - Evidence that sensitivity in gender has been observed in Project design, implementation and monitoring and evaluation activities, including gender distribution in participation in project activities and events	- UN policies and strategies on gender and human rights: * UN Common Understanding on the Human Rights Based Approach (HRBA) * UN Declaration on the Rights of Indigenous People * UNEP's Policy and Strategy for Gender Equality and the Environment - ProDoc - Project progress reports - Steering Committee meeting minutes and/or Workshop reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
v	Environmental and Social Safeguards	- To what extent were UNEP's requirements, with respect to environmental and social safeguards, met (through the process of environmental and social screening at project approval stage, risk assessment and management) of potential environmental and social risks and impacts associated with project and programme activities? - To what extent were the following activities carried out: * Review of risk ratings on a regular basis; * Monitoring of project implementation for possible safeguard issues; * Providing responses to safeguard issues. * - To what extent did the project management minimise UNEP's environmental footprint? What measures, if any, where taken?	- Frequency of review of risk ratings - Number of monitoring reports that include monitoring of safeguard issues - Evidence of adequate responses to safeguard issues	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Interviews/surveys with government representatives - Interviews/surveys with other stakeholders
vi.	Country Ownership and Driven-ness	- To what extent was the government / public sector qualitatively involved with the project? (in respect to the need to embed the Outputs and Outcomes of project work in their respective institutions) - How did this contribute to embed	- Number of project Outputs and Outcomes entrenched in government / public sector institutions - Degree to which project results have been adopted and championed nationally - Degree to which countries have	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews/surveys with government representatives

No	Evaluation Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		changes in their respective institutions and offices? - To what extent do these representatives/agencies consider the needs or interest of all gendered and marginalised groups?	willingly resourced the project and its Outcomes and indicated on-going budgetary funding and capacity for sound waste management	- Interviews/surveys with other stakeholders (including private sector) - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners
vi.	Communication and Public Awareness	- How were learning and experience sharing communicated between project partners and interested groups? - Which public awareness activities were undertaken during project implementation? - To what extent did they influence attitudes or shape behaviour among wider communities and civil society at large? How? - To what extent were existing communication channels and networks used effectively, including meeting the differentiated needs of gendered or marginalized groups?	- Operative communication platforms - Discussion boards - Degree on awareness of stakeholders on sound management of waste	- ProDoc - Project progress reports - PIMS reports - Final report of the implementation of the three projects - Interviews/surveys with government representatives - Interviews/surveys with other stakeholders (including private sector) - Interviews with IETC project managers - Interviews with AIT, IGES, ISWA staff - Interviews with Regional Offices staff - Interviews with staff of other project partners - Awareness raising materials developed within the project

ANNEX II. KEY DOCUMENTS CONSULTED

Project planning and reporting documents

1. Terms of Reference for the Terminal Evaluation of the Terminal Evaluation of the UNEP/Global Environment Facility project: "Terminal Evaluation of three UNEP projects, implemented by the International Environmental Technology Centre (IETC) Unit: 531.2 Secretariat Support to the Global Partnership on Waste Management, 531.1 Global Waste Management Outlook; 534.1 Delivering Integrated Waste Solutions at the National and Local Level"
2. ProDoc "Global Waste Management Outlook (531.1)
3. ProDoc "Secretariat Support to the Global Partnership on Waste Management (531.2)"
4. ProDoc "Delivering integrated waste solutions at the national and local level (534.1)"
5. ProDoc "Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support (521.1)"
6. PIMS reports of all three projects
7. Operational Completion Reports for all 3 projects
8. Budget revisions for all 3 projects
9. PRC (Project Review Committee) documents of all 3 projects
10. Steering Committee Meeting reports for all 3 projects
11. Small-scale Funding Agreements with GEC, Zoï Environment Network, CSIR, NEPA Jamaica, Kenya Industrial Research and Development Institute, Asia Foundation, BCRC-SEA, ICLEI, ICSD, Lead Nepal, World Wildlife Fund Bhutan, IEE, GRID-Arendal
12. Project Cooperation Agreements with IGES, AIT
13. UNEP MTS 2010-2013, 2014-2017
14. UNEP PoW 2014-2015
15. UNEA Decision 27/12, 16/34
16. XIX Meeting of Forum of Ministers of Environment of LAC, March 2014
17. UNEP Gender Equality and the Environment – Policy and Strategy
18. CCET ToRs
19. GPWM Framework Document
20. All UNEP evaluation documents and templates

Project 531.1: Global Waste Management Outlook

21. Global Waste Management Outlook, 2015 (UNEP IETC)
22. Africa Waste Management Outlook, 2018 (UNEP IETC, CSIR)
23. Africa Waste Management Outlook, Summary for Decision-makers (UNEP IETC)
24. Asia Waste Management Outlook, 2017 (UNEP IETC, AIT, ISWA)
25. Central Asia Waste Management Outlook, 2017 (UNEP IETC, Zoï Environment Network, ISWA, MKUR MFSA (ICSD))

26. Waste Management Outlook for Latin America and the Caribbean, 2018 (UNEP IETC)
27. Waste Management Outlook for Latin America and the Caribbean, Summary for Policy-Makers, 2018 (UNEP IETC)
28. Small Island Developing States Waste Management Outlook, 2019 (UNEP IETC)
29. Waste Management Outlook for Mountain Regions, Sources and Solutions, 2016 (UNEP IETC)
30. Waste Management Outlook for West Asia, 2019 (UNEP IETC, ISWA, CEDARE)

Project 531.2: Secretariat Support to the Global Partnership on Waste Management

31. Regional study on mercury waste management in the ASEAN countries 2016 (Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)
32. Assessment on Key National Stakeholders and their Roles in Mercury Management and Institutional Interest and Capacities, 2016 (Ministry of Environment of the Kingdom of Cambodia, UNEP and GEF)
33. National Assessment Report on Mercury in Cambodia, April 2016) (prepared by: Department of Hazardous Substance Management, General Directorate of Environmental Protection, Ministry of Environment Cambodia)
34. Global Mercury Waste Assessment, 2017 (IETC)
35. GPWM Focal Area Business Plan: E-waste management
36. GPWM Focal Area Business Plan: Hazardous Waste Management
37. GPWM Focal Area Business Plan: Metal Recycling
38. Report of Analysis of the Regulatory Framework, Identification of Gaps and Assessment of the Regulatory Reforms for the Ratification and Early Implementation of the Minamata Convention (draft assessment report)
39. Waste Management Initiatives at Global and Regional Level Second Assessment Report, prepared for Global Partnership on Waste Management, 2016 (UNEP IETC and Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)
40. Needs Assessment Study on Capacity Building on Waste Management Second Edition, prepared for Global Partnership on Waste Management, (UNEP IETC and Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)
41. Major International Waste Management Programmes and Projects Second Assessment Report, prepared for Global Partnership on Waste Management, 2016 (UNEP IETC and Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)
42. Financing on Development and Technology Transfer: A Review Focused on Waste Management Related Needs and Corresponding Supply by International Organizations, 2016 (UNEP IETC and Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)

Project 534.1: Delivering integrated waste solutions at the national and local level

43. Study on e-waste management in ASEAN countries, 2016 (UNEP IETC, Basel Convention Regional Centre for South-East Asia)
44. Waste Management in ASEAN Countries, 2016 (UNEP IETC and Asian Institute of Technology Regional Resource Centre for Asia and the Pacific)
45. Baseline Report: Current Waste Management System in Mongolia, final draft, 2015 (AIT RRC.AP)
46. City Waste Management Improvement Strategy and Action Plan (2017-2030) Ulaanbaatar, Mongolia (final draft) (Ulaanbaatar City Municipality, UNEP IETC, AIT RRC.AP)
47. Mongolia National Waste Management Improvement Strategy and Action Plan (2017-2030), July 2017 (UNEP, AIT, Ministry of Environment and Tourism (MET) Mongolia)
48. Participatory waste management approach for climate change mitigation; the case of Battambang city, 2018 (IGES, UNEP)
49. Phnom Penh waste management strategy and action plan 2018-2035, 2018 (published by Phnom Penh Capital Administration, Kingdom of Cambodia)
50. State of Waste Management in Phnom Penh, Cambodia, 2018 (IGES, UNEP)
51. Guidelines for Integrated Waste Management Framework Legislation (DRAFT guidelines on framework legislation to implement integrated waste management policies leading to a circular economy), 2015 (Dr Jeff Seadon)
52. Waste Management Strategy and Action Plan for Mandalay City (2017-2030), 2017 (published by Mandalay City Development Committee (MCDC) and the Environmental Conservation Department (ECD), Ministry of Natural Resources and Environmental Conservation (MONREC), the Republic of the Union of Myanmar)
53. National Waste Management Strategy 2019 for Bhutan, 2 June 2019 (prepared by the National Environmental Commission (of Bhutan), IETC, UNEP, World Wildlife Fund Bhutan, supported by IKI and the Federal Ministry for Environment (Germany))
54. Thimphu Waste Management Plan, 7 March 2019 (prepared by the National Environmental Commission (of Bhutan) and World Wildlife Fund Bhutan)
55. Report Disaster Waste Management Policy, Strategy & Action Plan Nepal, 2015 (UNEP, LEAD)
56. A Regional Waste Management and Action Plan for Zone 6 in Maldives, January 2019 (prepared by the Ministry of Environment (Waste Management and Pollution Control Department, IGES, IETC)
57. City Baseline Assessment on Integrated Solid Waste Management Hanoi City, 2016 (Centre for Environmental Management Studies (CEMAS)
58. Country Baseline Assessment on Integrated Waste Management Vietnam, 2016 (Centre for Environmental Management Studies (CEMAS)
59. Estrategia Municipal de Gestión Integral de Residuos Sólidos Municipio de Omoa, Cortes, April 2017 (UNEP, Secretaria de Energia, Recursos Naturales, Ambiente y Minas, Centro Nacional de Producción Mas Limpia de Honduras)
60. Программа по устойчивому управлению отходами и вторичными ресурсами (National Plan Kyrgyzstan)

61. National Waste Management Strategy of The Republic of Tajikistan for 2017-2026, draft
62. Penang Organic Waste Management Plan and Policy – Final Report, November 2016 (prepared by Khor Hung Teik)
63. Saint Lucia National Waste Management Strategy, November 2017 (prepared by Economic Environmental Solutions International)
64. Status Report: Holistic Waste Management Plan for Kota, 2015 (ICLEI South Asia)
65. Holistic Waste Management Strategy for Varanasi City, November 2018 (prepared by IETC, ICLEI, from Varanasi: The City Sanitation Unit, Solid Waste Management Department, and Dr. Nitin Bansal (IAS, Municipal Commissioner)

Evaluation documents:

66. Results based evaluation of the impacts of guidelines and other IETC's activities on waste management policies and practices
67. Terminal Review Report of Project 532.1
68. Gender and Waste Nexus – Experiences from Bhutan, Mongolia, Nepal, 2019 (IETC, GRID-Arendal)
69. Final Report on the Implementation of IETC's projects – 534.1, 531.1, 531.2
70. IETC Annual Report 2018
71. Waste and Climate Change Project - The Achievements (draft) (IETC, World Wildlife Fund, the Asia Foundation, Leadership for Environment and Development)

Other Reference documents:

72. What a Waste – A Global Review of Solid Waste Management, 2012 (World Bank)
73. History and Current State of Waste Management in Japan, 2014 (Ministry of Environment)
74. Solid Waste Management and Recycling Technology of Japan, 2012 (Ministry of Environment)
75. ASEAN Joint Declaration on Hazardous Chemicals and Wastes Management, 2017 (ASEAN Ministers)

Websites:

- https://www.unenvironment.org/ietc/
- https://www.env.go.jp/en/policy/plan/intro.html
- https://www.iswa.org/iswa/organisation/about-iswa/
- http://knowwaste.net
- https://www.ccet.jp/
- www.mercurywaste.org
- https://environment.asean.org/awgcw/
- https://asean.org/storage/2017/11/Annex-2_Joint-Declaration-HCWM-Adopted-by-AMME.pdf

- http://view.ceros.com/moneyweb/the-investor-may-2017/p/11
- http://www.dailyo.in/variety/waste-management-digital-india-swachh-bharat/story/1/15809.html
- http://www.pops.int/
- http://www.pic.int/
- http://www.basel.int/
- http://www.mercuryconvention.org/

ANNEX III. PEOPLE CONSULTED DURING THE EVALUATION

Organisation / Location	Name	Position	Gender
AIT, Thailand	Guilberto Borongan	Head of Waste Management Cluster	Male
AIT, Thailand	Chettiyappan Visvanathan	Professor	Male
The Asia Foundation	Mark Koenig	Country Representative	Male
The Asia Foundation	Ariunaa Norovsambuu	Senior Coordinator	Female
Auckland University of Technology	Jeff Seadon	Programme Director Postgraduate Programmes	Male
CSIR, South Africa	Linda Godfrey	Professor, Principal Researcher	Female
Environmental Management Centre LLP, India	Prasad Modak	Executive President	Male
GEC, Osaka	Akiko Doi	Deputy Director for the International Cooperation Division	Female
GEC, Osaka	Takuya Kitatsuji	Executive Director	Male
GRID-Arendal	Ieva Rucevska	Project Manager	Female
IGES, Japan	Kazunobu Onogawa	CCET Director	Male
Imperial College, London	David Wilson	Visiting Professor, Independent Consultant	Male
ISWA, Netherlands	Antonis Mavropoulos	President	Male
ISWA, Netherlands	Aditi Ramola	Technical Director	Female
Pauls Environment, UK	Paul Dumble	Owner, Waste Specialist	Male
Saint Lucia National Solid Waste Management Authority	Justin Roosevelt Sealy	General Manager	Male
Sunway University, Malaysia	Prof Agamuthu Pariatamby	Professor	Male
UNEP, IETC	Keith Alverson	Director	Male
UNEP, IETC (former project officer IETC, now UNEP)	Ainhoa Carpintero Rogero	Associate Programme Officer	Female
UNEP, IETC	Raphaelle Delmas	Environmental Affairs Intern	Female
UNEP, IETC (now UNEP)	Claudia Giacovelli	Programme Officer	Female

Organisation / Location	Name	Position	Gender
UNEP, IETC	Shunichi Honda	Programme Officer	Male
UNEP, IETC (now UNEP RO Asia and Pacific, Bangkok)	Mushtaq Memon	Regional Coordinator for Resource Efficiency	Male
UNEP, IETC (former project manager IETC, now UNEP RO West Asia)	Iyngararasan Mylvakanam	Programme Officer	Male
UNEP, IETC	Michiko Ota	Budget Assistant	Female
UNEP, IETC (former project manager IETC, now UNEP, HQ)	Mahesh Pradhan	Programme Management Officer Former project manager IETC	Male
UNEP	Monika MacDevette	Chief, Chemicals and Health Brach	Female
UNEP, IETC	Daniel Ternald	Associate Expert	Male
UNEP, RO Central Asia (now FAO)	Natalia Alekseeva	Head of Central Asia Office, Now Team leader, FAO	Female
UNEP	Fuaad Alkizim	Fund management Officer	Male
UNEP, RO Central Asia	Olzhas Atymtaev	National Program Officer	Male
UNEP, RO Africa, Nairobi	Abdouraman Bary	Regional Coordinator for Chemicals, Waste and Air Quality	Male
UNEP, RO West Asia	Abdul-Majeid Haddad	Deputy Regional Director	Male
UNEP	Kevin Helps	Senior Programme Management Officer, Chemicals and Waste Branch	Male
UNEP, Geneva	Mijke Hertoghs	Regional Coordinator UNEP, Head, Environment and Emergency Telecommunications	Female
UNEP	Tessa Goverse	Coordinator of Sub-Programme on Chemicals, Waste & Air Quality	Female

Organisation / Location	Name	Position	Gender
UNEP, RO Asia and Pacific, Bangkok	Kakuko Nagatani-Yoshida	Regional Coordinator for Chemicals, Waste and Air Quality	Female
UNEP, RO LAC, Panama	Jordi Pon	Regional Sub-Programme Coordinator for Chemicals and Waste	Male
Zoï Environment, Switzerland	Otto Simonett	Director	Male
Zoï Environment, Switzerland	Viktor Novikov	Project development and management, Central Asia	Male

ANNEX IV. QUESTIONNAIRES

Questionnaire for Authors/Co-Authors of the Global and/or Regional Waste Management Outlooks

According to the Global/Regional Waste Management Outlook (GWMO and RWMO), you were one of the authors. We would greatly appreciate your input on the below questions. As this is an independent evaluation exercise, please note that your feedback and views will not be shared and will be treated as confidential by the Evaluation Team.

Background Information

- Your name:
- Name of Waste Management Outlook you co-authored:
- Period of involvement with the WMO process (initial month, year – end month, year):
- UNEP staff involved (your focal points):

Questions

1. What process was followed to develop the GWMO/RWMO you were involved with? In your opinion, did this process function well?

2. Were participating countries involved in the preparation of the GWMO/RWMO? Which countries were involved, and how (what was their role or contribution)? Please provide examples.

3. Do you consider that the received/compiled data was adequate for the development of the WMO? Were there any important gaps in the received/compiled data? Please mention your recommendations for improvement/changes.

4. What were the main challenges (in terms of time, finances, implementation, internal/external context, availability of necessary key experts, etc.)? What measures were taken to cope with the challenges/adapt according to the challenges?

5. What aspects/results of the project (GWMO/RWMO) are you most proud of? Please provide example(s).

6. Are you aware of any unexpected results/effects (positive or negative) of the GWMO/RWMO? Please provide example(s).

7. Did the project consider aspects on gender, vulnerable groups and human rights, and how? Do you have any suggestions or recommendations to address these issues in future Waste Management Outlooks?

8. What support and guidance did the International Environmental Technology Centre (IETC) and/or UNEP Regional Office (RO) provide, and how?

9. What support and guidance did project partners (AIT, IGES, ISWA, etc.) provide, and how?

10. What would you consider as the important lessons learned for any follow-up project on WMOs?

11. Do you have any other feedback / comments, which you consider relevant and would like to share with us, in the context of the WMOs, project management, UNEP, IETC and/or other implementing partners?

Questionnaire on development of waste management strategies.
Project 534.1 'Delivering Integrated Waste Solutions at the National and Local Level' implemented by the International Environmental Technical Centre (IETC) of UNEP

We would greatly appreciate your feedback and input on the below questions. Please note that your feedback and views will not be shared and will be treated as confidential by the Evaluation Team.

Background information

- Your name:
- Name of waste management strategy you were involved with (country and/or city):
- Period of involvement (duration and year):
- Project Partner (UNEP staff or partner institution that supported the project):

Questions

1. Please explain how you became involved in the development of this strategy, and what was your role in the project?

2. What process was followed to develop the waste management strategy(ies) in your country/ city?

3. Which stakeholders were involved in the process? Please list them below.

4. Were any of the below type of stakeholders involved in the development of the waste strategies? Please complete the below table.

Type of partner involved	**Yes or No**	**Who / Which group?**	**How were they involved? Their role in the process**
Civil Society Organization			
Academia and universities			
Minority groups (i.e. indigenous people, women, youth)			
Other (please specify)			

5. Are you aware of the Global Waste Management Outlook (GWMO) and did you use the GWMO and/or any relevant Regional Waste Management Outlook (RWMO) when developing the waste management strategy? If so, could you explain if and how the GWMO or RWMO was useful for your work?

6. What, according to you, were the main results related to the development and implementation of the strategy? What are you most proud of? Please provide examples.

7. What were the main challenges faced (in terms of time, finances, implementation, internal/external context, etc.)? What measures were taken to cope with the challenges / adapt according to the challenges?

8. Are there, according to you, any benefits (impacts) of the project that can still be seen today? If so, could you please describe them and provide examples.

9. Was the strategy officially approved by government and when? If not approved, please clarify if there are any plans for its approval.

10. Have any concrete waste management pilots been implemented in your country/ city? If yes, which interventions have taken place? If not, which factors, in your opinion, are hindering the implementation of (parts of) the strategy?

11. Have the city waste management strategies been upscaled to and replicated in other parts of the country (or is this planned)? If yes, where and how are they being used today? If not, what, in your view, is hindering the country from upscaling?

12. Are you aware of any financial contributions (in cash or in kind) provided on national or city level to the development of the waste management strategy that you were involved in? If so, who provided these contributions (if possible, please provide an estimation of amounts)?

13. Have any funding mechanisms been established to continue implementation of the waste management strategy? If yes, what are these funding mechanisms? If not, what, in your opinion, were the hindering factors?

14. Do you consider that the country is now better able to manage waste in an environmentally sound manner? If yes, why and in how far did the project contribute? If not, why not?

15. What would be the follow-up needs or support that have not been dealt with (fully) in this project and that would enable the country to effectively implement waste management strategies?

16. What support and guidance did project partners (IETC, UN Regional Offices, AIT, IGES, ISWA, etc.) provide, and how?

17. What would you consider as the important lessons learned for any follow-up project?

18. Any other feedback / comments or suggestions you would like to share with us?

Thank you very much for your participation in this exercise!

Questionnaire on development of university curricula on waste management.
Project 534.1 'Delivering Integrated Waste Solutions at the National and Local Level' implemented by the International Environmental Technical Centre (IETC) of UNEP

We would greatly appreciate your feedback and input on the below questions. Please note that your feedback and views will not be shared and will be treated as confidential by the Evaluation Team.

Background information

- Your name and position:
- Name of university:
- Period of involvement (duration and years):
- Project Partner (UNEP staff or partner institution that supported the project):

Questions

1. Please explain how you became involved in the development of the university curriculum, and what was your role in the project.

2. What process was followed to develop the curriculum? Could you briefly explain how it was decided which modules needed to be included into the curriculum and how these modules were developed?

3. Could you explain how the different universities cooperated and how this cooperation was managed by IETC, AIT and/or the UNEP Regional Offices involved?

4. How would you rate the utility of the support provided by IETC, AIT and the Regional Offices (extremely useful, very useful, somewhat useful, not so useful, not at all useful) and why?

5. Which other stakeholders - besides IETC/AIT/UNEP and universities - were involved in the process? Please list them below and briefly explain their involvement.

6. Did you use the Global Waste Management Outlook (GWMO) and/or any relevant Regional Waste Management Outlook (RWMO) to develop the university curriculum? If so, could you explain if and how the GWMO or RWMO were useful for your work?

7. Why do you consider this curriculum to be relevant and what are, according to you, the key differences with other curricula on waste management?

8. Has the curriculum (or modules from the curriculum) been taught at your university? Is it still being taught today? Do you know how many students approximately have been following this curriculum/the modules?

9. Has the curriculum been internalized / officially approved in your university as part of a master/bachelor programme? If yes, since when? How many students have been following this master/bachelor programme?

10. If the curriculum has not yet been internalized/ officially approved in your university, could you please explain why not and what is missing for this to take place.

11. What, according to you, were the main results related to the development and delivery of the university curriculum? What are you most proud of? Please provide examples.

12. What were the main challenges faced? What measures were taken to cope with the challenges / adapt according to the challenges?

13. Did the curriculum on waste management consider aspects on gender, vulnerable groups and human rights, and how? Do you have any suggestions or recommendations to address these issues in further updates of the curriculum?

14. Is the university consortium still operational today? If so, what activities is the consortium implementing and what plans does the consortium have for the near future? For instance, are there any plans for expanding the consortium with other universities and institutes?

15. Is there any follow-up support needed, that has not been covered (fully) in this project, that would enable your university and the consortium to further develop and offer the university curriculum on waste management?

16. What would you consider as the most important lessons learned from this process?

17. Any other feedback / comments or suggestions you would like to share with us?

Thank you very much for your participation in this exercise!

ANNEX V. RESPONSES TO QUESTIONNAIRES

GWMO/RWMO (project 531.1)

Information provided by the questionnaire respondents is as follows:

1. Almost all the respondents considered that the process for the development of the WMOs had functioned well, with some respondents describing it as being open and participatory. Many respondents and interviewees appreciated the coordination work provided by the lead authors.

2. In most of the WMOs, the countries covered by the respective WMO participated in some way in the preparation of the report. In some cases, for the section on Law and Governance, the authors extracted the required data from the legislative instruments already available on the government websites. In the case of the RWMO for the LAC region, a questionnaire was sent to the responsible government agencies, which then provided the required information. Some countries were also part of the respective Steering Committee. In one case, inputs were compiled through consultation during a workshop. Some government representatives participated in the initial workshop and/or were involved as reviewers. In some cases, where the government representatives were not directly involved in the preparation of the Outlook, the results were presented to them to capture their feedback on the Outlook.

3. The GWMO provided the initial structure for the RWMOs based on which they were produced and adapted according to the regional needs. Authors perceived the structure of the RWMO in different ways; some of the RWMO authors mentioned to the evaluation team that the structure of the RWMO was flexible and it was up to them to decide the content. At the same time, others remarked that the outline of the RWMO (of a different region) was fixed and not much flexibility was given to adapt it.

4. Respondents also raised several issues with respect to the WMOs development process, the main ones include:
    - Need for more resources for dissemination of the WMOs, for example, for printed copies;
    - Heavy work burden on the lead author;
    - Need for further workshops during preparation, as solely the initial one, in some cases, was not considered to be adequate;
    - Non-timely issuance of contracts;
    - Limited duration of the contracts of the authors;
    - Non-proportional remuneration versus magnitude of work of the authors;
    - Need for timely terminal evaluation;
    - Additional coordination/time for alignment was needed due to change of the director at IETC;

- Need for a country focal point in each country (mentioned by one person).

5. Despite facing challenges in receiving and/or compiling the necessary data, the data was considered by most of the respondents to be appropriate and adequate for inclusion in the Outlooks, although the following issues were pointed out (sometimes by one person and sometimes by more persons):
    - lack of accurate, reliable, updated and harmonized data and databases on waste (management) within and across regions, including by types of waste;
    - lack of willingness of data owner to share data (for example municipalities and industries);
    - in some cases, discrepancy between data provided and other publications;
    - lack of homogenization of the definition of waste and the different types of waste;
    - lack of a standard unit of measurement for each criterion mentioned in the WMOs, to enable comparisons;
    - lack of financial information related to waste management;
    - lack of capacity and resources in countries to collect waste-related data and conduct research/analyses on waste;
    - need for a waste monitoring system;
    - need to raise awareness about circular economy.

    To include reliable data in the WMOs, the authors sometimes relied on secondary research/published literature, technical/scientific papers, theses, and other press articles. The recommendations in some Outlooks included the suggestion to work on the existing gaps at a later stage.

6. The interviewed stakeholders as well as questionnaire respondents consider the Outlooks to be comprehensive high-quality and useful reference documents on waste issues; the Outlooks have been reported to be appreciated by the regional communities and several other stakeholders. They are considered to be contributing to "improving the generic understanding of waste problems, shedding light on vulnerable groups, in hazardous labour, …" [respondent to the questionnaire], changing the mindset towards waste as a valuable resource, and towards the circular economy. The case studies have also been appreciated by interviewed stakeholders and respondents, to illustrate, inter alia, best practices from some countries, provide detailed information on waste in some countries and highlight waste issues and challenges in a country. Authors/contributors receive requests for presentation of the respective WMO and according to the respondents, the reports have been downloaded from different sites, for example ResearchGate, UNEP and IETC. One respondent mentioned that the RWMO was being used as training material. Some issues mentioned, by one person or by more persons (but not the majority of respondents) are as follows:
    - Need for updates of RWMOs, at regular time intervals, for example, every 5 or 7 years;
    - Need for policy/technical briefs in between;
    - Need for separate budget for media and outreach campaigns.

7. The team of authors/co-authors/contributors/coordinators consisted of persons from both genders. No separate chapter on gender and/or vulnerable groups was included in the WMOs; nevertheless, these aspects are covered throughout the WMOs in different sections, including the case studies. The role of waste pickers and the informal sector in waste management has also been considered. The personal experience gained while working on the WMOs has also been appreciated. A few points mentioned by some respondents/interviewees are as follows:
    - To include more gender-related factsheets and case studies (around 15% of the respondents/interviewees);
    - Need for capacity building and empowerment (around 10% of respondents/interviewees).

8. Consulted stakeholders also reported being satisfied with the teamwork amongst the several authors/contributors, and also with the support provided by IETC. Reportedly, IETC and/or the respective UNEP RO provided different kinds of support for the preparation of the WMOs, including continuous support in the form of guidance, inputs and feedback for the overall report and case studies, reviewing of the Outlooks, providing other reference reports, giving logistical support for the contracts and workshops, and acting as liaison between the different authors in different countries.

9. The support provided by project partners was also rated as valuable by consulted stakeholders. Partners such as AIT, IGES, ISWA and Zoï Environment Network supported the data collection, the drafting and review of the reports, provided feedback and advice and provided coordination support.

University Curricula (project 534.1)

The main inputs provided through questionnaires are as follows:

1. All the respondents and interviewees considered the development of the curriculum very relevant and important for their universities and regions. The successful development of the curricula was mentioned as the main result. Many respondents stated that it was the first curriculum on holistic or integrated waste management for their region, approaching the issues from different angles and including important elements related to regional context. Some of the results mentioned were:
    - Some respondents stated that it was important that governance was included in the curriculum;
    - The curricula were not looking at air pollution, water pollution and solid waste issues in isolation;
    - The curricula approached waste management in a holistic way, so looking at technical, social, and economic aspects;
    - Several times, respondents mentioned that it was a unique and important opportunity to have the regional context considered when developing the curriculum (e.g. for Africa it was mentioned that open burning and e-waste were important topics that were included);

- Some respondents remarked that it was important that informal sector and gender aspects were integrated into the waste issues;
- The curriculum provided a possibility for enhancing capacities through offering the curriculum within a Master programme, training or (postgraduate) courses;

2. Almost all the respondents highly valued the support and inputs provided by IETC, AIT, and the UNEP Regional Offices in Nairobi and Panama. It was mentioned that IETC, especially at the start of the work of the consortia, provided organizational, logistical, and often also technical support (e.g. by making available guidelines) and also provided feedback on the work undertaken by the consortia. The project partner organizations also received high praise for their financial, organizational, and technical support provided, and for their inputs and feedback. Also, ISWA was mentioned several times for having provided valuable inputs to the curricula.

3. Only two respondents mentioned that the curriculum has been internalized within their university and made an official part of their Master programme (one in the Asia Pacific and one in the LAC region). Most universities did use – and still use - the curriculum modules in short (postgraduate) courses and training workshops. The main reason for the fact that courses were not internalized thus far are the long and formal process it takes to have the curriculum officially approved (by e.g. the Ministry of Education). Other reasons that were mentioned are lack of budget, lack of professors to teach the curriculum and the limited number of potential students.

4. The consortia in the Asia Pacific and African regions are not functioning as a consortium anymore, although several universities are still in contact. The consortium in the LAC region is still very active and was formalised as the *University Consortium for the Sustainable Management of Solid Waste in Latin America and the Caribbean*. They have a workplan in place for 2021-2022 and have plans to extend the consortium. The main reasons voiced for the other consortia not to be (very) active anymore are lack of funds and time.

5. The respondents provided some recommendations to extend the consortia or to further their goals. Many respondents replied that more funding is needed to be able to extend the curriculum to other universities. Other recommendations included the need for funding of scholarships (e.g. similar to an Erasmus programme where students can visit and study at different universities) and for publishing of books. Other suggestions included the development of more case studies, more exchange with the consortia in other regions, uptake of the development of online courses, and update of the curriculum regarding emerging waste streams.

6. Ten respondents remarked that the issues of gender, vulnerable groups and human rights were considered in the curricula. Three persons remarked that as the curriculum was orientated towards fulfilling the Sustainable Development Goals, all these issues were considered in it. Others provide specific examples,

e.g. the inclusion into the curricula of issues related to child labour, women working in e-waste, and persons working in the informal sector. Out of the ten questionnaires that mention that gender and vulnerable rights are considered, three write about the process of developing and teaching the curriculum, whereas the other seven refer to these issues having been considered within the modules of the curricula themselves. Several respondents wrote that it is necessary to keep bringing the issue of gender and vulnerable groups forward (as they do have a role in waste management, e.g. in informal waste management) and to enhance the focus on these issues in the future.
Three persons wrote that aspects related to gender and vulnerable groups have not been considered according to their knowledge, or not very well.

7. The participants of the questionnaire observed several challenges. For the Asia Pacific curriculum, it was mentioned that it was difficult to start because it was a whole new idea and there were few reference materials. Also, several respondents commented that it has been difficult to launch the curriculum within a Master programme or to extend the curriculum due to lack of funding. Some mentioned the challenge to agree on how to incorporate the different characteristics of the countries in the region into one single curriculum, and on how to define a good programme prepared by experts with different specializations from different universities. Also, some respondents wrote that it was difficult to have enough face-to-face meetings due to lack of travel funds. Two persons said it was difficult to connect problem to reality and therefore it was necessary to evaluate real cases and include more case studies in the curricula. One person mentioned late transfer of funds. Also, for the LAC region, it was mentioned by two persons that the language barrier was a challenge, as the consortium worked with two languages (Spanish and English). The solution would be to have all materials also available in English.

Development of waste management strategies (project 534.1)

The following general conclusions can be formulated based on the questionnaires received:

1. In all cases a final waste management strategy was prepared.

2. Most persons very much appreciated the (level of) support provided to them by IETC, ISWA, UNEP ROs and other project partners in developing the waste strategies and learned new things that could strengthen waste management in their country/city.

3. In most cases the GWMO and also the RWMOs were used as reference documents when developing the waste strategies (although there were also a few cases where the respondents were not aware of the existence of the Outlooks).

4. In many cases the national strategies (and sometimes the city strategies) needed official approval by the government and often this was a long process. Here

especially political factors hampered the approval of the documents. Frequent changes in government, elections, changes in priorities and the COVID-19 lockdown have been mentioned as factors delaying the approval of strategies. Many strategies have not been officially approved or only very recently. In total 9 strategies have been officially approved, 11 strategies were not (yet) adopted and for 6 strategies it is unclear.

5. Only in some cases active follow-up has taken place, for instance through implementation of the strategy and setting up of pilot projects. 8 respondents replied that small pilot projects have been implemented (covering 5 city and 3 national strategies). A few respondents mentioned that pilot projects related to waste management were implemented, however these could not always be attributed to the project. In most cases, a need for follow-up and further support (by IETC, UNEP ROs and partner other organizations) was expressed, as well as the need for (better) financial mechanisms to fund the implementation of the strategies.

6. Some other results that were mentioned are:
    - The strategies were prepared by including multi-sectoral stakeholders and identifying the role and responsibilities of each stakeholder in waste management of the country;
    - For many countries, this was the first integrated waste management strategy in the country. Priority directions related to waste management were identified and agreed upon. The strategies included vision, guiding principles, long-term goals, and key activities for addressing waste management;
    - Three respondents specifically mentioned the development or improvement of the legal framework as an important result;
    - Respondents remarked that the cooperation with all stakeholders was at times difficult but also highlighted and valued the participatory and multi-stakeholder process followed for the development of the strategies. The strategies were developed through successful collaboration and cooperation between all the relevant ministries, national and local governments, private sector actors, local and international NGOs, and other stakeholders;
    - Two respondents specifically mentioned that the strategy connects to national policies, strategies and development plans as well as contributes to achievement of the country's commitments under the SDGs;
    - The fact that a strategy was prepared (even when not yet implemented) contributed to a change in the mind set of people in the country related to waste and increased the knowledge and awareness of the stakeholders on how to deal with waste. It also contributed to concrete changes, for example changes in establishing better accountability of waste collection services, or improvements in recycling services.

7. It was mentioned four times that the strategy helped to improve or develop the baseline situation and waste statistics through inventories and meetings at the start of the project.

8. Some of the main challenges noted by the respondents were as follows:
    - As no pilot projects were implemented, it was sometimes difficult to keep the motivation of the local population. It is important to show concrete results;
    - The changes in staff in government were a challenge noted repeatedly;
    - Respondents also several times mentioned the lack of an adequate budget and time to develop the strategies;
    - Lack of adequate data and statistics;
    - Several respondents described the process to develop a policy and legislation as a difficult process;
    - A few respondents noted the limited public acceptance of the need to include a payment system for waste management services;
    - There was a lack of trained personnel in the field of waste management in several countries;
    - It was sometimes difficult to take enough time for adequate discussions and meetings between waste management officials and other stakeholders.

9. From the 21 questionnaires received, 11 reported the involvement of minority groups (i.e. indigenous people, women, youth) in the development of strategies (52% of respondents, representing xxx countries). These 11 questionnaires covered 5 national strategies and 7 city strategies. Out of these groups, women were mentioned most often (7 times), followed by youth (6 times), persons working in the informal waste sector (4 times), and ethnic groups (2 times).
   During the development of the waste strategies, the report "Gender and Waste Nexus – Experiences from Bhutan, Mongolia and Nepal" was prepared by project partner Grid-Arendal. From the 6 questionnaires relating to Bhutan, Mongolia and Nepal, 5 indicated that women's groups were involved.

10. The main recommendations and follow-up needs as mentioned by the respondents are as follows:
    - There is a need to deliver concrete project results, so pilot projects should be implemented;
    - Not all strategies have addressed all waste streams, so respondents expressed the need to include other waste streams, such as hazardous waste, e-waste, and health care waste in future;
    - Further technical support and expertise is needed to develop action plans and implement them, and for disposal of difficult (e.g. hazardous) waste;
    - Sound budgeting processes should be set up and support provided to set up financing mechanisms and get access to funding;
    - Public Participation needs to be improved;
    - Awareness raising and education need to be strengthened;

- The issue of waste management needs to be acknowledged also on the highest governmental level;
- More training and capacity building is needed.

ANNEX VI. BRIEF CV OF THE EVALUATORS

Name: **Sandra Molenkamp**

Profession	For 18 years (2001-1019); project manager at environmental organizations. Currently (2019-present): Evaluation and environmental consultant.
Nationality	Dutch
Country experience	• Europe: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Latvia, Lithuania, Macedonia, Moldova, the Netherlands, Romania, Russia, Ukraine, Switzerland • Africa: Ethiopia, Madagascar, ECOWAS countries • Americas: USA • Asia: Kyrgyzstan, Mongolia, Tajikistan
Education	MA Slavic Cultures and Languages
Relevant training	• Training on Mercury Initial Assessment, United Nations Institute for Training and Research (UNITAR), Minsk • Training course on Development of Environmental Management Plans and Health and Safety Plans, Food and Agriculture Organization of the United Nations (FAO), Rome • Training on Inventory and Safeguarding of POPs and Obsolete Pesticides (FAO), Minsk

Sandra Molenkamp is an independent consultant based in The Netherlands. She holds a Master of Arts degree in Slavic Cultures and Languages and has 18 years of experience in managing environmental projects in Eastern Europe, Russia, the Caucasus, Central Asia, and West Africa for the environmental NGOs Milieukontakt International and Green Cross Switzerland. Since 2004, Sandra Molenkamp has been involved in POPs and obsolete pesticides projects financed by the Netherlands Ministry of Foreign Affairs, FAO, UNEP, GEF, UNDP and Green Cross Switzerland with a focus on awareness raising, environmental and social impact assessments, technical capacity building, project evaluation and stakeholder involvement.

Key skills and experience for this assignment

- 18 years of experience in project management of international (environmental and health) projects in countries in transition and developing countries;
- Extensive experience in acquisition of projects, supporting the development of new project directions and writing project proposals;
- Experience in internal and external project evaluation and monitoring;
- Design and implementation of training and capacity building programmes;
- Design and implementation of community engagement plans;
- Experience with stakeholder involvement in POPs and waste projects;
- Networking and communication skills;
- Broad experience in financial and narrative reporting;

Selected recent assignments and experiences

- 2020: Supporting the UN International Telecommunication Union with preparation of a project proposal on e-waste;

- 2019: Conducting the terminal evaluation of the UNEP/GEF project "Demonstrating Cost-Effectiveness and Sustainability of Environmentally Sound and Locally Appropriate Alternatives to DDT for Malaria Vector Control in Africa;
- 2019: Providing expertise as Obsolete Pesticides and Environmental Remediation Advisor for FSD (Swiss Foundation for Mine Action) in Central Asia;
- 2019: Providing support to the CWCC (Chemicals Weapons Convention Coalition) to ensure participation of civil society organisations at the annual Conference of the State Parties of the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague.

Name: **Suman Lederer**

Profession	International Evaluation Consultant
Nationality	Austrian
Country experience	• Europe: Armenia, Austria, Germany, Belgium, France, Netherlands, North Macedonia, Portugal, Serbia • Africa: South Africa, Tanzania • Asia: India, Indonesia, Lao PDR, Mongolia, Philippines, Sri Lanka, Tajikistan, Thailand, Viet Nam • Oceania: Samoa, Solomon Islands
Education	• Master of Advanced International Studies, Diplomatic Academy of Vienna

Short biography

Ms. Suman Lederer is an independent evaluation consultant, currently based in Jakarta, Indonesia. She has studied Business Administration and International Relations. She has led and participated in several Thematic, Country and Project evaluations, with a focus on the evaluation of hazardous waste, POPs, environment as well as private-sector development projects, in Africa, Asia, Caucasus, Central Asia, South-Pacific, Southeast Europe. Further, she has work experience in the private sector and academia in Central and Western Europe.

Key skills and experience for this assignment:

- Vast experience in M&E, research and project management;
- Understanding of waste management issues;
- Proven previous experience in evaluation of Chemicals and Waste projects at UN Agencies;
- Experience in training and capacity building, including evaluation capacity building;
- Good communication and report-writing skills.

Selected Independent evaluations:

Team leader for the Mid-term evaluation of the UNIDO-GEF project: Removal of technical and economic barriers to initiating the clean-up activities for Alpha-HCH, Beta-HCH and Lindane-contaminated sites at OHIS in the Republic of North Macedonia.

Team member for the Terminal Evaluation of UNEP-GEF Project: Global Project on the Updating of NIPs for POPs. 2 Country Case Studies: Samoa and the Solomon Islands; 9 Country Status Reports, mainly Pacific countries.

Team leader for the Mid-term evaluation of the UNIDO-GEF project: Demonstration of BAT and BEP in open-burning activities in response to the Stockholm Convention on POPs in the ESEA.

Team leader for the Mid-term Evaluation of UNIDO-GEF project: PCB Management and Disposal at the Energy Sector in Lao PDR.

Team member for the Terminal Evaluation of the UNEP project: "Global Platform for Action on sustainable Consumption and Production (SCP): Supporting the implementation of the 10 Year Framework of Programmes on SCP (10 YFP)".

Team member for the Mid-term Evaluation of UNIDO-GEF project: Environmentally Sound Management of Medical Wastes in India.

Team leader for the Mid-term Evaluation of the UNIDO-GEF project: Environmentally sound management and disposal of PCB wastes and PCB-contaminated equipment in Sri Lanka.

Team member for the Terminal Evaluation of the UNIDO-GEF Regional Asia project: Demonstration of BAT and BEP in Fossil Fuel-fired Utility and Industrial Boilers in Response to the Stockholm Convention on POPs.

ANNEX VII. EVALUATION TORS (WITHOUT ANNEXES)

TERMS OF REFERENCE

Terminal Evaluation of three UNEP projects, implemented by the International Environmental Technology Centre (IETC) Unit
531.2 Secretariat Support to the Global Partnership on Waste Management (PIMS ID 1926)
531.1 Global Waste Management Outlook (PIMS ID 1875)
534.1 Delivering Integrated Waste Solutions at the National and Local Level (PIMS ID 1884)

Section 1: PROJECT BACKGROUND AND OVERVIEW

1. Projects Background and General Information

1. Demand from developing countries for international cooperation on waste management has grown over the last years. Population growth, urbanization and economic development have resulted in changing resource consumption patterns and have led to a rapid increase in waste volumes and types of waste. The traditional approach to waste management has been challenged by the increasing waste generation and the complex waste streams; this approach is resource-intensive especially with regard to land use and requires considerable amounts of energy. Moreover, it also generates negative environmental effects in the form of pollution and potential contamination.

2. Acknowledging this growing demand, UNEP's Governing Council and the United Nations Environment Assembly's (UNEA) called, in 2013, for greater support by UNEP on waste management and invited "*all stakeholders to support the sound management of chemicals and waste as an important contribution to building a green economy in the context of sustainable development and poverty eradication*" (GC, 27/12)[1]. In response, UNEP developed a comprehensive approach focused on supporting countries and stakeholders on waste management issues. This approach aims to address waste in all its forms (solid, liquid and gaseous) from a holistic perspective that supports sustainable development through the strengthening of circular economies. Since then, UNEP has become a key proponent of a global paradigm shift in waste management - from removal and disposal of waste to a holistic lifecycle approach.

3. As part of its work under the Sub-programme on Chemicals and Waste, UNEP, through its International Environmental Technology Centre (IETC) based in Japan, has led the implementation of several projects aimed at supporting countries in their efforts to enhance their waste management systems in a comprehensive manner. The Evaluation Office of UNEP is conducting the terminal portfolio evaluation covering three of these projects, namely:

a) the Global Waste Management Outlook project (531.1/PIMS ID 1875), aimed at producing scientific global and regional assessments on the state of waste management;
b) the "Secretariat support to the Global Partnership on Waste Management" project (531.2/PIMS ID 1926), centred on supporting the Secretariat functions of the GPWM;

[1] UNEP/GC.27/17 : http://wedocs.unep.org/bitstream/handle/20.500.11822/17292/K1350945.pdf?sequence=3&isAllowed=y

c) the "Delivering Integrated Waste Management Solutions at National and Local" project (534.1/PIMS ID 1884), focused on enhancing waste management systems by strengthening national and local capacities on the use of the holistic waste hierarchy approach.

Table 1a. Project summary – 1875 – Global Waste Management Outlook

UNEP PIMS ID:	1875	Global Waste Management Outlook (GWMO)	
Relevant SDG(s) and indicator(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.3, 12.4, 12.5, 12.11, 14.1		
Implementing Partners	International Solid Waste Association (ISWA)		
Sub-programme:	Chemicals and Waste	Expected Accomplishment(s):	EA 5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs
UNEP approval date:	02 April 2015	Programme of Work Output(s):	2014/15 & 2016/17 531: Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate actin on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management
Expected start date:	Feb 2012	Actual start date:	02 April 2015
Planned completion date:	Dec 2018	Actual operational completion date:	31 Dec 2018
Planned project budget at approval:	USD 2,333,297	Actual total expenditures reported as of 24 October 2019:	USD 2,177,216
Planned Environment Fund allocation:	USD 371,440	Actual Environment Fund expenditures reported as of 24 October 2019:	USD 371,440
Planned Extra-Budgetary Financing:	USD 1,961,857	Secured Extra-Budgetary Financing:	USD 2,095,322
		Actual Extra-Budgetary Financing	USD 1,805,776

		expenditures reported as of 24 October 2019:		
First disbursement:	N/A	Planned date of financial closure:	December 2019	
No. of formal project revisions:	None	Date of last approved project revision:	N/A	
No. of Steering Committee meetings:	3	Date of last/next Steering Committee meeting:	Last: March 2015	Next: N/A
Mid-term Review/ Evaluation *(planned date):*	None	Mid-term Review/ Evaluation (actual date):	None	
Terminal Evaluation *(planned date):*	December 2018	Terminal Evaluation (actual date):	I-II Quarter 2020	
Coverage - Country(ies):	Global	Coverage - Region(s):	Global	
Dates of previous project phases:	N/A	Status of future project phases:	Current PoW active now: 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support	

2. Project Rationale

4. In response to the shifting patterns of waste generation and management, UNEP's Governing Council requested UNEP to "develop a global outlook of challenges, trends and policies in relation to waste prevention, minimization and management …'. The IETC of UNEP, in collaboration with the International Solid Waste Association (ISWA), lead the development of the Global Waste Management Outlook (GWMO).

5. Given the general lack of information on the deployment and effectiveness of policy instruments being applied to address waste management challenges, such as national strategies, laws, regulations, taxes and economic incentives, as well as enforcement mechanisms, the GWMO aimed to focus on policy contexts and intended to analyse available information in order to identify waste management gaps and issues requiring attention.

6. During the preparatory phase of the GWMO, Member States also requested the production of a number of reports for the different regions, including: Latin America and the Caribbean (Forum of Ministers of Environment for LAC), Central Asia (Interstate Commission on Sustainable Development, ICSD) and Asia (Asian Development Bank, and Association of Southeast Asian Nations -ASEAN). This project was formulated to support UNEP in responding to its Governing Council and Member countries request of producing a global outlook and regional studies on waste management.

3. Project Objectives and Components

7. The overarching objective of the GWMO project was to provide an authoritative overview and analysis of policy instruments and financing models for waste management, at the global and regional level. Three knowledge products were envisaged as part of the final Waste Management Outlooks, namely:

1. Global: Global Waste Management Outlook
2. Regional: Asia, Africa, Central Asia, Latin America and Caribbean,
3. Thematic: Mountain Region WMO, SIDS Waste management Outlook

Table 1. GWMO project outcome and outputs

OUTCOME	OUTPUTS
Governments and other stakeholders have access to reliable and structured information on the state of waste management around the globe, particularly, and increasingly, use the information to develop policies and sustainable financing mechanisms	1) GWMO produced and published (e-publication)
	2) Regional WMOs (RWMO) produced and published (e-publications)
	3) GWMO and RWMOs launched and presented at different events (workshops, conferences etc)

Source: GWMO project document, April 2015

4. Executing Arrangements

8. The project was implemented by UNEP IETC, in collaboration with UNEP Regional Offices, and the International Solid Waste Association (ISWA). ISWA acted as implementing partner for the development of the Global Waste Management Outlook and provided technical input for most of the Outlooks. The project management team was supported by a Steering Committee/Technical committee consisting of a broad range of stakeholders including UNEP IETC, ISWA, government representatives, an international organization, the private sector and an NGO.

9. The Steering Committee/ Technical committee was established to provide guidance and quality assurance by: i) ensuring that the project scope was aligned with the Governing Council mandate and with the needs of the stakeholders expressed at the initial consultation meeting; and ii) reviewing drafts of the GWMO (and RWMOs) and providing feedback.

10. An editorial team was set-up during Phase I of the project in November 2013, completed before the start the current project (2015-2019) under revision. This editorial team was comprised of a Chief Editor, Advisor and Main Contributor, three Lead Authors and a Case Studies Editor. The project's implementing structure also envisaged inputs and feedback from other contributors, to be invited on a need's basis, and from UNEP Divisions and Regional Offices who were to be engaged during the development process of the GWMO.

Figure 1. Institutional arrangements for producing Global, Regional and Thematic Outlooks

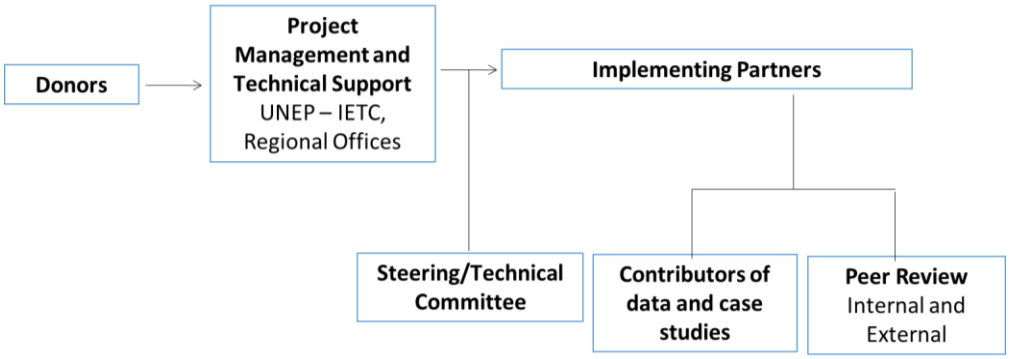
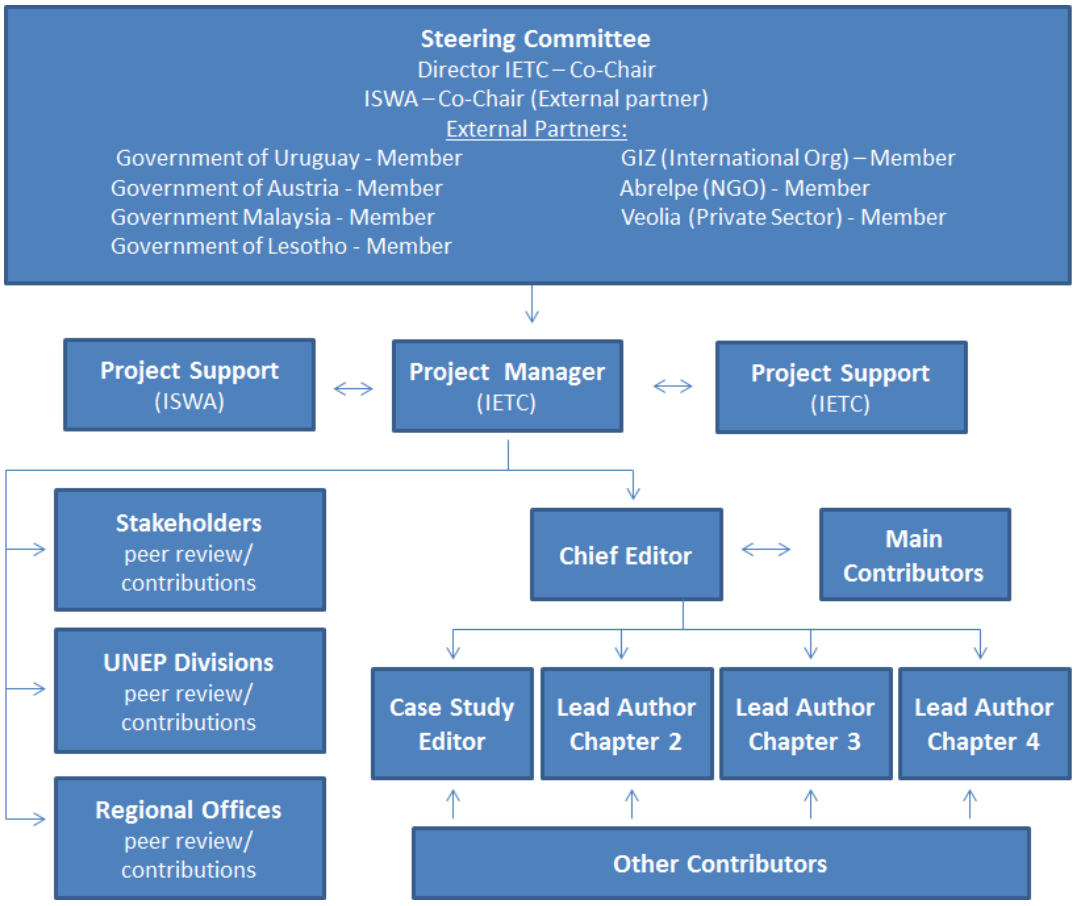


Figure 2. GWMO Organogram



5. Project Cost and Financing

11. The project total budget at design was USD 2,333,297, of which USD 902,419 was secured funding from the Government of Norway and Japan; USD 1,059,438 was unsecured extrabudgetary funds, and USD 371,440 was in-kind contributions from the Environment Fund (see table 2). Additional extra-budgetary cash resources were secured, from those initially planned (USD 1,961,857 planned vs. USD 2,095,322 secured). Total expenditures as of 24 October 2019 were USD 2,177,216, reaching a 93.3 percent expenditure ratio.

Table 2. Budget summary per funding source and year

TYPE OF FUNDING	SOURCE OF FUNDING		2015	2016	2017	2018	US$ Total
CASH BUDGET	Environment Fund activity budget						
	Regular Budget activity budget						
	Extra budgetary Funding (posts + non-post costs)	Donor funding secured Government of Japan Government of Norway	258,004 119,444[2]	142,146	142,146	142,146	684,442 119,444
		Programme Support Costs	43,096	18,479	18,479	18,479	98,533
		Subtotal secured XB funding	**420,544**	**160,625**	**160,625**	**160,625**	**902,419**
		Unsecured XB funding[3]	**258,268**	**393,240**	**307,360**	**100,570**	**1,059,438**
	TOTAL PROJECT CASH BUDGET (=EF or RB activity budget + Secured and unsecured XB funding)		678,812	553,865	467,985	261,195	1,961,857
IN-KIND CONTRIBUTION	Environment Fund post costs		92,860	92,860	92,860	92,860	371,440
	Regular Budget post costs		-	-	-	-	-
	TOTAL UNEP IN-KIND CONTRIBUTION		**92,860**	**92,860**	**92,860**	**92,860**	**371,440**
TOTAL UNEP MANAGED PROJECT BUDGET (=PROJECT CASH BUDGET + UNEP IN-KIND CONTRIBUTION)			**771,672**	**646,725**	**560,845**	**354,055**	**2,333,297**

Table 3. Budget and expenses by project component

Output ***All figures as USD***	**Estimated cost at design**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Output A. GWMO produced and published	293,154	n/a	n/a
Output B. RWMO produced and published	1,746,507	n/a	n/a
Output C. GWMO and RWMOs launched and presented at different events	176,116	n/a	n/a

Note: actual expenditure per output is not available in the Umoja system.

[2] As informed by the Subprogramme Officer but subject to final approval

[3] i.e. funding still to be mobilized

6. Implementation Issues

12. The project is reported to have experienced implementation delays due to UNEP's administrative processes, which were time demanding and required constant follow up. Delays were also faced when transitioning to the UMOJA system, in the recruitment of authors, in the completion of legal agreements and in transferring funds to UNEP's Regional Offices for the development of the Regional Waste Management Outlooks. Similarly, the project had envisaged a mid-term evaluation, but this did not take place due to lack of time and resources caused by substantial staff turnover during the midpoint of the project. Lack of reliable data on waste management on country level was also reported as a challenge.

Table 1b. Project summary – 1926 - Global Partnership on Waste Management

UNEP PIMS ID:	1926	Secretariat Support to the Global Partnership on Waste Management (GPWM)	
Implementing Partners	Asian Institute for Technology (AIT); International Solid Waste Association (ISWA); Basel Convention Regional Centers (BCRC)		
Relevant SDG(s) and indicator(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.3, 12.4, 12.5, 12.11, 14.1		
Sub-programme:	Chemicals and Waste	Expected Accomplishment(s):	EA 5C: Countries, including Major Groups and stakeholders, increasingly use the scientific and technical knowledge and tools needed to implement sound waste management and the related MEAs
UNEP approval date:	15 September 2015	Programme of Work Output(s):	2014/15 & 2016/17 – 531: Scientific assessments and secretariat support to the multi-stakeholder Global Partnership on Waste Management to focus attention and coordinate actin on wastes and waste management practices of particular concern and build the capacities of governments, the private sector and civil society to take up sound waste management
Expected start date:	Sept 2015	Actual start date:	15 September 2015
Planned completion date:	Dec 2018	Actual completion date:	31 December 2018
Planned project budget at	USD	Actual total	USD 3,283,668

approval:	5,496,041	expenditures reported as of [24 October 2019]:		
Planned Environment Fund allocation:	USD 250,000	Actual Environment Fund expenditures reported as of [24 October 2019]:	USD 250,000	
Planned Extra-Budgetary Financing:	USD 5,246,041	Secured Extra-Budgetary Financing:	USD 3,087,367[4]	
		Actual Extra-Budgetary Financing expenditures reported as of [24 October 2019]:	USD 3,033,668	
First disbursement:	N/A	Planned date of financial closure:	December 2019	
No. of revisions:	None	Date of last revision:	N/A	
No. of Steering Committee meetings:	2	Date of last/next Steering Committee meeting:	Last: Dec 17 2017	Next: N/A
Mid-term Review/ Evaluation *(planned date):*	N/A	Mid-term Review/ Evaluation (actual date):	N/A	
Terminal Evaluation *(planned date):*	November 2018	Terminal Evaluation (actual date):	I-II Quarter 2020	
Coverage - Country(ies):	Global	Coverage - Region(s):	Global	
Dates of previous project phases:	N/A	Status of future project phases:	Current PoW active now: 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support	

7. Project Rationale

13. The Global Partnership on Waste Management (GPWM) was established in 2010 as a key coordination mechanism on waste management, following several UNEP-led discussions and decisions from UNEP's Governing Council. The secretariat function for the Partnership is hosted in UNEP's IETC based in Japan. The GPWM was created as a knowledge platform and mechanisms to enhance international cooperation, outreach, advocacy, knowledge management and sharing for the

[4] Due to a diversion of resource mobilization efforts for this project to other projects, which had greater interaction with stakeholders, the project did not meet the planned extra budgetary financing.

implementation of integrated waste management at national and local levels. The GPWM project is part of UNEP's support to the GPWM Secretariat function and h goal of promoting international coordination between waste management projects for the adoption of a holistic and systematic approach to waste management.

8. Project Objectives and Components

14. The main objective of the GPWM project was to increase international cooperation on waste management to support developing countries improve their unsound management of wastes through the GPWM knowledge platform. The project was expected to help reduce the duplication between, and increase synergies among, waste management projects; increase the design of demand-based interventions; foster knowledge exchange and dissemination and address emerging waste streams including hazardous waste. To achieve its outcome, the project identified three project outputs, shown in Table 7.

Table 7. GPWM project outcome and outputs

OUTCOME	OUTPUTS
International cooperation on waste management increasingly uses the GPWM as a knowledge platform	1) Generated knowledge to inform international cooperation on waste management in developing countries
	2) Secretariat services and guidance provided to the Global Partnership on Waste Management to increase international coordination in supporting waste management in developing countries
	3) Pilot solutions for emerging and complex waste streams for potential future inclusion in GPWM approach

Source: Project document, September 2015

15. Output 1 on '*Knowledge generation*' focused on the production of scientific assessment reports and tools, to be disseminated in the GPWM biennium conference in 2017 and shared in the GPMW knowledge platform. Output 2 on '*Secretariat Services and guidance'* foresaw the set up and population of the GPMW platform, the organization of the Second and Third GPWM Biennium Conferences, the facilitation of support on sound management waste to 8 countries, and the documentation of the lessons learned from the pilot experiences with countries. Output 3 on *'Pilot solutions'* envisaged the development of a study on environmentally sound management, the implementation and reporting of at least one pilot project for emerging and complex waste streams, the production of 6 reports on mercury waste management, and the finalization of training modules on mercury waste.

9. Executing Arrangements

16. The governing body of the GPWM was the **GPWM Steering Committee**, composed of the GPWM co-chairs, the focal area leads and a UNEP IETC representative. Their role included reviewing and providing guidance on the overall workplan of the GPWM and the progress made pursuant of the GPWM Framework Document.

17. The functions of the **GPWM Secretariat,** hosted by UNEP's IETC, were described in the GPWM Framework Document (2016)[5], as the following: *'The secretariat manages the day-to-day coordination of the GPWM by gathering and sharing information on existing activities in waste management; supporting exchange of information and networking among participants; and facilitating the implementation of activities of the focal area working groups'.* The Secretariat was also expected to offer assistance to international organizations with the aim of maximizing their contributions in response to the demands from developing countries and of fulfilling the gap between international waste management programmes' outputs and country demands. Similarly, as outlined in the project document, the Secretariat was responsible for helping to improve the effectiveness, efficiency and coordination among UNEP projects on waste management, and helping projects to work closely with the Secretariat of the Global Mercury Partnership to coordinate new activities on mercury waste.

18. Eight **focal areas** were identified for the implementation of activities under the GPWM, each with a lead partner responsible for developing and implementing annual business plans in consultation with other stakeholders.

19. The project was managed by a UNEP IETC **Project Manager** in close cooperation with the UNEP offices which led the projects on marine litter (Ecosystem Division) and waste minimization (Economy Division). Substantive guidance from the Sub-Programme Coordinator for the Chemicals and Waste sub-programme was envisaged for this project. Regional Offices were expected to lead the implementation of scientific assessments in their regions and to provide coordination and partnerships with regional and sub-regional intergovernmental bodies. In addition, the activities under the GPWM were expected to be implemented in close cooperation with the Secretariat of the Basel, Rotterdam and Stockholm Conventions.

20. Other partners included the International Solid Waste Association (ISWA), the UN Industrial Development Organization (UNIDO) as well as the Asian institute for Technology (AIT) and the Basel Convention Regional Centers (BCRCs). Moreover, the project envisaged support from international and national organizations, including the Government of Japan for hazardous waste management focusing on mercury waste. The project implementation structure is summarized in figure 3, as follows:

5 http://www.sids2014.org/content/documents/commitments/9501_7462_commitment_The%20GPWM%20Framework%20Document.pdf

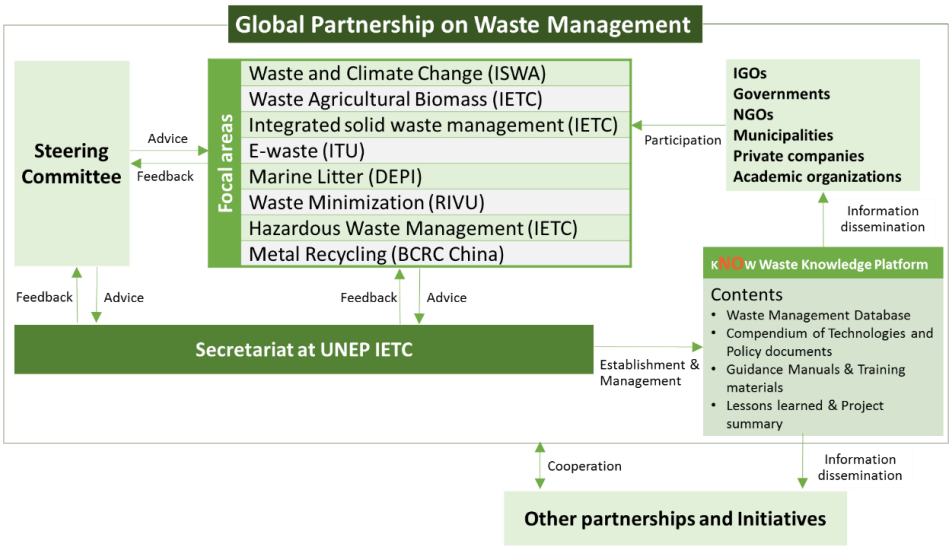


Figure 3. GPWM project implementation structure

Source: GPWM Framework Document (2016)

10. Project Cost and Financing

21. The project, which was funded by the Government of Japan, had a total budget of USD 5,496,041. Funding was received from different streams, including the Government of Japan's Trust Fund, the Mercury Fund A and the Mercury Fund B. In-kind contributions were provided by UNEP, estimated at USD 250,000. Table 5 provides an overview of the project's estimated budget by funding stream.

Table 5. Budget summary per funding source and year

TYPE OF FUNDING	SOURCE OF FUNDING		2015-16	2017-18	US$ Total
CASH BUDGET	Environment Fund activity budget		-	-	-
	Regular Budget activity budget		-	-	-
	Extra budgetary Funding (posts + non-post costs)	Donor funding secured 1.Government of Japan Trust Fund 2.Programme support costs for GoJ Trust Fund (13%)	1,395,240 181,381	1,445,240 187,881	2,840,480 369,262
		3. GoJ Mercury Fund (A) 4. Programme support costs for Mercury Fund (13%)	265,486 34,513	265,487 34,513	530,973 69,026
		3. GoJ Mercury Fund (B) 4. Programme support costs for Mercury Fund (13%)	453,500 58,955	77,473 10,072	530.973 69,026
		Subtotal secured XB funding	**2,389,075**	**2,020,666**	**4,409,741**
		Unsecured XB funding[6]	600,000	140,088	740,088

[6] i.e. funding still to be mobilized

		Programme support cost for Unsecured Fund (13%)	78,000	18,211	96,211
		Subtotal of Unsecured XB funding	**678,000**	**158,299**	**836,299**
	TOTAL PROJECT CASH BUDGET (=EF or RB activity budget + Secured and unsecured XB funding)		**3,067,075**	**2,178,965**	**5,246,041**
IN-KIND CONTRIBUTION	Environment Fund post costs		**125,000**	**125,000**	**250,000**
	Regular Budget post costs				
	TOTAL UNEP IN-KIND CONTRIBUTION				
TOTAL UNEP MANAGED PROJECT BUDGET (=PROJECT CASH BUDGET + UNEP IN-KIND CONTRIBUTION)			**3,192,075**	**2,303,965**	**5,496,041**

Source: project document, September 2015

Table 6. Budget and expenses by project component

Outputs *All figures as USD*	**Estimated cost at design**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
Generated knowledge to inform international cooperation on waste management in developing countries	766,413	n/a	n/a
Secretariat services and guidance provided to the Global Partnership on Waste Management to increase international coordination in supporting waste management in developing countries	1,321,929	n/a	n/a
Pilot solutions for emerging and complex waste streams for potential future inclusion in GPWM approach	3,407,699	n/a	n/a

Note: actual expenditure per output is not available in the Umoja system.

Table 1c. Project summary – 1884 – Integrated Waste Solutions at National and Local Level

UNEP PIMS ID:	1884	Delivering Integrated Waste Solutions at the National and Local Level	
Implementing Partners	AIT, Kyoto University, TERI University, Tongji University, BCRC SEA, ISWA		
Relevant SDG(s) and indicator(s):	3.9, 5.5, 6.3, 8.4, 11.6, 12.3, 12.4, 12.5, 12.11, 14.1		
Sub-programme:	Chemicals and Waste	Expected Accomplishment(s):	EA 5C: *see table 1a above.*
UNEP approval date:	29 April 2015	Programme of Work Output(s):	2018/19-534: Support to strengthen cooperation, coordination and

			partnerships across the globe, including within the United Nations system, and enhance linkages and synergies among major air quality programmes and stakeholders. 2016/17-534: Technical services demonstrating and implementing sound waste management techniques delivered regionally and nationally with strategic partners. 2014/15-534: Technical services demonstrating and implementing sound waste management techniques delivered regionally and nationally with strategic partners	
Expected start date:	April 2015	Actual start date:	29 April 2015	
Planned completion date:	March 2019	Actual operational completion date:	31 March 2019	
Planned project budget at approval:	USD 10,189,439	Actual total expenditures reported as of 24 October 2019:	USD 8,148,208	
Planned Environment Fund allocation:	USD250,000	Actual Environment Fund expenditures reported as of 24 October 2019:	USD 250,000	
Planned Extra-Budgetary Financing:	USD 9,939,439	Secured Extra-Budgetary Financing:	USD 8,739,146	
		Actual Extra-Budgetary Financing expenditures reported as of 24 October 2019:	USD 7,898,208	
First disbursement:	N/A	Planned date of financial closure:	March 2020	
No. of formal project revisions:	None	Date of last approved project revision:	N/A	
No. of Steering Committee meetings:	N/A	Date of last/next Steering Committee	Last: Oct 2017	Next: None

		meeting:	
Mid-term Review/ Evaluation *(planned date):*	None	Mid-term Review/ Evaluation (actual date):	None
Terminal Evaluation *(planned date):*	July 2018	Terminal Evaluation (actual date):	I-II Quarter 2020
Coverage - Country(ies):	Bhutan, Cambodia, Honduras, India, Nepal, Malaysia, Myanmar, Mongolia, Saint Lucia, Tajikistan, Tanzania, Thailand, Vietnam	Coverage - Region(s):	Africa, Asia Pacific (incl. Central and West Asia), Latin America & Caribbean, SIDS and Mountain Countries
Dates of previous project phases:	N/A	Status of future project phases:	N/A

11. Project Rationale

22. UNEP has a long history of working to promote the adoption of integrated waste management solutions in countries around the world. Between 2010-2014, UNEP implemented the project '*61-P8 Policies and Tools at the City Level - best practices to improve waste management, water and sanitation and energy efficiency for sustainable urban development'*, which supported the development of integrated solid waste management plans by local governments in Asia, Africa and the Latin America and Caribbean, and the development of guidelines and compendia of technologies for the management of specific waste streams such as E-waste, waste plastics and waste agricultural biomass.

23. The project '*Delivering Integrated Waste Solutions at the National and Local Level*' builds on UNEP's previous experience in local waste management activities and seeks to further improve waste management systems by promoting the 3R or waste hierarchy approach, i.e. waste prevention, waste reduction through reuse and recycling and proper disposal for residual waste. Waste management systems are comprised of policies, institutional arrangements, financing mechanisms, technology and infrastructure, as well as explicit roles and responsibilities allocated to different stakeholders. This project focused on strengthening the institutional framework and financing mechanisms, through the development of national and local level waste management strategies, while another UNEP IETC project "*Development and Deployment of Waste Management Techniques and Guidance*"[7], addressed the technology and infrastructure aspect of waste management systems.

12. Project Objectives and Components

[7] PIMS ID 1839/532.1, implemented between January 2015 and December 2016.

24. The overall project objective was to create enabling conditions and to promote behavioral changes, so that waste would be treated and disposed of in an environmentally sound manner. In the long run, this was expected to result in the reduction of adverse impacts on the human health and environment. To achieve this objective of enabling conditions for effective waste management, the project envisaged one main outcome, three components and three outputs (see table 4).

25. The project supported multiple countries in their efforts to improve their waste management systems, at national and city level. These included: Tanzania in Africa; Bhutan, Cambodia, India, Nepal, Malaysia, Myanmar, Mongolia, Thailand and Vietnam in Asia; Tajikistan in Central Asia; and Honduras and Saint Lucia in Latin America and the Caribbean. City level waste management plans were supported in Bangkok (Thailand), Ho Chi Minh City (Vietnam), Kota (India), Penang (Malaysia), Mandalay (Myanmar), Omoa (Honduras) and Ulaanbaatar (Mongolia).

Table 4. Project outcomes, components and outputs

OUTCOMES	COMPONENTS	OUTPUTS
1. Improved capacity of national and local governments in developing countries to apply the waste hierarchy approach 2. Stakeholder awareness and participation has increased and there is active political support to improve waste management in a holistic manner in project countries	1. Awareness raising and long-term capacity building on waste management	1) Support the collection of state-of-the-art waste hierarchy approach knowledge, fill knowledge gaps on 3R and made knowledge products available for developing countries
	2. National and city level waste management strategies leading to development of legislative framework	2) Support project countries to strengthen capacities for 3R/waste hierarchy approach
	3. Regional and sub-regional guidance notes for national legislations on waste management	3) Promote the replication and scaling up of the waste hierarchy approach in developing countries supported by regional/sub-regional bodies and partnerships

Source: Project document, May 2015

13. Executing Arrangements

26. The project was managed by UNEP IETC, in close cooperation with UNEP Regional Offices in Asia Pacific, Europe, Latin America and the Caribbean and Africa. The Regional Offices were expected to use their extensive networks in the pilot countries and to support the project by identifying experts, among other tasks. The UNEP IETC **Project Manager**, supervised by the IETC Director, was responsible for the overall coordination of the project with external partners and for ensuring the delivery of the foreseen activities and outputs.

27. A **Project Steering Committee** was established to oversee and advise on the project implementation and ensure its alignment with the overall UNEP programme of work. The steering committee members were the director of IETC, the directors of UNEP's regional offices (Asia and the Pacific, Latin America and the Caribbean, Africa, Europe, North America and West Asia), the head of UNEP's Division of Technology, Industry and Economics, Sustainable Consumption and Production Branch (named 'Economy Division' since 2017) Chemicals Branch (now the Economy Division) and a representative from ISWA.

28. Partnerships with different institutions were envisaged for the implementation of the different project components. The main identified partners for component 1 were the International Solid

Waste Association (ISWA), Institute for Global Environmental Strategies (IGES) and Asian Institute of Technology (AIT).Component 2 was to be implemented in partnership with national and local governments, and Component 3 with sub-regional bodies and intergovernmental institutions such as the Association of Southeast Asian Nations (ASEAN) and the Interstate Commission on Sustainable Development (ICSD).

29. Close coordination was envisaged with two other UNEP projects: 5A6 - Promoting enabling environments at the national level for the sound waste management of waste and 5C4- Delivering integrated waste solutions at the national and local levels.

14. Project Cost and Financing

30. The project had a total budget of USD10,189,439. Funding support was received initially from the Government of Japan, through the IETC Trust Fund (USD 3,189,838), the Government of Nigeria and the Climate and Clean Air Coalition (CCAC) with USD 400,000 each, and in-kind contributions from the Environment Fund, USD 250,000.

Table 5. Budget summary per funding source and year

TYPE OF FUNDING	SOURCE OF FUNDING		2015	2016	2017	2018	US$ Total
CASH BUDGET	**Environment Fund activity budget**		*250,000*	*250,000*	*250,000*	*250,000*	*1,000,000*
	Regular Budget activity budget						
	Extrabudgetary Funding (posts + non-post costs)	Donor funding secured					
		Government of Japan	535,190	916,440	857,792	880,416	3,189,838
		CCAC[8]	100,000	100,000	100,000	100,000	400,000
		Kogi State, Nigeria[9]		100,000	100,000		200,000
		Zamfara State, Nigeria[10]		100,000	100,000		200,000
		Programme Support Costs	77,575	153,137	145,513	122,454	498,679
		Subtotal secured XB funding	*712,765*	*1,369,577*	*1,303,305*	*1,102,870*	*4,488,517*
		Unsecured XB funding[11]	*100,000*	*600,000*	*1,814,898*	*1,936,024*	*4,450,922*
	TOTAL PROJECT CASH BUDGET (=EF or RB activity budget + Secured and unsecured XB funding)		**1,062,765**	**2,219,577**	**3,368,203**	**3,288,894**	**9,939,439**
IN-KIND CONTRIBUTION	Environment Fund post costs						
	Regular Budget post costs		**62,500**	**62,500**	**62,500**	**62,500**	**250,000**
	TOTAL UNEP IN-KIND CONTRIBUTION		**62,500**	**62,500**	**62,500**	**62,500**	**250,000**
TOTAL UNEP MANAGED PROJECT BUDGET (=PROJECT CASH BUDGET + UNEP IN-KIND CONTRIBUTION)			**1,125,265**	**2,282,077**	**3,430,703**	**3,351,394**	**10,189,439**

[8] Donors are: Canada, USA, Japan, Sweden. Funds are routed through the CCAC secretariat; programme support costs are already substracted.
[9] Kogi State, Nigeria funding will be through UN-Habitat as per agreement signed between the two on 10 October 2013
[10] Zamfara State, Nigeria funding will be through UN-Habitat as per agreement signed between the two on 10 February 2014
[11] i.e. funding still to be mobilized

Table 6. Budget and expenses by project component

Components *All figures as USD*	**Estimated cost at design**	**Actual Cost/ expenditure**	**Expenditure ratio (actual/planned)**
1. Awareness raising and long-term capacity building on waste management	3,722,176	n/a	n/a
2. National and city level waste management strategies leading to development of legislative framework	4,606,176	n/a	n/a
3. Regional and sub-regional guidance notes for national legislations on waste management	1,861,088	n/a	n/a

Note: actual expenditure per output is not available in the Umoja system.

15. Implementation Issues

31. According to the project's monitoring information in PIMS, the project had an initial delay in its early stages due to UNEP's transition to the Umoja system in 2015. Delays were also faced in the development of the necessary legal instruments, which in turn affected the implementation of the demonstration projects. Similarly, due to changes in government and local partners, renewed dialogue is reported to have been required with the new focal points to ensure the project got back on track.

Section 2. OBJECTIVE AND SCOPE OF THE EVALUATION

16. Objective of the Evaluation

32. In line with the UNEP Evaluation Policy[12] and the UNEP Programme Manual[13], the Terminal Evaluation (TE) is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and its partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation for the Chemicals and Waste Sub-Programme.

17. Key Evaluation Principles

33. Evaluation findings and judgements will be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be

[12] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

[13] http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf . *This manual is under revision.*

mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

34. **The "Why?" Question.** As this is a terminal evaluation and a follow-up project is now under implementation[14], particular attention will be given to learning from the experience. The assessment of the "*Why?*" question will be supported by the use of a theory of change approach. The evaluation will therefore go beyond the assessment of "*what*" the project performance was and make a serious effort to provide a deeper understanding of "*why*" the performance was as it was (i.e. what contributed to the achievement of the project's results). This should provide the basis for the lessons that can be drawn from the project and be used to improve implementation of ongoing or future projects on waste management.

35. **Attribution, Contribution and Credible Association**: In order to attribute any outcomes and impacts to a project intervention, one needs to consider the difference between what has happened with, and what would have happened without, the project (i.e. take account of changes over time and between contexts in order to isolate the effects of an intervention). This requires appropriate baseline data and the identification of a relevant counterfactual, both of which are frequently not available for evaluations. Establishing the contribution made by a project in a complex change process relies heavily on prior intentionality (e.g. approved project design documentation, logical framework) and the articulation of causality (e.g. narrative and/or illustration of the Theory of Change). Robust evidence that a project was delivered as designed and that the expected causal pathways developed supports claims of contribution and this is strengthened where an alternative theory of change can be excluded. A credible association between the implementation of a project and observed positive effects can be made where a strong causal narrative, although not explicitly articulated, can be inferred by the chronological sequence of events, active involvement of key actors and engagement in critical processes.

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

18. Evaluation Criteria

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

[14] UNEP IETC's current project 521.1 'Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support' (2018-2021), builds on and consolidates the achievements of the three projects under evaluation.

Factors Affecting Project Performance. The evaluation consultants can propose other evaluation criteria as deemed appropriate.

A. Strategic Relevance

38. The evaluation will assess, in line with the OECD/DAC definition of relevance, *'the extent to which the activity is suited to the priorities and policies of the target group, recipient and donor'.* The evaluation will include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

i. *Alignment to the UNEP Medium Term Strategy[15] (MTS), Programme of Work (POW) and Priorities*

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

40. UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building[16] (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries.

ii. *Alignment to Donor Strategic Priorities*

41. Donor strategic priorities will vary across interventions. The evaluation will assess the project's alignment with the priorities of the Government of Japan, the Government of Norway and other funding partners.

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

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

iv. *Complementarity with Existing Interventions*

43. An assessment will be made of how well the projects, either at design stage or during the project inception or mobilization[17], took account of ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies) that address similar needs of the same target groups. The evaluation will consider if the project teams, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided

[15] UNEP's Medium-Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents

[16] http://www.unep.fr/ozonaction/about/bsp.htm

[17] A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

duplication of effort. Examples may include UN Development Assistance Frameworks or One UN programming. Linkages with other interventions should be described and instances where UNEP's comparative advantage has been particularly well applied should be highlighted.

Factors affecting this criterion may include:

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness

B. Quality of Project Design

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

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

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

C. Nature of External Context

45. At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval[18]). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Availability of Outputs[19]

46. The evaluation will assess the project's success in producing the programmed outputs *(products, capital goods and services resulting from the intervention)* and achieving milestones as per the project design document (ProDoc). Any *formal* modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the ToC. In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The delivery of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their delivery. The evaluation will briefly explain the

[18] Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management by the project team.

[19] Outputs are the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities and awareness of individuals or within institutions (UNEP, 2019)

reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision[20]

ii. Achievement of Project Outcomes[21]

47. The achievement of direct outcomes *(short and medium-term effects of the intervention's outputs; a change of behaviour resulting from the use/application of outputs, which is not under the direct control of the intervention's direct actors)* is assessed as performance against the direct outcomes as defined in the reconstructed[22] Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation will report any evidence of attribution between UNEP interventions and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UNEP's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realised.

Factors affecting this criterion may include:

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

iii. Likelihood of Impact

48. Based on the articulation of longer-term effects in the reconstructed ToC *(i.e. from direct outcomes, via intermediate states, to impact),* the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the ToC, possibly as intermediate states or long-term impacts. The Evaluation Office's approach to the use of ToC in project evaluations is outlined in a guidance note available on the Evaluation Office website, https://www.unenvironment.org/about-un-environment/evaluation, and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from direct outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed ToC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

49. The evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects. Some of these potential negative effects may have been identified in

[20] 'Project management and supervision' refers to the supervision and guidance provided by UNEP to implementing partners and national governments.

[21] Outcomes are the use (i.e. uptake, adoption, application) of an output by intended beneficiaries, observed as changes in institutions or behavior, attitude or condition (UNEP, 2019)

[22] UNEP staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during an evaluation will depend on the quality of this initial ToC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a ToC will need to be constructed in the inception stage of the evaluation.

the project design as risks or as part of the analysis of Environmental, Social and Economic Safeguards.[23]

50. The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication[24] as part of its Theory of Change and as factors that are likely to contribute to longer term impact.

51. Ultimately UNEP and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-term or broad-based changes. However, the evaluation will assess the likelihood of the project to make a substantive contribution to the long-lasting changes represented by the Sustainable Development Goals, and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s).

Factors affecting this criterion may include:

- Quality of Project Management and Supervision (including adaptive management)
- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness
- Communication and public awareness

E. Financial Management

52. Financial management will be assessed under three themes: *adherence* to UNEP's financial policies and procedures, *completeness* of financial information and *communication* between financial and project management staff. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output/component level and will be compared with the approved budget. The evaluation will verify the application of proper financial management standards and adherence to UNEP's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted. The evaluation will record where standard financial documentation is missing, inaccurate, incomplete or unavailable in a timely manner. The evaluation will assess the level of communication between the Project Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision

F. Efficiency

53. In keeping with the OECD/DAC definition of efficiency the evaluation will assess the extent to which the project delivered maximum results from the given resources. This will include an

[23] Further information on Environmental, Social and Economic Safeguards (ESES) can be found at http://wedocs.unep.org/handle/20.500.11822/8718

[24] *Scaling up* refers to approaches being adopted on a much larger scale, but in a very similar context. Scaling up is often the longer-term objective of pilot initiatives. *Replication* refers to approaches being repeated, or lessons being explicitly applied in new/different contexts e.g. other geographic areas, different target group etc. Effective replication typically requires some form of revision or adaptation to the new context. It is possible to replicate at either the same or a different scale.

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

54. The evaluation will give special attention to efforts by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities[25] with other initiatives, programmes and projects etc. to increase project efficiency.

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

Factors affecting this criterion may include:

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

G. Monitoring and Reporting

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

i. Monitoring Design and Budgeting

57. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART[26] indicators towards the delivery of the projects outputs and achievement of direct outcomes, including at a level disaggregated by gender, vulnerability or marginalisation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

ii. Monitoring of Project Implementation

58. The evaluation will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards projects objectives throughout the project implementation period. This should include monitoring the representation and participation of disaggregated groups in project activities. It will also consider how information generated by the monitoring system during project implementation was used to adapt and improve project execution,

[25] Complementarity with other interventions during project design, inception or mobilization is considered under Strategic Relevance above.

[26] SMART refers to results that are specific, measurable, achievable, realistic and time-oriented. Indicators help to make results measurable.

achievement of outcomes and ensure sustainability. The evaluation should confirm that funds allocated for monitoring were used to support this activity.

iii. Project Reporting

59. UNEP has a centralised Project Information Management System (PIMS) in which project managers upload six-monthly status reports against agreed project milestones. This information will be provided to the Evaluation Consultant(s) by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team. The evaluation will assess the extent to which both UNEP and donor reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups.

Factors affecting this criterion may include:

- Quality of project management and supervision
- Responsiveness to human rights and gender equity (e.g disaggregated indicators and data)

H. Sustainability

60. Sustainability[27] is understood as the probability of direct outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the endurance of achieved project outcomes (ie. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of project outcomes may also be included.

i. Socio-political Sustainability

61. The evaluation will assess the extent to which social or political factors support the continuation and further development of project outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the evaluation will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

62. Some project outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to undertake actions to enforce the policy. Other project outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new resource management approach. The evaluation will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the project's outcomes have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

[27] As used here, 'sustainability' means the long-term maintenance of outcomes and consequent impacts, whether environmental or not. This is distinct from the concept of sustainability in the terms 'environmental sustainability' or 'sustainable development', which imply 'not living beyond our means' or 'not diminishing global environmental benefits' (GEF STAP Paper, 2019, Achieving More Enduring Outcomes from GEF Investment)

63. The evaluation will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure. In particular, the evaluation will consider whether institutional capacity development efforts are likely to be sustained.

Factors affecting this criterion may include:

- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined)
- Communication and public awareness
- Country ownership and driven-ness

I. Factors Affecting Project Performance and Cross-Cutting Issues

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

i. Preparation and Readiness

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

ii. Quality of Project Management and Supervision

65. In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, it will refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UNEP.

66. The evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including Steering Groups etc.); communication and collaboration with UNEP colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. Stakeholder Participation and Cooperation

67. Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs and target users of project outputs and any other collaborating agents external to UNEP. The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups should be considered.

iv. Responsiveness to Human Rights and Gender Equity

68. The evaluation will ascertain to what extent the project has applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the evaluation will assess to what extent the intervention adheres to UNEP's Policy and Strategy for Gender Equality and the Environment[28].

69. In particular the evaluation will consider to what extent project implementation and monitoring have taken into consideration: (i) possible inequalities (especially those related to gender) in access to, and the control over, natural resources; (ii) specific vulnerabilities of disadvantaged groups (especially women, youth and children) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially those related to gender) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

v. Environmental and Social Safeguards

UNEP projects address environmental and social safeguards primarily through the process of environmental and social screening at the project approval stage, risk assessment and management (avoidance, minimization, mitigation or, in exceptional cases, offsetting) of potential environmental and social risks and impacts associated with project and programme activities. The evaluation will confirm whether UNEP requirements[29] were met to: *review* risk ratings on a regular basis; *monitor* project implementation for possible safeguard issues; *respond* (where relevant) to safeguard issues through risk avoidance, minimization, mitigation or offsetting and r*eport* on the implementation of safeguard management measures taken. UNEP requirements for proposed projects to be screened for any safeguarding issues; for sound environmental and social risk assessments to be conducted and initial risk ratings to be assigned are evaluated above under Quality of Project Design). The evaluation will also consider the extent to which the management of the project minimised UNEP's environmental footprint.

vi. Country Ownership and Driven-ness

70. The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, ie. either a) moving forwards from outputs to direct outcomes or b) moving forward from direct outcomes towards intermediate states. The evaluation will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices (e.g. representatives from multiple sectors or relevant ministries beyond Ministry of Environment). This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. This ownership should adequately represent the needs of interest of all gendered and marginalised groups.

---

[28] The Evaluation Office notes that Gender Equality was first introduced in the Project Review Committee Checklist in 2010 and, therefore, provides a criterion rating on gender for projects approved from 2010 onwards. Equally, it is noted that policy documents, operational guidelines and other capacity building efforts have only been developed since then and have evolved over time. https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender_equality_and_the_environment_Policy_and_strategy-2015Gender_equality_and_the_environment_policy_and_strategy.pdf.pdf?sequence=3&isAllowed=y

[29] For the review of project concepts and proposals, the Safeguard Risk Identification Form (SRIF) was introduced in 2019 and replaced the Environmental, Social and Economic Review note (ESERN), which had been in place since 2016. In GEF projects safeguards have been considered in project designs since 2011.

vii. Communication and Public Awareness

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

Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

72. The Terminal Evaluation will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

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

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

- Relevant background documentation, inter alia: project documents,
- 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, final implementation report, where available;
- Project outputs and deliverables, including technical reports, global and regional assessments, frameworks and guidelines;

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

- UNEP Project Managers (PM);
- Project management teams;
- UNEP Fund Management Officer (FMO);
- Sub-Programme Coordinator, Chemicals and Waste (current and former position holders);
- Project partners, including; AIT, BCRC, ISWA, UNIDO, UNEP Regional Offices, Steering Committee members, partner universities, national and local government representatives, among others partners as listed in annex 2;
- Relevant resource persons.

(c) **Surveys:** A survey might be administered, if a sufficiently large number of relevant respondents is identified or to supplement information gathered during country visits. This will be defined at the inception phase.

(d) **Field visits:** Up to 4 country visits may be undertaken, depending on the geographic nature of the project implementation

(e) **Other data collection tools**: The majority of primary data will be collected through semi-structured interviews.

(f)

19. Evaluation Deliverables and Review Procedures

74. The evaluation consultant will prepare:

- **Inception Report:** (see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.
- **Preliminary Findings Note:** typically in the form of a powerpoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings.
- **Draft and Final Evaluation Report:** (see links in Annex 1) containing an executive summary that can act as a stand-alone document; detailed analysis of the evaluation findings organised by evaluation criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.
- An **Evaluation Brief** (a 2-page overview of the evaluand and evaluation findings) for wider dissemination through the UNEP website may be required. This will be discussed with the Evaluation Manager no later than during the finalization of the Inception Report.

75. **Review of the draft evaluation report**. The evaluation consultant will submit a draft report to the Evaluation Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Evaluation Manager will share the cleared draft report with the Project Manager, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward revised draft report (corrected by the evaluation team where necessary) to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Evaluation Manager for consolidation. The Evaluation Manager will provide all comments to the evaluation team for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

76. Based on a careful review of the evidence collated by the evaluation consultants and the internal consistency of the report, the Evaluation Manager will provide an assessment of the ratings in the final evaluation report. Where there are differences of opinion between the evaluator and the Evaluation Manager on project ratings, both viewpoints will be clearly presented in the final report. The Evaluation Office ratings will be considered the final ratings for the project.

77. The Evaluation Manager will prepare a **quality assessment** of the first and final drafts of the main evaluation report, which acts as a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in template listed in Annex 1 and this assessment will be appended to the Final Evaluation Report.

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

20. The Evaluation Team

79. For this evaluation, the Evaluation Team will consist of a Principal Evaluator and one Evaluation Specialist who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager, Natalia Acosta, in consultation with the UNEP Project Managers, Daniel Ternauld, Claudia Giacovelli and Shunichi Honda, Fund Management Officer, Michiko Ota and the Sub-programme Coordinator of the Chemicals and Waste Sub-programme, Tessa Goverse. The consultants will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation, including travel. It is, however, each consultants' individual responsibility to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Project Managers and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the evaluation as efficiently and independently as possible.

80. The Principal Evaluator is planned to be hired for 9 months spread over the period January 2020 to September 2020 and should have: an advanced university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 8 years of technical / evaluation experience, including of evaluating large, regional or global programmes preferably using a Theory of Change approach; a broad understanding of chemicals and waste management issues and approaches, and experience coordinating and leading teams. A first-level university degree in combination with qualifying experience may be accepted in lieu of an advanced university degree. For this consultancy, fluency in oral and written English is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

81. The Evaluation Specialist is planned to be hired for 9 months spread over the period January 2020 to September 2020 and should have: an undergraduate university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 6 years of technical/ evaluation experience; and a good understanding of waste management issues. A first-level university degree in combination with qualifying experience may be accepted in lieu of an advanced university degree. For this consultancy, fluency in oral and written English is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

82. The Principal Evaluator will be responsible, in close consultation with the Evaluation Manager, for overall management of the evaluation and timely provision of its outputs, described above in Section 19 Evaluation Deliverables. The Evaluation Specialist will make substantive and high-quality contributions to the evaluation process and outputs. Together, both consultants will ensure that all evaluation criteria and questions are adequately covered, and will together undertake the following:

Inception phase of the evaluation, including:

- preliminary desk review and introductory interviews with project staff;
- draft the reconstructed Theory of Change of the project(s);
- prepare the evaluation framework;
- develop the desk review and interview protocols;
- draft the survey protocols (if relevant);
- develop and present criteria for country and/or site selection for the evaluation mission;
- plan the evaluation schedule;
- prepare the Inception Report, incorporating comments until approved by the Evaluation Manager

Data collection and analysis phase of the evaluation, including:

- conduct further desk review and in-depth interviews with project implementing and executing agencies, project partners and project stakeholders;
- (where appropriate and agreed) conduct an evaluation mission(s) to selected countries, visit the project locations, interview project partners and stakeholders, including a good representation of local communities. Ensure independence of the evaluation and confidentiality of evaluation interviews.
- regularly report back to the Evaluation Manager on progress and inform of any possible problems or issues encountered and;
- keep the Project Manager informed of the evaluation progress,
- draft the presentation of preliminary findings based on the collected data and evidence, and present it to the project team.

Reporting phase, including:
- draft the Main Evaluation Report, ensuring that the evaluation report is complete, coherent and consistent with the Evaluation Manager guidelines both in substance and style;
- liaise with the Evaluation Manager on comments received and finalize the Main Evaluation Report, ensuring that comments are taken into account until approved by the Evaluation Manager
- prepare a Response to Comments annex for the main report, listing those comments not accepted by the Evaluation Consultant and indicating the reason for the rejection; and
- (where agreed with the Evaluation Manager) prepare an Evaluation Brief (2-page summary of the evaluand and the key evaluation findings and lessons).

Managing relations, including:
- maintain a positive relationship with evaluation stakeholders, ensuring that the evaluation process is as participatory as possible but at the same time maintains its independence;
- communicate in a timely manner with the Evaluation Manager on any issues requiring its attention and intervention.

21. Schedule of the Evaluation

83. The table below presents the tentative schedule for the evaluation. The conduct of the evaluation missions will depend on the coronavirus pandemic situation and the travel restrictions implemented by the countries.

Table 3. Tentative schedule for the evaluation

Milestone	**Tentative Dates (2020)**
Inception Phase	
Evaluation Initiation Meeting	January
Preliminary desk Review	January
Inception Interviews and consultations	January
Inception Report	Mid-February
Data collection and Analysis Phase	
Telephone interviews, surveys etc.	April/ May
Evaluation Mission (Japan, Thailand, etc)	June
Powerpoint/presentation on preliminary findings and recommendations	June
Reporting phase	
Draft report to Evaluation Manager (and Peer Reviewer)	July
Draft Report shared with UNEP Project Manager	August

and team	
Draft Report shared with wider group of stakeholders	September
Final Report	September

22. Contractual Arrangements

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

85. Fees will be paid on an instalment basis, paid on acceptance by the Evaluation Manager of expected key deliverables. The schedule of payment is as follows:

86. Schedule of Payment for the Consultants:

Deliverable	**Percentage Payment**
Approved Inception Report *(as per annex document 7)*	30%
Approved Draft Main Evaluation Report *(as per annex document 13)*	30%
Approved Final Main Evaluation Report	40%

87. Fees only contracts: Air tickets will be purchased by UNEP and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Evaluation Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

88. The consultant may be provided with access to UNEP's Programme Information Management System (PIMS) and if such access is granted, the consultant agrees not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report.

89. In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultant has improved the deliverables to meet UNEP's quality standards.

90. If the consultant fails to submit a satisfactory final product to UNEP in a timely manner, i.e. before the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ANNEX VIII. QUALITY ASSESSMENT OF THE EVALUATION REPORT

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
Quality of the Executive Summary: The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.	Final report: Executive summary included and covers all the key aspects.	6
I. Introduction A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.) Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?	Final report: No changes made – section was comprehensive at draft	6
II. Evaluation Methods A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.). Methods to ensure that potentially excluded groups (excluded by gender, vulnerability or marginalisation) are reached and their experiences captured effectively, should be made explicit in this section. The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described. It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in documentation; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome. Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views. Is there an ethics statement?	Final report: The report was improved by consolidating all the information on questionnaire responses, including limitations in this section.	6

III. The Project This section should include: • *Context:* Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses). • *Results framework*:: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) • *Stakeholders:* Description of groups of targeted stakeholders organised according to relevant common characteristics • *Project implementation structure and partners:* A description of the implementation structure with diagram and a list of key project partners • *Changes in design during implementation:* Any key events that affected the project's scope or parameters should be described in brief in chronological order • *Project financing:* Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing	Final report: Sections meets all the quality requirements	6
IV. Theory of Change The *TOC at Evaluation* should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors. This section should include a description of how the *TOC at Evaluation*[30] was designed (who was involved etc.) and applied to the context of the project? Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow UNEP's definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc logframe/TOC and b) as formulated in the *TOC at Evaluation. The two results hierarchies should be presented as a two-column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.*	Final report: No changes required.	5
V. Key Findings **A. Strategic relevance:** This section should include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. An assessment of the complementarity of the project at design (or during inception/mobilisation[31]), with other interventions addressing the needs	Final report: Section provides a comprehensive assessment per sub-criteria. No revisions needed	6

[30] During the Inception Phase of the evaluation process a *TOC at Evaluation Inception* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions), formal revisions and annual reports etc. During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.

[31] A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

of the same target groups should be included. Consider the extent to which all four elements have been addressed: v. Alignment to the UNEP Medium Term Strategy (MTS) and Programme of Work (POW) vi. Alignment to Donor/GEF Strategic Priorities vii. Relevance to Regional, Sub-regional and National Environmental Priorities viii. Complementarity with Existing Interventions		
B. Quality of Project Design To what extent are the strength and weaknesses of the project design effectively summarized?	Final report: Section presents an effective summary of each project's strength and weaknesses	5
C. Nature of the External Context For projects where this is appropriate, key external features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval[32]), and how they affected performance, should be described.	Final report: Clear and concise description of the existence of external features that could affect project performance were presented	5
D. Effectiveness **(i) Outputs and Project Outcomes:** How well does the report present a well-reasoned, complete and evidence-based assessment of the a) availability of outputs, and b) achievement of project outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention. The effects of the intervention on differentiated groups, including those with specific needs due to gender, vulnerability or marginalisation, should be discussed explicitly.	Final report: Section was improved by better structuring and presenting the feedback from interviews and questionnaires, organizing and strengthening the evaluation finding statements and narrative to support these.	6
(ii) Likelihood of Impact: How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact? How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed? Any unintended negative effects of the project should be discussed under Effectiveness, especially negative effects on disadvantaged groups.	Final report: The report presents a clear analysis of the likelihood of impact, based on the reconstructed ToC and its causal pathways of change (including drivers and assumptions)	5

[32] Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team.

E. Financial Management This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table. Consider how well the report addresses the following: • *Adherence* to UNEP's financial policies and procedures • *completeness* of financial information, including the actual project costs (total and per activity) and actual co-financing used • *communication* between financial and project management staff	Final report: Narrative and rating for last sub-criteria was added in the final report. And financial information was revised following consultations with the FMO and A/FMO.	5
F. Efficiency To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including: • Implications of delays and no cost extensions • Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe • Discussion of making use during project implementation of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. • The extent to which the management of the project minimised UNEP's environmental footprint.	Final report: The efficiency assessment is complete and presents clear supporting evidence for the rating. Minor adjustments made to enhance the section.	5
G. Monitoring and Reporting How well does the report assess: • Monitoring design and budgeting *(including SMART results with measurable indicators, resources for MTE/R etc.)* • Monitoring of project implementation *(including use of monitoring data for adaptive management)* • Project reporting *(e.g. PIMS and donor reports)*	Final report: Section was improved by presenting the evidence under the right sub-criteria and strengthening the narrative.	5
H. Sustainability How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved project outcomes including: • Socio-political Sustainability • Financial Sustainability • Institutional Sustainability	Final report: Sustainability section is well structured and presents a convincing analysis.	5
I. Factors Affecting Performance These factors are <u>not</u> discussed in stand-alone sections but are **integrated in criteria A-H as appropriate**. Note that these are described in the Evaluation Criteria Ratings Matrix. To what extent, and how well, does the evaluation report cover the following cross-cutting themes: • Preparation and readiness • Quality of project management and supervision[33]	Final report: The report addresses all criteria adequately. Ratings are consistent with the narrative presented.	6

[33] In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UNEP.

• Stakeholder participation and co-operation • Responsiveness to human rights and gender equity • Environmental and social safeguards • Country ownership and driven-ness • Communication and public awareness		
VI. Conclusions and Recommendations **i. Quality of the conclusions:** The key strategic questions should be clearly and succinctly addressed within the conclusions section. It is expected that the conclusions will highlight the main strengths and weaknesses of the project and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.	Final report: Main conclusion statement and supporting narrative was enhanced with inputs from the EM, and cover the main messages of the evaluation.	6
ii) Quality and utility of the lessons: Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.	Final report: Lessons meet the Evaluation Office requirements	5
iii) Quality and utility of the recommendations: To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when. At least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions, should be given. Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.	Final report: The final report now includes an additional recommendation which was missing from the draft report. Recommendations cover the main issues identified by the evaluation.	6
VII. Report Structure and Presentation Quality		
i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?	Final report: The report adheres to the EOU guidelines and covers all the requested criteria. Annexes are complete.	6
ii) **Quality of writing and formatting:** Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?	Final report: The report is clearly written, format and language meets EOU guidelines and quality standards. Duplications were deleted or reduced with input by the EM.	**5**
OVERALL REPORT QUALITY RATING		**5.5**

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.