UN environment programme

Validated Terminal Review of the UNEP Project

'Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support' (PIMS ID 02010)

2018-2023

UN environment programme

UNEP Industry and Economy Division
Validation date: July 2024

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Front cover: Duncan Moore, Woman searching for items to recycle in Dandora, Kenya

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Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support
PIMS ID 521.1- 02010
Date04/2024

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This Terminal Review was prepared for UNEP International Environmental Technology Centre (IETC), Chemical and Waste Branch, Industry and Economy Division, by Ms. Chuanrong WANG.

The reviewer would like to express her gratitude to all persons met and interviewed, and who contributed to this review, as listed in Annex III.

The reviewer would like to thank the project team and in particular to Mr. Shunichi Honda, Programme Management Officer, and Ms. Junko Fujioka, Programme Assistant, for their contribution and collaboration throughout the review process. Sincere appreciation is also expressed to all the persons who took time to provide information and valuable inputs to the review, as well as comments to the draft report. The reviewer would also like to thank the Ministry of Environment and Tourism of Mongolia, the Ministry of Environment of Sri Lanka, and the Asia Foundation, for their support during the review consultant's site visit and survey activities.

The review consultant hopes that the findings, conclusions and recommendations will contribute to the successful finalization of the current project, formulation of a next phase and to the continuous improvement of similar projects in other countries and regions.

BRIEF EXTERNAL CONSULTANT(S) BIOGRAPHY

Ms. Chuanrong WANG is a Senior Expert with 20 years of experience in implementing donor-funded projects, specializing in Circular Economy, Environment, and Sustainable Consumption and Production. Her primary role involves facilitating policy dialogues and enhancing development and cooperation through various international programmes. She excels in the design, management, monitoring, and evaluation of projects, which includes proposal evaluations and audit of project contracts. She holds a BSc in Chemistry from China, a MSc in International Material Flow Management from Germany, and an Executive MBA from KEDGE Business School in France.

Review Team
Mr. Shunichi Honda, Programme Management Officer
Ms. Junko Fujioka - Programme Assistant

ABOUT THE REVIEW

Joint Review: No

Report Language(s): English.

Review Type: Terminal Review

Brief Description: This report is a management-led Terminal Review of a UNEP-IETC project implemented between May 2018 and June 2023. The project's overall development goal was to support national and local governments to improve waste management through knowledge, in-country technical & advisory support, and outreach and awareness raising. The review 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 review has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, Government of Japan, EU-Delegation Barbados, Global Environment Centre Foundation, GIZ-Mitigation Action Facility, International Climate Initiative, Norway, Petroleum Development Oman, Sida, UNDAF, UN-Habitat, and the relevant agencies of the project participating countries.

Key words: UNEP-IETC, Global Waste Management Outlook, Waste Management Strategy, Circular Economy, Capacity Building, Integrated Solid Waste Management

Primary data collection period:

02/2024-05/2024

Field mission dates:

18/03/2024-22/03/2024

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LIST OF ACRONYMS

CCET	IGES Centre Collaborating with UNEP on Environmental Technologies
CSIR	Council of Scientific & Industrial Research
EA	Expected Accomplishment
EST	environmentally sound technologies
EUD	EU Delegation
GEC	Environment Centre Foundation
GWMO	Global Waste Management Outlook
ICLEI	Local Governments for Sustainability
IETC	International Environmental Technology Centre
IGES	Institute for Global Environmental Strategies
IKI	International Climate Initiative of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
ISWA	International Solid Waste Association
LAC	Latin America and the Caribbean
LEAD	Leadership for Environment and Development
MEA	Multilateral Environmental Agreement
MTR	mid-term review
MTS	(UNEP's) Medium-term Strategy
PIMS	(UNEP's) Programme Information and Management System
PoW	(UNEP's) Programme of Work
PRC	(UNEP's) Project Review Committee
ProDoc	project document
ROs	(UNEP's) Regional Offices
RWMO	Regional Waste Management Outlook
SDG	Sustainable Development Goals
Sida	Swedish International Development Cooperation Agency
SIDS	Small Island Developing States
ToC	Theory of Change
ToR	Terms of Reference
TR	Terminal Review
UN	United Nations
UNEA	United Nation Environment Assembly
UNEP	United Nations Environment Programme
WWF	World Wildlife Fund

PROJECT IDENTIFICATION TABLE

Table 1: Project Identification Table

UNEP PIMS ID/SMA[1] ID:	02010/37506	Grant ID (if applicable):	
UNEP Management (Division/Branch/Unit):	Industry and Economy Division/ Chemical and Waste Branch/ International Environmental Technology Centre (IETC)		
Implementing Partners:	UNEP Regional Offices, the Global Environment Centre Foundation (GEC), the Institute for Global Environmental Strategies (IGES), the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET), International Solid Waste Association (ISWA), International Council for Local Environmental Initiatives (ICLEI), International Solar Alliance(ISA), Asia Foundation (Mongolia), Leadership for Environment and Development Nepal (LEAD Nepal), World Wildlife Fund (WWF) Bhutan, GRID-Arendal, Mongolia, national and city Governments		
Sources of Funding:	*Countries:* EU, Japan, Germany, Norway, Oman, Sweden	*Institution Name/Type:* EU-Delegation Barbados- European Development Fund /Other GEC/Foundation GIZ-Mitigation Action Facility/ Multilateral Fund GOJ Mercury/ Multilateral Fund IGES/NGO IKI/ Multilateral Fund Norway/ Multilateral Fund PDO/ Multilateral Fund Sida/ Multilateral Fund UNDAF/UN Body UN-Habitat/ UN Body	
Relevant SDG(s):	Goal 3 (target 3.9); Goal 11 (target 11.6); Goal 12 (targets 12.2, 12.4, and 12.5); Goal 13 (targets 13.1); Goal 14 (target 14.1), Goal 17 (targets 17.6, 17.7 and 17.16)		
MTS (all that apply):	i) Climate Change ii) Resilience to disasters and conflicts iii) Healthy and productive ecosystems iv) Environmental governance v) Chemicals, waste and air quality vi) Resource efficiency vii) Environment under review.	UNEP approval date:	28 May 2018
POW Output(s) number/reference *(applicable for projects approved pre-2022)*	(A) knowledge products on environmentally sound methods and good practices, (B) provision of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches, and (C) promotion and dissemination of environmentally sound waste management practices and methods.	POW Expected Accomplishment(s) number/reference *(applicable for projects approved pre-2022):*	EA (b): Polices and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the framework of relevant multilateral environmental agreements.
Sub-programme:	Chemicals, waste and air quality	Programme	

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[1] SMA refers to the ID provided by the Integrated Planning, Management and Reporting Solution (IPMR) system, which was introduced by UNEP in July 2023.

		Coordination Project:	
Expected start date:	January 2018	Actual start date:	28 May 2018
Planned completion date:	27 May 2022	Actual operational completion date:	30 June 2023
Planned total project budget[2] at approval:	Planned total project budget at approval: USD 22,232,293	Actual total expenditures reported as of [22 April 2024]:	USD 15,625,044
Planned Extra-budgetary Funds[3]:	0	Secured Extra-budgetary Funds:	*In-kind:* USD 872,052 (EF post) + USD 167,369 (Regional offices' regular budget post) *Co-financing in-kind contribution*: USD 478,177 (JPO post)
First disbursement:	November 2018	Planned date of financial closure:	30 June 2024
No. of formal project revisions:	2	Date of last approved project revision:	13 December 2022
No. of Steering Committee meetings:	0	Date of Last Steering Committee meeting:	N/A
Mid-term Review/ Evaluation *(planned date)*:	May 2020, 2 years after project start	Mid-term Review/ Evaluation (actual date):	10 August 2021
Terminal Evaluation *(planned date):*	October 2023	Terminal Evaluation (actual date):	12 February 2024
Coverage – Implementing Countries:	Antigua & Barbuda, Bahrain, Belize, Bhutan, Cambodia, Costa Rica, Chile, Dominica Republic, Guyana, Honduras, India, Indonesia, Jamaica, Kenya; Kyrgyzstan, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, South Africa, Sri Lanka, St. Lucia, St. Kitts & Navis, Tajikistan, Thailand, Uruguay, and Vietnam	Coverage – Implementing Region(s):	Global, Regional, National, and Local - Africa, Asia and Pacific, Europe, Latin America Caribbean, West Asia
	531.1 Global Waste Management Outlook (PIMS ID 1875): 2 April 2015 – 31 December 2018 *531.2* Secretariat Support to the Global Partnership on Waste Management (PIMS ID 1926): 15 September 2015 – 1 December 2019 *534.1* Delivering Integrated Waste Solutions at the National and Local Level (PIMS ID 1884): 29 April 2015 – 31 March 2019	Status of future project phases:	Integrated Solid Waste Management towards Zero Waste in October 2023

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[2] Total budget includes: Regular Budget, Environment Fund, Extra-Budgetary, including 'softly-earmarked' etc.
[3] Extra-budgetary funds include co-finance (cash/in-kind)

EXECUTIVE SUMMARY

Project background

1. The United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC) executed the project "521.1: Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support". This project was carried out in tandem with UN Environment's regional offices spanning Africa, Asia Pacific, Europe, Latin America and Caribbean, and West Asia, alongside several implementing partner organisations – CSIR South Africa, GEC, GRID-Arendal, ICLEI South Asia, IGES, ISA, ISWA, LEAD Nepal, SACEP, the Asia Foundation Mongolia, UNITAR, and WWF Bhutan.

2. The project served as a continuation of four preceding projects of UNEP-IETC: 531.1: Global Waste Management Outlook (GWMO); 531.2: Secretariat Support to the Global Partnership on Waste Management; 534.1: Delivering Integrated Waste Solutions at the National and Local Levels; and 532.1: Development and Deployment of Waste Management Techniques and Guidance.

3. Through its interlinked components—Knowledge Support in waste management, In-Country Technical and Advisory Support for developing waste management strategies, Piloting and Demonstrating environmentally sound technologies, and Outreach and Awareness Raising on sound waste management solutions—the project aims to empower local governments, engage diverse stakeholders including the private sector and local entrepreneurs, and promote the integration of waste-to-resources practices within waste management sectors. This holistic approach seeks to establish a more formalised and effective waste management sector, driving long-term sustainability and resilience in response to escalating waste challenges at local, regional, and global levels. The project endeavours to enhance environmental preservation, improve public health, and empower vulnerable populations.

4. Approved by UNEP in May 2018, with a total budget of USD 17,142,642 (of which USD 1,039,421 in kind contribution from UNEP, USD 478,177 co-financing in-kind contribution from government of Japan and Sweden), the project was operationally completed in June 2023. The project globally covered thirty countries in Africa, Asia and Pacific, Europe, Latin America Caribbean, and West Asia, in collaboration with UN/UNEP, international and regional initiatives and platforms.

This Review

5. This Terminal Review (TR) 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 main project partners. Therefore, the Review will identify lessons of operational relevance for future project formulation and implementation, especially contribute to the continuous improvement of similar projects in other countries and regions.

6. The TR was conducted coherently in line with UNEP' Evaluation Policy, Programme Manual and the ToR for the TR, assessed a pre-determined list of review criteria: 1) Strategic relevance, 2) Quality of the project design, 3) Nature of external context, 4) Effectiveness, 5) Financial management, 6) Efficiency, 7) Sustainability, 8) Factors affecting the project performance and cross-cutting issues. Each criterion was rated on a 6-levels scale. In addition, the Review also intends to address three strategic questions:

   - To what extent did the project's interventions effectively enhance waste management practices in the participating countries and regions, contributing to the advancement

of environmentally sound technologies and methods?

- How well did the project engage with national and local governments, stakeholders, and partners to ensure that the proposed waste management solutions were contextually appropriate and aligned with the needs and priorities of the respective regions?

- Considering the project's focus on knowledge support, technical advisory services, and awareness raising, how did the project contribute to the establishment of formal waste management sectors and the adoption of the waste-to-resources approach?

- What changes were made to adapt to the effects of COVID-19 and how did COVID-19 impact the project?

7. Quantitative and qualitative review methods were used, consisting of document reviews, key information interviews, a pilot project site visit to Mongolia, and survey of the project results in Sri Lanka.

Key findings

8. The project's thematic area, waste management, and its activities and results are highly relevant for all participating countries. It is in line with strategic objectives and priorities of UNEP Programme of Work 2018-2019 of Medium-Term Strategy 2018-2021, UNEP Programme of Work 2022-2023 of Medium-Term Strategy 2022-2025, and regional and national strategic priorities, as well as donor's strategic priorities.

9. According to the reconstructed Theory of Change in Terminal Review, the project, at end of implementation, milestones in six components, three Outputs, and Direct Outcome are achieved, the Outcome is partially achieved.

10. All the activities/milestones foreseen in the project results framework have been achieved. The Global Waste Management Outlook II (later launched under the title Global Waste Management Outlook 2024), four Regional Waste Management Outlooks (Africa, Latin America and the Caribbean, Small Island Developing States, West Asia), and an Electrical & Electronic Waste Outlook in West Asia have been launched. Twenty-one national and/or city-level waste management strategies/action plans have been prepared. Three pilot projects were carried out – on composting and biodegrading organic waste technologies, along with other demonstration activities on identifying, applying and innovating contextually appropriate environmentally sound technologies in country and local level, which especially focused on e-Waste, plastic, and municipal waste management. Massive sound waste management guidelines, knowledge products, capacity building materials were prepared, accessible at UNEP-IETC and the project partner's websites. They were broadly disseminated via the project activities, project partners' networks, UN/UNEP initiatives and platforms, and public outreach channels. Training courses on sound waste management were conducted in Latin America and the Caribbean, Africa and Asia-Pacific regions.

11. Direct Outcome - Increased use of available products and knowledge in waste management by project stakeholders for policy making and implementation, and research in project countries, using UNEP guidance – is assessed as achieved. Stakeholders have already reported referring to project knowledge products for various purposes, such as preparing waste management strategies, conducting research, promoting circularity, and advancing towards carbon neutrality with integrated waste management.

12. Project Outcome - Policies and practices and legal frameworks for waste prevention and sound management developed and implemented by stakeholders in project countries - is assessed as partially achieved. The country strategies and regulations implementations have been initiated or partly mobilised, largely depending on the government funding

availability. Pilot projects and demonstration initiatives on environmentally sound technologies, including waste to resources and regulating informal waste sector, were implemented, and upscaled/replicated in some countries and regions.

13. Project impact - Significantly reduced negative impacts from waste on environmental and human health - is assessed as likely. The drivers and assumptions from Project Outcome to Intermediate State (Environmentally sound management of waste based on waste as resource approach prioritizing waste prevention, segregation for reuse and recycling, treatment and disposal, in project and new countries) are partially in place and partially hold, in the fact that the legal frameworks and infrastructure, funding available by the governments /private sector/donors for upscaling of implementation and awareness-raising and capacity building activities, are not fully ensured in some countries.

14. UNEP-IETC's strategic partnerships have facilitated strong collaboration with several partners for project implementation. These partnerships, already functional within the framework of previous projects, have enabled implementing partners to be well-acquainted with UNEP-IETC's work, the thematic area, and the implementation requirements, significantly contributing to the expected achievements.

15. The COVID-19 pandemic has affected decision making and implementation of activities. Face-to-face meetings or workshops, including coordination meetings for the GWMO II could not take place due to the COVID-19 pandemic. The West Asia Waste Management Outlook was launched online due to the same reason. The shift to online format has affected project expenditure to some extent. It is an unintended positive effect, in that the carbon footprint of UNEP was reduced. At the same time, it has made coordinating activities and decision-making challenging, requiring more time. The preparation of GWMO II was adversely affected by the pandemic; similarly, the initiation of pilot projects was delayed and limited, and it took longer than initially anticipated to achieve their envisaged results.

16. Project commenced in May 2018. COVID-19 pandemic was one of the primary reasons for two project extensions. The project extension also resulted from the extra available funding for additional activities. After over 61 months implementation, project expenditure is at 85% of the planned secured funds. All foreseen activities, including new components from the extensions, have been completed. According to UNEP's guidance, the TR assesses project implementation as highly efficient.

17. Human resources at the UNEP-IETC were reduced considerably, from five professional staff at the time of project formulation to one professional staff, excluding the JPOs, at the time of the MTR, which is far from the critical mass of staff required for the implementation of such a global project, with several implementing partners and stakeholders and different types of activities. This situation was improved in the post - MTR period by engaging external expertise and UNEP internal human resources. This didn't have any adverse effect on project implementation that was carried out by the collaborating partner organisations, which have been involved already in the UNEP/IETC predecessor projects. Project reporting was done in the time intervals as foreseen and required. Information and knowledge management, as well as quality of reporting, did not fully meet its intended function, leading to a lack of comprehensive tracking of progress and changes. The reduction in staff potentially contributed to these areas for enhancement.

18. Promotional activities have been carried out; nevertheless, communication is continuous efforts to ensure the project sustainability. The accessible knowledge products and training courses are considered to have high potential for expansion to more countries and regions via ongoing UNEP initiatives, platforms, partner projects, and UNEP-IETC following projects.

19. Gender and vulnerable groups have been adequately addressed throughout the project. For example, the GWMO II and RWMOs have incorporated a gender focus, and a Gender and Waste Nexus report was prepared with information related to gender and waste management from Bhutan, Mongolia, and Nepal. The developed waste management strategies and guidelines have mainstreamed the concerns of gender and vulnerable groups. The project significantly contributed to knowledge on the relationship between gender and waste in specific waste streams, i.e. plastic, e-Waste, and medical waste (including that caused by COVID-19). It also emphasised strengthening women's participation for more efficient and effective waste management operations. Gender-disaggregated data collection should be better addressed in project reporting.

Conclusions

20. The project implementation exemplified efficient adaptation to challenges, substantial progress in achieving milestones, strong thematic relevance, and collaborative partnerships. The influence of the COVID-19 pandemic was navigated adeptly, yielding positive outcomes in addition to challenges. The project's strategic alignment, continuity, and contributions to waste management were evident, underscoring its resonance with UNEP's objectives and global priorities.

21. Based on the findings from this review, the project demonstrates performance at the **'Satisfactory'** level (a table of ratings against all review criteria is found in the [Conclusions Section](#), below). The project has demonstrated strong performance in the areas of Strategic Relevance, Financial management, Efficiency, Factors Affecting Performance. The area that would benefit from further attention is Sustainability.

Lessons Learned

22. Lesson 1: A critical mass of staff is necessary to carry out adequate project monitoring, reporting, information and knowledge management, as well as communication activities (besides project implementation). During the project, the shortage of staff posed significant challenges. However, these were mitigated by engaging external experts and leveraging internal UNEP resources. Collaborating partner organizations also played a crucial role in maintaining project progress. This approach highlights the importance of strategic resource allocation and the ability to adapt to staffing limitations to ensure successful project outcomes.

23. Lesson 2: Strategic partnerships are conducive to well-functioning project implementation. Strategic partnerships are essential because they bring together diverse expertise, resources, and networks that enhance project efficiency and effectiveness. In this project, partnerships with regional offices and implementing organisations facilitated localised insights, increased capacity for on-ground activities, and ensured broader dissemination and adoption of project outputs. These collaborations enabled the project to navigate challenges more effectively and achieve its objectives by leveraging the strengths of each partner.

24. Lesson 3: Mainstreaming gender and human rights for vulnerable groups within advisory and technical support significantly provides best practices on addressing these issues in policy recommendations, creation, and implementation. By integrating gender and human rights considerations, the project developed inclusive policies and practices that addressed the specific needs of vulnerable groups. For instance, incorporating gender-sensitive data and perspectives led to more equitable waste management strategies. This approach not only ensured that the policies were fair and comprehensive but also set a precedent for other projects to follow, demonstrating that inclusive planning results in more effective and sustainable outcomes.

Recommendations

25. <u>Recommendation 1:</u> UNEP-IETC should be strategically strengthened as the 'Centre of Excellence for Waste Management' with human resources to support Project Design, Funding Partnerships, Project Implementation, Monitoring and Reporting, and Knowledge Management.

26. <u>Recommendation 2:</u> Implementation engagement plan and post-project implementation plan shall be considered in the future project design, along with the identification of partner countries and cities.

27. <u>Recommendation 3:</u> Project design criteria and monitoring schemes should be aligned with and compatible with UNEP reporting requirements, also updated with an agile approach in project implementation.

28. <u>Recommendation 4:</u> An advanced funding strategy should be developed in collaboration with partners and implementing cooperation organisations. An advanced funding strategy refers to a comprehensive plan that identifies diverse funding sources, secures financial commitments, and aligns funding opportunities with project goals. This strategy should include securing multi-year funding, leveraging co-financing opportunities, and exploring innovative financing mechanisms such as public-private partnerships and grants. Collaborating with partners and implementing organisations will ensure a diversified and sustainable financial base to support long-term project objectives and mitigate funding risks.

29. <u>Recommendation 5:</u> The project monitoring plan shall be more applicable, including the aggregated data related to donor, gender, region, and nature of the activities, as well as concrete approach for establishment of the data.

30. <u>Recommendation 6:</u> A project steering committee or a management body shall be established for regularly governing the project implementation to facilitate communication with donors and partners, provide the decision for project.

Validation

The report has been subject to an independent validation exercise performed by UNEP's Evaluation Office. The performance ratings for the 'Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support' (PIMS ID 02010) project, set out in the Conclusions and Recommendations section, have been adjusted as a result. The overall project performance is validated at the **'Satisfactory'** level. Moreover, the Evaluation Office has found the overall quality of the report to be **'Moderately Satisfactory'** (see Annex XI).

I.   INTRODUCTION

31. The United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC) executed the project "521.1: Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support". This initiative was carried out in in tandem with UN Environment's regional offices spanning Africa, Asia and the Pacific, Europe, Latin America and Caribbean, and West Asia, alongside several implementing partner organisations[4.] Approved by UNEP on May 28, 2018, the project was operationally completed on June 30, 2023. The project served as a continuation of UNEP-IETC four preceding projects: 531.1: Global Waste Management Outlook (GWMO); 531.2: Secretariat Support to the Global Partnership on Waste Management; 534.1: Delivering Integrated Waste Solutions at the National and Local Levels; and 532.1: Development and Deployment of Waste Management Techniques and Guidance.

32. Project is in alignment with the UNEP Programme of Work (POW) 2018-2019 of Medium Term Strategy (MTS) 2018-2021 in seven priority areas: i) Climate Change; ii) Resilience to disasters and conflicts; iii) Healthy and productive ecosystems; iv) Environmental governance; v) Chemicals, waste and air quality; vi) Resource efficiency; vii) Environment, as well as outcomes[5] of POW 2022-2023 in three strategic objectives of the MTS 2022-2025 on Climate stability, Living in harmony with nature, and Towards a pollution-free planet.

33. This project Terminal Review (TR) is undertaken at operational 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 TR serves 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 main project partners. Thus, the Review will identify lessons of operational relevance for the formulation and implementation of future projects.

34. A project Mid-Term Review (MTR) was conducted between January and August 2021. This TR covers all key results achieved from the project's actual start date (28 May 2018) until its end date[6] (30 June 2023), with a total ensured budget of USD 17,142,642.

35. The UNEP-IETC Programme Management Officer collaborates with the Review Consultant to identify target audiences and determine the most effective methods for communicating the key findings and lessons from the review. Both draft and final versions of the Main Review Report are disseminated to key stakeholders by the Programme Management Officer, and a copy of the final version is submitted to the UNEP Evaluation Office. The Evaluation Office assessed the quality of the Review Report using a standard UNEP template.

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[4] including Asia Foundation Mongolia, CSIR South Africa, GEC, GRID-Arendal, ICLEI South Asia, IGES, ISWA, LEAD Nepal, SACEP, and WWF Bhutan.
[5] 2025 outcomes: 3A) Human health and environmental outcomes are optimised through enhanced capacity and leadership in the sound management of chemicals and waste. 3B) Waste management is improved, including through circular processes, safe recovery of secondary raw materials and progressive reduction of open burning and dump sites.3C) Releases of pollutants to air, water, soil and the ocean are reduced.
[6] As per the Project Operational Completion Report, the project operational completion was signed off on 28 December 2023.

II.   REVIEW METHODS

36. The ToR of TR outlined the TR framework and expected outputs, which aims to provide conclusions on the level of the project's performance, how the UNEP-IETC/project meets accountability requirements, and summarise its results and lessons learned to be shared among UNEP and main project partners. The TR also is expected to offer recommendations for future project formulation and implementation, and further identified the project's contributions to environmentally sound waste management.

37. The Review Consultant possesses experiences in evaluating UNEP-implemented and other international donor-funded projects concerning chemical and waste management, circular economy, and sustainable consumption and production across a global geographical scope. The Review Consultant is familiar with the review methodology and the technical context of this project's implementation scope and has no conflicts of interest in undertaking this TR assignment.

38. The project underwent a MTR from January to August 2021. Consequently, the TR focused specifically on the remaining phase of project implementation until operational closure in June 2023. This focus included a thorough review of the modifications made to the project's design and implementation, following the recommendations provided by the MTR.

39. Due to the project's complex review scope, vast engagement of stakeholders, and global outreach, the TR methodological approach includes Desk Reviews, Key Information (KI) Interviews, Field Visits, and Surveys. During field visits, methods such as observations and semi-structured interviews were employed. These approaches combined both qualitative and quantitative data collection techniques, consulting multiple data sources and using triangulation to strengthen potential linkages and the accuracy of the data.

40. Throughout this TR process and in the compilation of the TR Main Report, the TR Consultant made efforts to represent the views of both mainstream and more marginalised groups. Data was collected with respect for ethics and human rights issues. All pictures were taken, and other data gathered after prior informed consent from people, all discussions remained anonymous, and all information was collected according to the UN Standards of Conduct.

41. The key principles were followed in the review process:

   - Judgments and findings are impartial, accurate, and review findings and judgements will be based on sound evidence based.

   - Data is validated and triangulated from different sources to strengthen the reliability of findings.

   - The data collection process shall avoid and mitigate biases, including sampling bias, measurement bias, and data collection bias, ensuring thorough consideration of gender sensitivities and implications, and the inclusion of marginalised groups.

   - The focus is on forward-looking recommendations, based on the lessons learned from the review.

42. The TR was conducted from 15 February to 11 June 2024, under the supervision of UNEP-IETC Programme Management Officer, Mr. Shunichi Honda, supported by UNEP-IETC Programme Assistant Ms. Junko Fujioka.

43. The TR proceeded in three phases:

   - Inception Phase (February 9 – April 8, 2024): review documents, conduct interviews, visit project sites in Mongolia, and conduct surveys related to the project results in Sri Lanka.

- Draft TR Main Review Report Phase (April 8 – May 6, 2024): analyse information using analytical triangulation approaches to develop findings and draw conclusions.

- Finalise TR Main Review Report Phase (May 6 – June 11, 2024): consolidate the Main Review Report based on the feedback received.

44. The TR was conducted coherently in line with UNEP' Evaluation Policy, Programme Manual and the ToR for the TR, assessed a pre-determined list of review criteria: 1) Strategic relevance, 2) Quality of the project design, 3) Nature of external context, 4) Effectiveness, 5) Financial management, 6) Efficiency, 7) Sustainability, 8) Factors affecting the project performance and cross-cutting issues. Each criterion was rated on a 6-levels scale. In addition, the Review also intends to address three strategic questions (SQs):

- To what extent did the project's interventions effectively enhance waste management practices in the participating countries and regions, contributing to the advancement of environmentally sound technologies and methods?

- How well did the project engage with national and local governments, stakeholders, and partners to ensure that the proposed waste management solutions were contextually appropriate and aligned with the needs and priorities of the respective regions?

- Considering the project's focus on knowledge support, technical advisory services, and awareness raising, how did the project contribute to the establishment of formal waste management sectors and the adoption of the waste-to-resources approach?

- What changes were made to adapt to the effects of COVID-19 and how did COVID-19 impact the project?

45. Based on the review questions, a detailed Review Framework/Matrix (see Annex II) was developed, comprising indicators, means of verification, and data resources.

Document review

46. The reviewer consulted various documents, including results-based documents such as project implementation documents (project design, periodic reports by both UNEP-IETC and implementation partners/donors), meeting reports, monitoring files, funding agreements (SSFA, PCA), financial reports, and deliverables. Additionally, strategic UNEP documents (MTSs, POWs) and UNEA documents (resolutions, etc.) were reviewed. The reviewed documents are listed in Annex IV.

Key Information Interviews

47. The KI interviews were conducted in a semi-structured manner with Guiding Questions[7], covering topics and questions derived from the review criteria and SQs, the document review, and discussions with UNEP-IETC staff. All interviews were conducted remotely via MS TEAMS.

48. The review attempted to ensure that the interviewees represented main stakeholders and implementing partners involved in project implementation. It also aimed to cover various project outputs and included interviewees who were in positions of authority, ensuring their responses added value to the review.

49. The selection of the interviewees was discussed with UNEP-IETC Programme Management Officer. They are stakeholder representatives from implementing institution, implementing partner organisations, as well as donor institutions which included staff and/or representatives of UNEP-IETC staff, UNEP ROs, ICLEI South Asia,

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[7] Available in TR Inception Report

ISWA, IGES, GEC, LEAD Nepal, WWF Bhutan, Asia Foundation Mongolia. Among 37 invited, altogether 27 persons (66% are women) participated in the interview, some provided additional information via emails. The interviewees represented the organisations globally, including Africa, Asia-Pacific, Europe and Latin America and the Caribbean regions. A list of people consulted and interviewed is provided in [Annex III]. The donor did not respond to the interview invitation, so there was no opportunity to collect their views on the project. Some implementation partner reports to donors (e.g. IKI) are available to make up this information gap to a certain degree.

Site visit

50. A review mission was conducted in Mongolia from 18 to 22 March 2024. The mission, hosted by the project implementation partner TAF Mongolia, followed a mission ToR agreed upon by the UNEP-IETC Programme Management Officer. This ToR included guiding questions for meetings with project stakeholders in Mongolia. Stakeholders included government officials responsible for construction of national waste management policy(Regulation on Municipal Solid Waste Cleaning, Segregation, Collection, Transportation, Recycling, Recovering, and Disposal), instruments (Eco-Tax), database (E-Form Based Waste Inventory), as well as organisation of capacity building activities; consultants for studies/reports and development of the ESTs; local waste management facilities operator; and users/beneficiaries of the ETS built upon the project guidelines and support. The detailed itinerary and the list of meeting/visit participants are provided in [Annex V].

51. During the site visits, the research methods employed included semi-structured interviews and direct observations. These approaches allowed the reviewer to gather qualitative data by engaging directly with key stakeholders, observing project activities in action, and assessing the on-ground implementation of the project.

52. Language translation during the site visit was provided by TAF staff. The discussions, focus group meetings, and observations yielded concrete evidence of project implementation effectiveness in several key areas: cooperation and partnerships, application of studies and guidelines, changes in the informal waste sectors, protection of women's rights, upscaling and dissemination of best practices, and sustainability likelihood of project impact in Ulaanbaatar/Mongolia.

Survey

53. A self-administered questionnaire[8] was prepared for key project stakeholders associated with the project activities covered in Sri Lanka, primarily targeting the national government (Ministry of Environment of Sri Lanka) and Negombo City Waste Management authorities. The e-survey aimed to gather feedback of specific nature regarding the assessment of the project's long-term impact and sustainability of outcomes of the developed national and city waste management strategies and action plan, as well as the locally built-up waste management capacities via project support. The sample size and sampling approach utilised for the questionnaire were systematically determined to ensure representativeness and reliability of the data collected, with the support from Ministry of Environment of Sri Lanka.

54. All review tools (review framework/matrix, interview guiding questions and survey questionnaire) were presented to and approved by the UNEP Programme Management Officer prior to use and were piloted and revised according to the best practice in the review.

55. According to the UNEP TR guidelines, the TR Consultant reviewed the Theory of Change

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[8] Available in TR Inception Report

(ToC) in the Project Document (ProDoc) and it in the MTR report. Based on the initial information and findings from the TR inception phase, the TR consultant updated the ToC in the TR Inception Report and consolidated it in the main review phase. This updated ToC is provided at <u>Section IV– Theory of Change at Review.</u>

Limitations

56. Since some project milestones were achieved before the middle point of project implementation or one year prior to the project completion on 30 June 2023, certain stakeholders were no longer directly accessible for interviews or surveys at the time of the TR. Consequently, they were unable to provide key information using the planned methods. The Consultant attempted to mitigate this by triangulating data with available data resources.

III.   THE PROJECT

A.   Context

57. The global rise in population and urbanization is expected to significantly increase the per capita consumption of goods and services, leading to an unprecedented surge in waste generation, from solid urban waste to hazardous materials, exacerbating environmental and health risks. Developing countries, in particular, face challenges due to inadequate waste management infrastructure, lack of effective policies, and insufficient awareness of waste as a recoverable resource. This situation results in severe environmental degradation, public health issues, and loss of economic opportunities from potential resource recovery.

58. The project, "Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and In-Country Technical and Advisory Support," was designed to address these pressing challenges. It was built on the UNEP-IETC previous initiatives, which have laid a solid foundation in waste management practices. This project aimed to enhance these efforts by integrating comprehensive knowledge support, direct technical and advisory assistance, and extensive outreach and awareness campaigns.

59. The project's approach was rooted in the waste hierarchy principles—emphasizing waste prevention, reduction through reuse and recycling, and ensuring proper disposal. By improving waste management practices, the project sought to initiate a cascade of positive impacts, from reducing environmental pollution to enhancing public health, particularly focusing on the well-being of women and vulnerable communities and contributing to poverty alleviation.

60. Through its interlinked components—Knowledge Support in waste management, In-Country Technical and Advisory Support for developing waste management strategies, Piloting and Demonstrating environmentally sound technologies, and Outreach and Awareness Raising on sound waste management solutions—the project aimed to empower local governments, engage diverse stakeholders including the private sector and local entrepreneurs, and promote a shift from viewing waste as a burden to seeing it as a resource. This holistic approach sought to establish a more formalised and effective waste management sector, driving long-term sustainability and resilience in response to escalating waste challenges at local, regional, and global levels. The project endeavoured to enhance environmental preservation, improve public health, and empower vulnerable populations.

61. The project is a global project covering 30 countries[9] in Africa, Asia and Pacific, Europe, Latin America Caribbean, and West Asia.

62. The project implementation was affected by external challenges. The implementation of the project coincided with the COVID-19 pandemic, which was a primary cause of delays and necessitated operational changes. For instance, project adopted multifaceted approaches to mitigate COVID-19 caused negativity: capacity-building activities were shifted to virtual formats, flexible deadlines and schedules were applied responding to the prolonged decision-making processes. Additionally, the project was affected by organisational staff turnover and government restructuring[10], in some cases

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[9] Antigua & Barbuda, Bahrain, Belize, Bhutan, Cambodia, Costa Rica, Chile, Dominica Republic, Guyana, Honduras, India, Indonesia, Jamaica, Kenya; Kyrgyzstan, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, South Africa, Sri Lanka, St. Lucia, St. Kitts & Navis, Tajikistan, Thailand, Uruguay, and Vietnam. They are covered by project through the UNEP ROs, Partners and other UN/UNEP initiatives, and network, for instance, SEA Circular, SPREP and COBSEA, University Consortium, etc.

[10] E.g. One country reported four times change for the head of the Ministry of Environment during 4 years project period.

compromised the waste management strategy implementation.

B.   Result framework

63. The project originally aimed to "support national and local governments to improve waste management through knowledge, in-country technical & advisory support, and outreach and awareness raising" via the achievements of eight Activities across three main Components (A, B, C). Project Revision No.1 on 27 December 2021 added three Components (D, E, F).

64. Based on the ToC at TR, Table 1 below provides an overview of the results framework, which includes the project supported MTS Expected Accomplishment (EA) and POW Outputs, Project Outcome, Direct Outcome, Outputs, and the corresponding Activities. This framework has been updated to reflect the redefined causal paths from the activities to the Outputs identified during the MTR and the TR phase. Compared to the project design in ProDoc, the activity attributions to Outputs have been expanded, and their interlinks to the different Outputs are detailed further in Section V. D. Availability of Outputs.

65. During the review, relevant documents associated with the results were provided by UNEP-IETC, executing partners, participating governments, and consultants. Additional information was sourced from interviews, e-surveys, and public resources.

Table 2: List of Project Outputs and Outcomes

Expected Accomplishment (UNEP 2018-2021 MTS)	EA (b): Policies and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the frameworks of relevant multilateral environment agreements
POW Outputs (POW 2018-2019)	i) Advisory and support services to facilitate policymaking and strategy development towards sound integrated waste management ii)Technical guidance on best available techniques, good practices, best environmental practices and risk reduction developed with the academic sector for the sound management of waste iii) Support to countries to access scientific and technical knowledge necessary to implement and enforce sound management of waste, in accordance with waste-related multilateral environmental agreements
Overall objective	To support national and local governments to improve waste management through knowledge support, in-country technical & advisory support and awareness-raising
Project Outcome	Policies and practices for waste prevention and sound management developed or implemented in countries – using UN Environment guidance
Direct Outcome	Increased use of available products and knowledge in waste management by stakeholders for policy making and implementation, and research in project countries
Component A	Knowledge products on environmentally sound methods and good practices
Component B	Provision of in-country technical and advisory services to design and implement environmentally sound technologies and approaches
Component C	Promote environmentally sound waste management and waste prevention through education & awareness raising
Component D	Waste and Climate project in Mongolia, Bhutan and Nepal (International Climate Initiative (IKI))
Component E	SEA circular project (Swedish International Development Agency (SIDA))
Component F	Sustainable waste management in the Caribbean (European Development Fund)
Activity 1	Develop Global Waste Management Outlook II
Activity 2	Develop regional waste management outlooks
Activity 3	Develop tools, guideline, or methodologies
Activity 4	Support national or local governments in preparing strategies, action plans, or relevant instruments on environmentally sound waste management
Activity 5	Support development and implementation of Pilot demonstration on environmentally sound waste management
Activity 6	Disseminate knowledge on environmentally sound waste management

Activity 7	Implement pilot certificate courses on environmentally sound waste management in 3 regions
Activity 8	Convene dialogues on environmentally sound waste management.

C.   Stakeholders

66. The primary Executing Agency of the project is UNEP-IETC. The main project's implementation Executing Partners include Institute for Global Environmental Strategies (IGES), Global Environmental Foundation Centre (GEC) and International Solid Waste Association (ISWA). Additionally, other UNEP Regional Offices (ROs), as well as other regional and/or national organisations (CSIR South Africa, GRID-Arendal, ICLEI South Asia, ISA, LEAD Nepal, SACEP, the Asia Foundation Mongolia, UNITAR, and WWF Bhutan) also played key roles in the project's implementation, alongside national and local governments.

67. The Funding Partners, such as Government of Japan (GoJ, core funder), and EU-Delegation Barbados(Europe Development Fund), Deutsche Gesellschaft für Internationale Zusammenarbeit(GIZ)-Mitigation Action Facility, GEC; IGES, International Climate Initiative(IKI), Norway, Petroleum Development Oman (PDO), Sida, UNDAF, and UN-Habitat, facilitated the project and helped to steer its implementation through regular reporting and feedback and/or taking part in a planned Steering Committee.

68. Partnership with SACEP, COBSEA Secretariat also created synergies in project activities, which broadened the direct outcomes of the project by involving more countries in the waste management initiatives. At the same time, it enabled financial and implementation efficiency through their existing expertise and networks.

69. Other stakeholders who have high interest in the project, but less influence on project implementation, are academia, local communities (including beneficiary groups – citizens), NGOs; the latter greatly supported some activities of project implementation such as awareness-raising in local communities.

70. Table 3 below provides an overview of all stakeholders, updated with information additionally received during the review, their potential roles and responsibilities in project implementation, and their expected changes in behaviour after project implementation.

Table 3: Overview of Stakeholder Groups

Stakeholders	The power they hold over the project results/implementation and the level of interest (strength & weakness)	Participation in project design and how?	Potential roles & responsibilities in project implementation	Changes in their behaviour expected through the implementation of the project
Type A: High power / high interest = Key player				
UNEP-IETC		Yes	Main Executing Agency of the project; coordination of activities with project Executing Partner(s); Programme Management Officer from the IETC.	Continued engagement in waste management in other countries.
UNEP Regional Offices/SACEP, COBSEA/		Yes	Cooperation with all external project partners for all components of the project – GWMO II, RWMOs, national and local waste management strategies; courses based on university curricula and communication and outreach.	Continued engagement in waste management projects. Support development and dissemination of Outlooks 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.

Stakeholders	The power they hold over the project results/implementation and the level of interest (strength & weakness)	Participation in project design and how?	Potential roles & responsibilities in project implementation	Changes in their behaviour expected through the implementation of the project
National and local governments	<u>Strength:</u> Policy and strategy development and implementation. <u>Weakness:</u> Lack of knowledge of waste management	Partly Yes	Work with project teams and develop national / local strategies and action plan. Ensure data collection and reporting.	Strengthened capacity for the implementation of sound waste management. New improved waste policies, rules and regulations. Upscaling and replication of sound management of waste projects. Equipped Institutional and sustainability on waste management
Service providers (including private sector)	<u>Strength:</u> Development and implementation of waste management systems. <u>Weakness:</u> Lack of funds	No	Provide data for the development of baseline. Support the development of strategies and policies, and cooperate in the implementation of the project through takeback systems and recycling.	Improved technical capacity in infrastructure development. Enhanced participation of the private sector involvement in waste management.
ISWA	Biggest association on waste management with strong programmes and information sharing activities.	Yes	Provide technical and political information of waste management Lead project partner for GWMO II.	Developed and disseminated GWMO II through its members and network. Implementation of waste projects in other countries.
Donor Partners	Facilitate the project operation	Partly Yes	Provide the budget, guidelines, monitoring for different project activities.	Ensured the donor objectives, and sustainable partnership with UNEP for long term cooperation on waste management.
IGES	<u>Strength:</u> technical expertise on waste management <u>Weakness:</u> more on the regional level	Yes	Project partner, implementation in some countries, prepare national and local waste management strategies.	Support in preparing regional national and local waste management strategies, action plans, roadmaps, guidelines in other countries. Support in the awareness and capacity building activities.
GEC	<u>Strength:</u> stakeholder engagement and communication <u>Weakness:</u> local presence	Yes	Project partner, for preparing outreach products.	Produced various format communication materials The awareness and skills were equipped and dismissed to wider users and audience.
Type B: *High power/ low interest over the project =Meet their needs*				
Civil society organisations	<u>Strength:</u> Strong connection and network with the community and understanding of their needs <u>Weakness:</u> Limited ability to translate national / local policies at community level	N/A	Provide inputs to the development of waste strategies and policies. Cooperate in implementing the projects, particularly awareness raising.	Enhanced awareness and commitment in waste management based on a life-cycle approach.
Type C: *Low power/ high interest over the project= Show consideration*				
WWF Bhutan	<u>Strength:</u> Global expertise and local presence <u>Weakness:</u> limited advocacy power	Yes	Project partner in Bhutan – national and local waste management strategy, women nexus.	Support in Implementation of waste projects, and the awareness and capacity building activities.

Stakeholders	The power they hold over the project results/implementation and the level of interest (strength & weakness)	Participation in project design and how?	Potential roles & responsibilities in project implementation	Changes in their behaviour expected through the implementation of the project
The Asia Foundation Mongolia	Strength: Previous cooperation with UNEP and local governments/stakeholders on waste management locally Weakness: Funding-oriented	Yes	Project partner in Mongolia – waste management strategies, identification of environmentally sound technologies (ESTs), awareness raising events.	Support in Implementation of waste management pilot projects, studies for waste data management and policy advocacy, the awareness and capacity building activities.
LEAD Nepal	Strength: Local waste management network Weakness: Small size organisation	Yes	Project partner in Nepal – disaster waste management strategy and action plan, pilot demonstration of disaster waste recycling unit, communication and outreach activities.	Support in Implementation of waste management pilot projects, the awareness and capacity building activities.
GRID-Arendal	Strength: research on waste management	Yes	Project partner – gender and waste assessment report	
Informal sector	Strength: Recycling and recovery of resources from wastes Weakness: Lack of knowledge on environmental pollution & safety	N/A	Cooperate in the implementation of sound waste management system, take-back system and proper waste recycling.	Improved working conditions and reduced health risks.
Academia, Think tanks	Strength: Knowledge of waste management in the local context Weakness: Translating the knowledge into policy development and practical implementation	N/A	Provide inputs into the training materials and assist in the training programme and disseminating the knowledge products.	Improved knowledge on waste management and better focused training programmes.
Communities, NGOs	Strength: Knowledge of waste specific to local context Weakness: Lack of sustainability of interventions results in discontinuation	No	Cooperate in implementing the projects through the segregation, collection & take-back system and recycling. Participate in the public awareness campaigns.	Enhanced knowledge on the reduction, segregation, and recycling of potentially hazardous wastes. Translate national / local policies at community level.
ICLEI	Strength: networks on cities, governments	Yes	Project partner, implementation in India – city-level waste management project	Support in preparing local waste management strategies in other cities and/or countries.
Women, Vulnerable/indigenous groups		No	Support in awareness raising activities.	Translate national / local policies at community level. Continuation of awareness-raising activities.
Type D: *Low power /low interest over the project= Least important*				
Waste generators	Strength: Close to the waste segregation and recycling Weakness: Lack of knowledge of waste minimization and waste as a resource	N/A	Contribute to the public awareness campaigns and cooperate in the project implementation.	Enhanced knowledge on the reduction, segregation, and recycling of potentially hazardous e-Wastes.
Communities	Strength: Knowledge of waste specific to local context Weakness: Lack of	N/A	Cooperate in implementing the projects through the segregation, collection & take-back system and	Enhanced knowledge on the reduction, segregation, and recycling of potentially hazardous wastes.

Stakeholders	The power they hold over the project results/implementation and the level of interest (strength & weakness)	Participation in project design and how?	Potential roles & responsibilities in project implementation	Changes in their behaviour expected through the implementation of the project
	sustainability of interventions results in discontinuation		recycling. Participate in the public awareness campaigns.	
Waste generators (including private sector)	Strength: Close to the waste segregation and recycling. Weakness: Lack of knowledge of waste minimization and waste as a resource.	No	Contribute to the public awareness campaigns and cooperate in the project implementation.	Enhanced knowledge on the reduction, segregation, and recycling of potentially hazardous e-Wastes. Waste minimization and segregation.

D.   Project implementation structure and partners

Planned implementation structure:

71. According to the project implementation structure illustrated and explained in the project document, the project was planned to be "managed by the UNEP-IETC, in close cooperation with the UNEP ROs for Africa, Asia-Pacific, Europe, Latin America and the Caribbean and West Asia". This cooperation of the UNEP-IETC with the UNEP ROs was to be supported by various other international, regional and/or national partner organisations and have focal points (FPs) in the countries of implementation. The UNEP-IETC Programme Management Officer (PM) was to be supported by three Programme Officers and a Communications Officer. The whole set-up was to be overseen by a Project Steering Committee (PSC), consisting of the UNEP-IETC Director, Regional Directors, Head of Chemicals and Health Branch of UNEP Economy Division, and Chemical, Waste and Air Quality Coordinator; as well as by the International Advisory Board (IAB) of the UNEP-IETC. The planned implementation structure is illustrated in the diagram below.

Figure 1: Organigram of the Project with key project key stakeholders in design
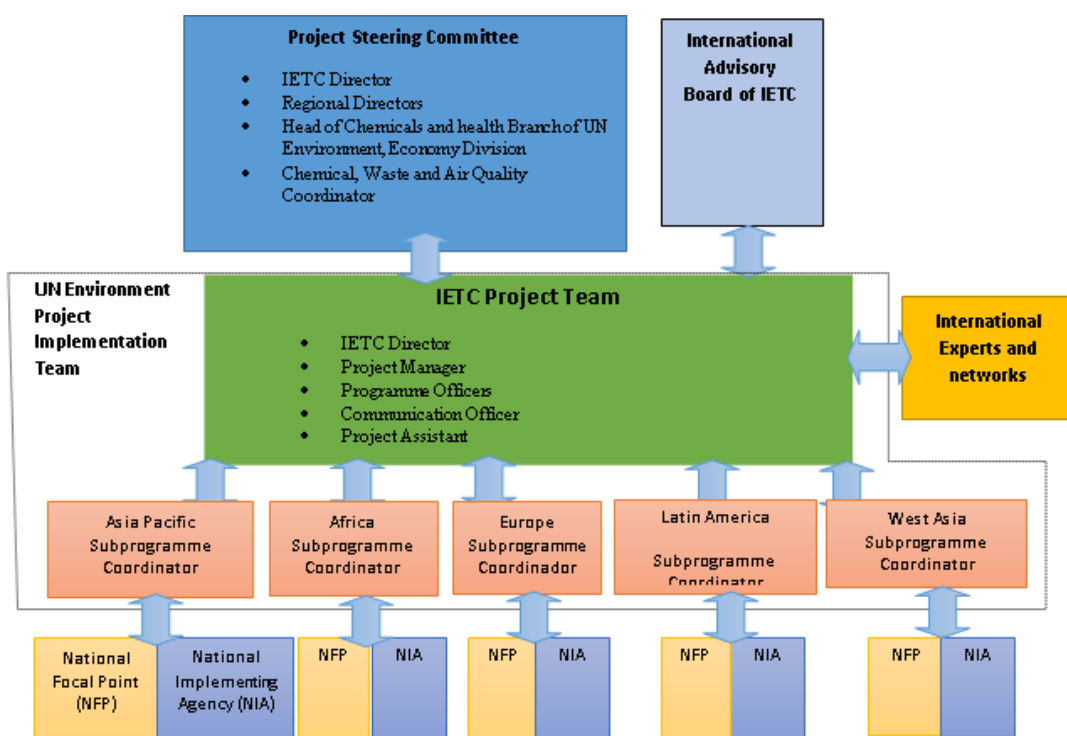
Source: Project document

72. The UNEP-IETC – mentioned as the Centre of Excellence for waste management by the UNEA. 2/Res.7, 3 August 2016– executes the project in strong collaboration with the UNEP ROs – Asia and Pacific, Latin America and the Caribbean, Southern Africa, and West Asia, as well as several implementing partner organisations, namely, IGES, GEC, CSIR South Africa, GRID-Arendal, ICLEI South Asia, IGES, International Solar Alliance, ISWA, LEAD Nepal, SACEP, the Asia Foundation Mongolia, UNITAR, and WWF Bhutan.

73. The UNEP ROs as well as other implementing partner organisations coordinate project activities with the national focal points (NFPs), who are representatives of the national or city governments, or government-related agencies.

Actual implementation structure:

74. Based on the TR, the actual implementation structure of the project was adapted in response to various changes[11]. These adaptations were made due to: i) the PSC was not established, and its functions were instead managed internally by IAB of UNEP-IETC; ii) some staff positions outlined in the project plan were not filled in, leading to certain responsibilities, e.g. outreach and communication, being delegated to external consultant; iii) increased donor support, which facilitated incorporation of additional activities; and iv) enhanced stakeholder engagement that was both more active and dynamic, aimed at better achieving the project objectives and addressing the additional waste management needs brought on, inter alia, by the COVID-19 pandemic.

75. Figure 2 presents the actual implementation structure of the project.

Figure 2: Organigram of the Project with key project key stakeholders in project implementation.

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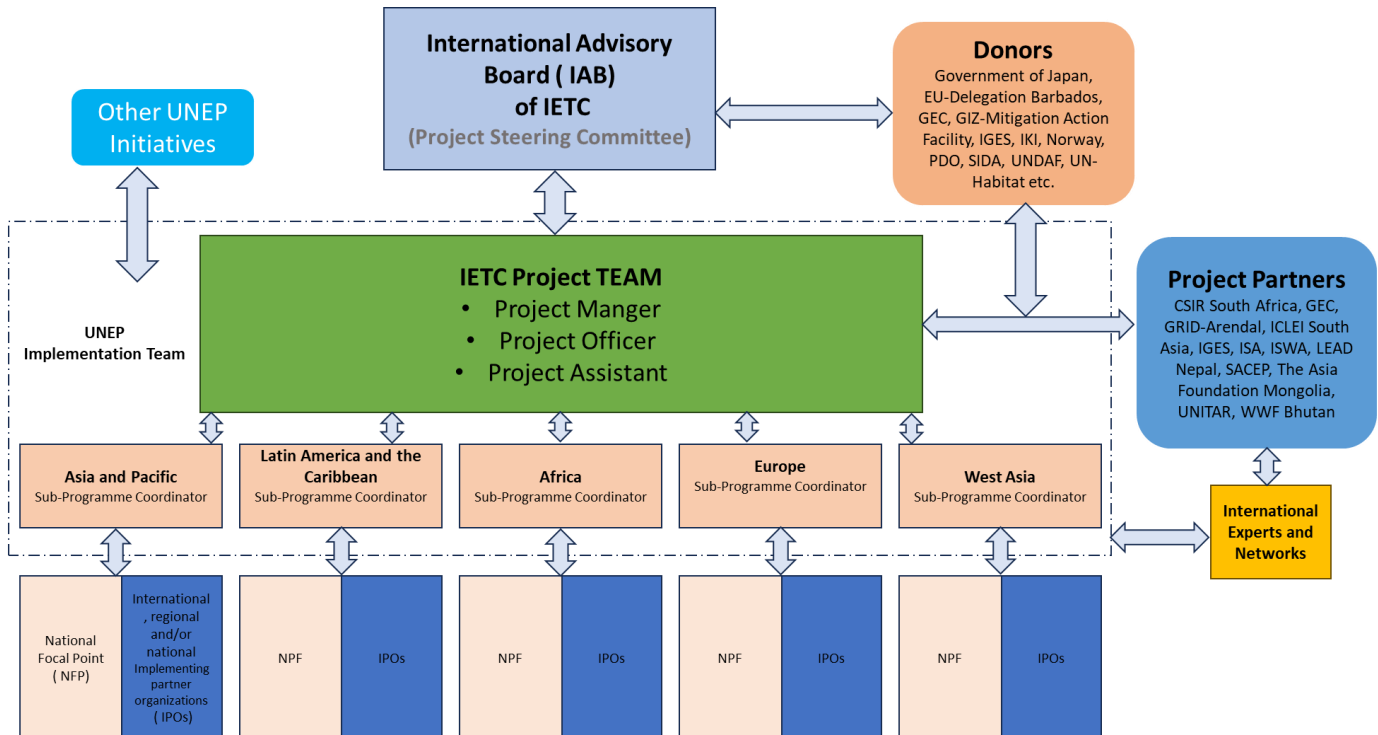
[11] The changes were presented in Project Revision No.1 and No.2, in line with previous IETC projects evaluation report and recommendations from mid-term review.

E.   Changes in design during implementation

76. As indicated in the MTR**,** at the UNEP-IETC, the staff resources have been reduced drastically since project commencement. At project commencement, professional staff at the UNEP-IETC included staff at the following levels - one D-1, two P-4, one P-3 and two P-2 (Junior Professional Officer - JPOs). At the time of the MTR, staff composition was – one P-3 and two P-2 JPOs in the UNEP-IETC Office in Osaka, and one D-1 remotely from Geneva. And at the time of TR it is - One P5 based in Nairobi and One P-3 and one consultant in the UNEP-IETC Office in Osaka.

77. The project was coordinated by the Project manager (PM), a Junior Professional Officer, who is supported by another Junior Professional Officer and a Budget Assistant, one Programme Assistant. One professional staff, P-3, was also involved in project implementation. An Outreach Consultant was recruited in January 2021 for planning and carrying out outreach activities for the UNEP-IETC.

78. The project PSC was not established. Its project functionality was managed internally by IAB of UNEP-IETC. The envisaged governance of the project—oversight, guidance by, and reporting to the PSC (serving also in the capacity of the IAB)—is considered a strength of the project design. However, IAB meetings were held biennially, which posed limitations for providing regular oversight and guidance for project activities. Since the project's commencement, two (11th and 12th) IAB meetings were held, in May 2019 and December 2021, respectively.

79. The project underwent two revisions from the initial approval to accommodate extensions and additional activities, supported by extra funding, as mentioned above for IETC and project business continuity, including budget utilization, activity completion, and administrative actions. Three new 'Outputs'[12] were added to the Logical Framework indicator matrix via clearance of Revision No. 1.

Table 4: Project Revisions

	Clearance date	(Extended) Completion Date to	Planned Secured Budget to (USD)
Original plan in design	05/2018	05/2022	8,229,844
Revision No. 1	27/12/2021	12/2022	18,108,678
Revision No. 2	22/11/2022	06/2023	18,999,319

80. After the MTR, the UNEP-IETC, in collaboration with the UNEP Evaluation Office, monitored the implementation of the MTR's recommendations[13]. The project focused on enhancing knowledge management and monitoring capabilities, developing tools and systems such as a project tracker and results reporting templates. However, these initiatives could not fully meet the needs due to the limited time remaining for project implementation—only eight months as per the original schedule, i.e. September 2021 to May 2022. Furthermore, recommendations for long-term or strategic improvements have been incorporated into the new UNEP Integrated Project Management Report (IPMR)for ongoing reporting and will be considered in future ProDocs preparation incorporating follow-up activities, outreach events, project exit strategies, and stakeholder and partner

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[12] Component D - Waste and climate change project in Mongolia, Bhutan and Nepal (International Climate Initiative (IKI), Output E - Reducing marine litter by addressing the management of the plastic value chain in South- East Asia (SEA Circular), and Output F – Promotion and implementation of circularity and sustainable waste management in the Caribbean. The 'outputs' align with the project reporting (PIMS) and the Logical Framework indicators matrix. The concept of 'Outputs' in the ToC as defined by UNEP evaluation scheme, in financial reporting they were coded as 'components'.
[13] Recorded in document" Project Evaluation - Implementation Plan of Recommendations (30/07/2022)"

meetings.

F.   Project financing

81. The total budget planned for the project was USD 13,958,460, including USD 12,353,460 in cash and USD 1,605,000 in-kind (Environment Fund and Regular Budget). At the end of the project, the total secured funding in cash was USD 15,625,044[14], around 26% higher than the planned budget. As of 22 April 2024, total project expenditures amounted to USD 17,142,642, including in cash USD 15,625,044 which is approximately 83% of the estimated cash costs. The in-kind support, reported solely from UNEP, was USD 1,039,421 for Environment Fund staff-post costs and Regular Budget staff-post costs. An in-kind co-financing contribution of USD 478,177 was provided by the Japanese Government and the Swedish Government.

82. The project main financial resource was Government of Japan (accounting for approximately 47.6%[15] of cash contributions) for various project activities and partnerships. Other donor contributions included funding support from EU -Delegation Barbados (Europe Development Fund), GEC, GIZ-Mitigation Action Facility, IKI, Norway, PDO, Sida, UNDAF, and UN-Habitat.

83. The summary of the project budget in planning, actual secured funding (as of 22 April 2024) is presented in Table 5. Additional details on Project Funding Sources are provided in Annex VI Project Budget and Expenditures -Table 17: Funding Source.

Table 5: Overall of Planned Budget and Funding

Funding source	Planned funding (*USD*)	% of planned funding	Secured funding (*USD*)	% of secured funding
Sub-total: Cash contributions	18,999,320	94%	15,625,044	91%
Sub-total: In-kind contributions	1,199,000	6%	1,039,421	6%
Sub-total: Co-financing Contributions*	0	0%	478,177	3%
Total	**20,198,320**		**17,142,642**	

*In-kind co-financing is donor contributions from the Swedish Government and the Japanese Government to cover the cost of Junior Professional Officers to UNEP-IETC.

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[14] This included the additional secured budget received for additional components added via the Revision No. 1.
[15] Refer to Table 17 Project Funding Sources : Japan (Core) for 30.0%, Japan (IGES-CCET) for 10.6%, Japan (Plastic/Covid-19 waste project) for 5.7%, and Japan (Mercury) for1.3%.

IV. THEORY OF CHANGE AT REVIEW

84. The project MTR has restructured the project's ToC, incorporating UNEP's Results Definitions and the outcomes of UNEP-IETC previous projects' terminal reviews, particularly focusing on their ToC restructuring. This ToC, formally adopted by the UNEP Evaluation Office (though not visible in the latest available PIMS as of June 2022), was also followed in the TR based on its established validity.

85. A comparison of the results from the ProDoc versus the updated ToC in MTR was conducted in TR. The ToC at TR largely remains consistent with the status at the time of the MTR. The TR examined the potential need for adjustments according to the UNEP guidance [16].

86. As indicated in the project MTR, there were discrepancies between the outputs described in the Logical Framework and the ToC, and those defined by UNEP standards. These inconsistencies have been rectified and further detailed in "Theory of Change in MTR". As per the TR guidance[17], the updated ToC at TR is presented in <u>Figure 3: The ToC at Terminal Review</u>, which includes an additional Output C. The modifications were also made to align with UNEP standard definitions and the actual intervention path. The project direct outcome - Increased use of available products and knowledge in waste management by stakeholders for policy making and implementation, and research in project countries – is adopted. The reconstruction justification is provided below in Table 6 while other results statements remain same as in MTR.

Table 6: Justification for Reformulation of Results Statements

Formulation in MTR		Formulation for Reconstructed ToC at TR		Justification for Reformulation
Outputs	A B	**Outputs**	Same as in ToC restricted in MTR	
Outputs	N/A	**Outputs**	**Output C:** Capacities for mitigating the climate, environmental, and social risks associated with the waste management sector, including for affected vulnerable and gender groups.	The project addresses the efforts for positive changes to disadvantaged (especially gender-related) groups in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation[18].

87. In the updated ToC, Outputs A and B remain unchanged following the Mid-Term Review. The added three project Components in project Revision No.1 further strengthened the pathway to project expected outcome.

88. Thus, three Outputs of ToC at TR are formulated as below.

- Output A: Gain in knowledge and awareness about environmentally sound methods and good practices in waste management via access to the GWMO II, RWMOs, and

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[16] UNEP Glossary of results definitions (December 2023): Output, Outcome, Direct Outcome, Project Outcome, Intermediate State, Impact, Assumption and Driver.
[17] Template for the Assessment of Project Design Quality (PDQ), footnote 2
[18] Guidance on the Structure and Contents of the Review Inception Report: Note if the needs of different groups (vulnerable, gender groups, those living with disabilities etc) need to be reflected in the ToC.

reports and guidelines.

- Output B: Availability of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches to waste management.

- Output C: Capacities for mitigating the climate, environmental, and social risks associated with the waste management sector, including for affected vulnerable and gender groups.

89. Output C highlights the project 's interventions integrate the gender mainstreaming and vulnerable groups concerns into tools, guideline or methodologies for national and local level waste management strategies and action plans, as well as awareness raising materials on selecting Environmentally Sound Technologies (ESTs). Mainly Activities 1, 4, 5, 6, and 8 contribute to the achievements of Output C.

90. Project Outputs, Direct Outcome and the Project Outcome are direct achievements of project implementation. The Intermediate State and envisioned Impact are long-lasting results arising, directly or indirectly from a project. The TR assessed whether the project leads to intended changes and the likelihood of these desired effects in the long run.

Drivers and assumptions

91. The MTR formulated Drivers and Assumptions have been taken into consideration and updated reflecting the project Outputs C.

92. Assumptions (from Outputs to Direct Outcome to Project Outcome to Intermediate State)

   i. Governments and other stakeholders are committed to improving waste management
   ii. Collaborative efforts between the government and other stakeholders (including communities, organisations, the private sector, NGOs, academia, etc.) are viable
   iii. Local and national governments are prepared to engage, retain the majority of trained staff, and invest in training new personnel
   iv. Additional countries are interested in joining the waste management efforts and partnerships
   v. Women and vulnerable groups are engaged in the waste management and decision making

93. Assumptions (Direct Outcome to Project Outcome to Intermediate State)

   vi. Legal frameworks and infrastructure have been enhanced to facilitate the sound management of waste
   vii. Funding is made available by the governments, private sector, donors for upscaling of implementation, awareness-raising and capacity building activities

94. Drivers (from Outputs to Direct Outcome to Project Outcome to Intermediate State)

   a) Active support, information, documents and guidance are provided by the UNEP ROs and partners to increase cooperation and support in waste management
   b) Robust knowledge products of state-of-the-art waste hierarchy approaches and waste management are actively promoted
   c) Stakeholders are both concerned about the hazards associated with littering and waste dumping and interested in the conversion of waste into a resource, benefits of managing waste effectively, and using recovered resources as a driving force for sustainable development and job creation
   d) Women-specific needs and preferences, health risk for vulnerable groups (informal sector) on waste management services are concerned in selection of technologies and management strategies

95. Drivers (Direct Outcome to Project Outcome to Intermediate State)

e) Current and new government(s)' continued interest and commitment, to waste management/waste as resource
f) Continuation of awareness-raising and capacity building activities
g) Financing schemes provided by the governments, donors, private sectors for upscaling
h) Continued active international and regional cooperation and support (i.e. allocation of human and financial resources) to implement projects in waste management

Causal pathways

96. If the underlying Assumptions and Drivers remain valid, it is anticipated that the synergistic effect of the three Outputs will culminate in the attainment of the Direct Outcome—the enhanced utilization of available products and accumulated knowledge in the realm of waste management by stakeholders engaged in policymaking, implementation, and research within the project countries. Ideally, this would manifest as the project countries actively employing resources such as the GWMO II, RWMOs, and additional strategies, roadmaps, action plans, guidelines, and training materials developed under the project's auspices. The project shall also lead to the equipped capacity to use environmentally sound technologies and methodologies for waste management to mitigate climate and social risks to women and vulnerable groups.

97. Contingent upon the Drivers and Assumptions remaining consistent, the Direct Outcome is projected to facilitate the realization of the Project Outcome—the development and enactment of policies, practices, and legal frameworks for waste prevention and sound management in the project countries. Consequently, these countries are expected to adopt and implement sound waste management practices using UNEP guidance and tools.

98. Driven by the influence of the Drivers, the achievement of the Project Outcome paves the way for advancement toward the Intermediate State. This state is characterised by the adoption of an environmentally sound waste management paradigm that prioritises the 'waste as a resource' approach through waste prevention, segregation for reuse and recycling, and the efficient treatment and disposal of waste in both the project countries and, potentially, new ones. Such prioritization is expected to inspire and motivate other nations to implement similar practices within their own countries.

99. Countries applying sound management of waste should logically lead to an achievement of the expected Impact, that is, significantly reduced negative impacts from waste on environmental and human health, in the project partner countries and/or new countries/regions.

Figure 3: The ToC at Terminal Review
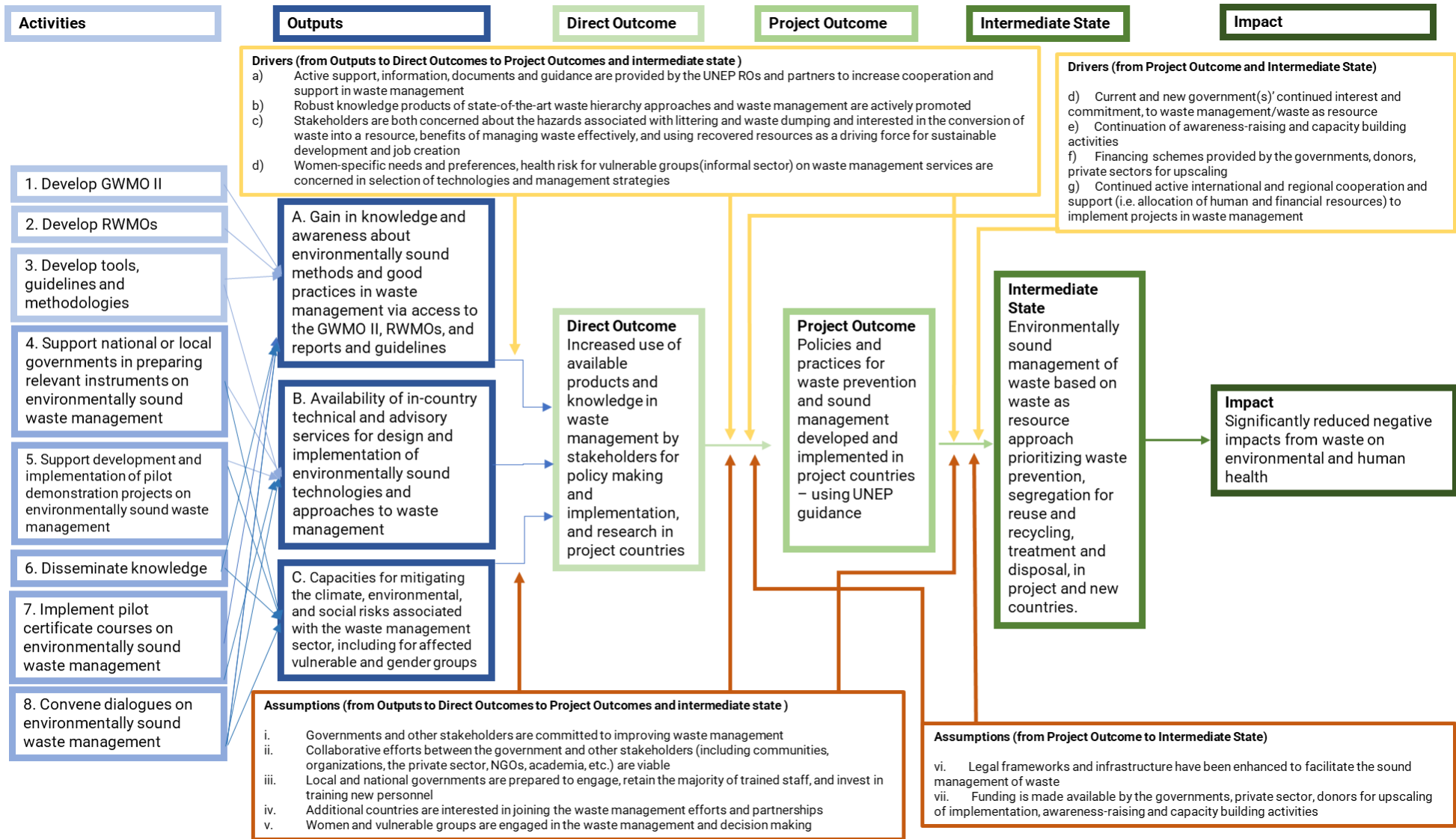
V.   REVIEW FINDINGS

A.   Strategic Relevance

Alignment to UNEP's UNEP Medium Term Strategy[19] (MTS), Programme of Work (POW) and Strategic Priorities

100. The project primarily supports the achievements of the objectives of:

   - [UNEP Programme of Work (POW) 2018-2019](#) and 2020-2021of [Medium Term Strategy (MTS) 2018-2021](#) in seven priority areas:

      i.   Climate Change

      ii.   Resilience to disasters and conflicts

      iii.   Healthy and productive ecosystems

      iv.   Environmental governance

      v.   Chemicals, waste and air quality

      vi.   Resource efficiency

      vii.   Environment.

   - The Outcomes of [POW 2022-2023](#) in three strategic objectives of the [MTS 2022-2025](#) on Climate stability, Living in harmony with nature, and Towards a pollution-free planet:

      i.   Outcome 3A - Human health and environmental outcomes are optimised through enhanced capacity and leadership in the sound management of chemicals and waste

      ii.   Outcome 3B - Waste management is improved, including through circular processes, safe recovery of secondary raw materials and progressive reduction of open burning and dump sites

      iii.   Outcome 3C - Releases of pollutants to air, water, soil and the ocean are reduced

      iv.   Outcome 1B - Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals of the Paris Agreement

101. The project Outcome – Policies and practices for waste prevention and sound management developed or implemented in countries met the Expected Accomplishment (EA) 'b' of Subprogramme 5 of POW 2018-2019 – Chemicals, waste and air quality – Policies and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the framework of relevant multilateral environmental agreements.

102. The project specifically supports the MTS 2022-2025 thematic subprogramme - Chemicals and Pollution Action, on:

   - Regional and national integrated policy has shifted towards the sound management of chemicals and waste

   - Land-based sources of pollution in fresh water and oceans, including marine litter

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[19] 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.

and nutrients, are reduced

- Air pollution action, sustainable mobility and clean energy are supported
- Institutional capacity to adopt and act on national and international commitments is enhanced
- "3R" waste management systems are mainstreamed
- Resource efficiency and circularity in key sectors are improved
- The economics of chemicals actions and waste and pollution reduction support have shifted away from harmful chemicals
- Global advocacy catalyses the phase-out of most polluting products and practices
- Markets, supply chains, trade and consumer behaviours have shifted towards reduced pollution, influenced by transparency enabled by digital technologies
- Global plastics pollution is reduced

103. The project expected results are also fully aligned with the United National Environment Assembly Resolutions:

- Environment Assembly resolution 1/5 – Chemicals and waste
- Environment Assembly resolution 1/6 – Marine plastic debris and microplastics
- Environment Assembly resolution 2/5 Delivering in the 2023 Agenda for Sustainable Development
- Environment Assembly resolution 2/6, Supporting The Paris Declaration
- Environment Assembly resolution 2/7 – Sound management of chemicals and waste
- Environment Assembly resolution 2/11 – Marine plastic debris and microplastics
- Environment Assembly resolution 3/2 – Pollution mitigation by mainstreaming biodiversity into key sectors
- Environment Assembly resolution 3/4 – Environment and health
- Environment Assembly resolution 3/6 – Managing soil pollution to achieve Sustainable Development
- Environment Assembly resolution 3/7 – Marine litter and microplastics
- Environment Assembly resolution 3/9 – Eliminating exposure to lead paint and promoting environmentally sound management of waste lead-acid batteries
- Environment Assembly resolution 4/6 – Marine plastic litter and microplastics
- Environment Assembly resolution 4/7 – Environmentally sound management of waste
- Environment Assembly resolution 4/8 – Sound management of chemicals and waste
- Environment Assembly resolution 4/9 – Addressing single-use plastic products pollution
- Environment Assembly resolution 4/21 – Implementation plan "Towards a pollution-free planet"
- Environment Assembly resolution 5/7 – Sound management of chemicals and waste
- Environment Assembly resolution 5/8 – Science-policy panel to contribute further to the sound management of chemicals and waste

- Environment Assembly resolution 5/14 – End plastic pollution: towards an international legally binding instrument

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

Alignment to Donor/Partners Strategic Priorities

104. The project is well aligned with donors' strategic priorities.

105. UNEP Governing Council Decision 16/34 (1991) called for the establishment of the UNEP-IETC. An agreement was signed between UNEP and the Government of Japan for the establishment of UNEP-IETC in Osaka, Japan, in 1992. The UNEP-IETC and the project are mainly funded by Government of Japan (GoJ).

106. Japan is a leading country using advance waste management technologies[20] to handle waste in a sustainable way, for example, Japan has the second highest plastic management index (PMI) in the world, thanks to its advanced waste management system and high levels of local cooperation[21]. According to information on the website of the Ministry of Environment of Japan, several projects in the Asia-Pacific as well as many other countries, dealing with challenges due to, inter alia, the growth in population, low-income, enhanced consumption of resources and energy, waste and waste management are supported by the Government of Japan[22].

107. In addition to these domestic efforts, Japan has continuously taken international actions on Environment and Climate Change[23] cooperation.

108. At the 2018 ASEAN+3 Summit, Japan announced the [ASEAN+3 Marine Plastic Debris Cooperative Action Initiative](#), while during the G20 Summit in Osaka, it released the [Osaka Blue Ocean Vision](#), which aims to reduce additional pollution by marine plastic debris down to zero by 2050. In July 2021, MOFA launched the Management of wastes, Recovery of marine litter, Innovation, and Empowerment ([MARINE](#)) Initiative. And in [ASEAN-Japan Summit in 2018](#) Japan announced to expand the capacity building support and conducts awareness-raising activities primarily on reducing marine plastic litter in ASEAN countries.

109. The Ministry of Foreign Affairs (MOFA) reaffirmed the importance of international cooperation and enhancement of the capacity of developing countries to act. Under the African Clean Cities Platform (ACCP), Japan supports waste management project in Africa. At Tokyo International Conference on African Development (TICAD) 8 in August 2022, Japan committed to promoting decarbonization and recycling in the waste sector under ACCP, aiming to enhance public health and benefit 30 million people across Africa through improved waste management.

110. The project is also in line with the work of the [International Climate Initiative (IKI](#)[24]), which supports projects contributing towards, amongst others, climate change mitigation. Funds from the IKI were directed towards implementation of pilot projects in Bhutan, Mongolia and Nepal.

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[20] Ministry of the Environment: [Solid Waste Management and Recycling Technology of Japan — Toward a Sustainable Society Environment](#) (2012)

[21] [Japan's Plastic Waste Management – Challenges and Potential Solutions](#), 2022

[22] [Environmental Protection Policy in Japan](#)

[23] [White Paper on Development Cooperation 2022 Japan's International Cooperation](#), Page 72

[24] Since 2022 the IKI is implemented by the Federal Ministry for Economic Affairs and Climate Action (BMWK) in close cooperation with the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and the Federal Foreign Office (AA). IKI is one of the most important instruments of the German Federal Government for the international financing of climate change mitigation and biodiversity. IKI operates within the framework of the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), financing climate change mitigation and biodiversity conservation in developing, emerging and transition countries.

111. Norway and Sweden/Sida have supported project activities focusing on e-Waste and plastic solutions. Additionally, the EU Delegation in Barbados and Mitigation Action Facility[25] through the LAC RO, Petroleum Development Oman and UNDAF through West Asia RO, along with the Global Environment Centre Foundation (GEC[26]), have contributed to capacity-building and knowledge dissemination initiatives. These efforts are designed with their long-term vision to support global environmental, climate and social objectives.

112. The project is fully in line with the mission of project partners, for instance, IGES-CCET[27], which aims at assisting national, regional and local governments in developing waste management systems in collaboration with UNEP-IETC; and ISWA, a key project partner in developing the GWMO II, with a mission of supporting sound waste management worldwide.

Rating for Alignment to Donor /Partners Strategic Priorities: Highly Satisfactory

Relevance to Global, Regional, Sub-regional and National Priorities

113. The project is fully aligned with regional, sub-regional, and national priorities requiring environmentally sound waste management, addressing the escalating environmental, climate, and health risks posed by inadequate waste management practices.

114. The project responds the international advocations such as stipulated in UN 2030 SDG Agenda[28], International Environment Agreements (e.g. BRS and Minamata conventions) and UNEP Global Resources Outlooks(2019) for a more circular and sustainable approach to waste management and resource use.

115. The project also reacts the specific regional and community prioritised needs to facilitate effective waste management tailored to local environmental, economic, and social contexts, such as efficient e-Waste management in Asia due to, inter alia, the rapid industrialization and urbanization in the region.

116. Several publications highlight the waste growing trend, for example, What a Waste – A Global Review of Solid Waste Management (World Bank, 2012), WHAT A WASTE 2.0 – A Global Snapshot of Solid Waste Management to 2050 (World Bank, 2018), Climate Change and Plastics Pollution Synergies Between Two Crucial Environmental Challenges (OECD, 2023)[29] , as well as the interlinkage between the rate of generation of solid waste and the greenhouse gas emissions and the growing interaction and interlinkage between countries and regions.

117. Different regions/regional organisations requested UNEP to prepare the Regional Waste Management Outlooks (RWMOs), the Latin America and the Caribbean (LAC)

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[25] The Mitigation Action Facility – an agile, grant-based multi-donor fund – drives sectoral decarbonisation, evolved from the NAMA Facility in 2023, as a go-to platform for providing technical support and climate finance for ambitious mitigation projects with an aim of decarbonising key sectors of the economy and society. GIZ is the designated Facility Grant Agent (FGA) of Mitigation Action Facility.

[26] GEC was founded with the fundamental mission to support UNEP-IETC and with the aim of contributing to the conservation of the environment in developing nations and around the world by leveraging Japan's wealth of conservation knowledge and experience in support of UNEP's urban environment conservation activities in developing countries and undertaking activities to promote international cooperation to protect the global environment.

[27] The IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) is established in 2014 with the aim of assisting national, regional and local governments in developing waste management systems in collaboration with UN Environment, its International Environmental Technology Centre.

[28] Especially contributing to achieving Sustainable Development Goal target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse, among others Goal 3 (target 3.9), Goal 11 (target 11.6), Goal 13 (target 13.1), Goal 17 (targets 17.6, 17.7 and 17.16).

[29] https://www.oecd.org/environment/plastics/Policy-Highlights-Climate-change-and-plastics-pollution-Synergies-between-two-crucial-environmental-challenges.pdf

countries[30] 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".

Rating for Relevance to Global, Regional, Sub-regional and National Priorities: Highly Satisfactory

Complementarity with Existing Interventions/Coherence

118. The project is a continuation of four previous UNEP-IETC projects, 532.1, which came to an end in December 2016 as well as 531.1, 531.2 and 534.1, which ended in 2018/2019. As mentioned earlier, project integrated SDG Goals into the project framework, to continuously contribute to the objectives in an integral way.

119. The Project Document also states that the project results are built up from strong relationships and partnerships with key global/regional/national institutions from the UNEP-IETC previous projects and cooperation processes.

120. The GWMO II builds upon the GWMO I, complements several other existing environmental and/or waste management publications, such as UNEP's Global Environmental Outlook (2012), UNEP's Towards a Green Economy (2011), UN Habitat's Solid Waste Management in the World's Cities (2010), World Bank's What a Waste: A Global Review of Solid Waste Management (2012), and Global E-Waste Monitor 2017 (ITU, UNU, ISWA, 2017). Some publications, such as WHAT A WASTE 2.0−A Global Snapshot of Solid Waste Management to 2050 (2018), were also in parallel published with UNEP Global Resources Outlooks 2024.

121. The project also interlinked with UN/UNEP project/initiatives such as Plastics Initiative, Africa Clean Initiative, and Minamata Initial Assessment fostering a more impactful response to the complex challenges of waste management. The cooperation to the mandates of SACEP, SEA Circular, and COBSEA Secretariat supported south-south cooperation on marine little monitoring waste management and plastic free rivers and sea.

122. The project also created synergies with the UNEP Strategic Approach to International Chemicals Management (SAICM) to promote chemical safety globally[31]. The waste management strategies developed within the project's framework enable developing regional and national waste management policies and capacities, and facilitate compliance with the major international environmental conventions mentioned above.

Rating for Complementarity with Existing Interventions/Coherence: Highly Satisfactory

Rating for Strategic Relevance: Highly Satisfactory

B.   Quality of Project Design

123. The project was well designed incorporating information required by UNEP criteria at the time of 2017-2018. The project design was quite extensive in terms of coherence with previous UNEP-IETC implemented projects, situation analysis, context, stakeholder identification, implementation arrangement, donor mobilization (action) plan, monitoring plan, and planned activities, including a detailed project work plan.

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[30] XIX Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, Los Cabos, Mexico, 11-14 March 2014.
[31] https://www.saicm.org/about/overview, which is transferred to the new Global Framework on Chemicals, adopted by the ICCM5 in Bonn in 2023.

124. The project rationale and objectives were based on comprehensive documentation and research. The project results were well illustrated in Objective Tree and Theory of Changes diagrams, as well as the Logic Framework. The project activities fed into each other between outputs, such as between the activities at the knowledge generation and dissemination.

125. The project results were realistically defined for the planned implementation period and relatively modest budget, with the project outcome.

126. The ToC defined key drivers and assumptions and how they fed into the project Outcome and Intermediate State. The casual pathways from the project activities to outcome could be understood from the ToC figure in ProDoc, there was no description of pathways from outcome to impact.

127. The Logical Framework was well-structured, featuring clearly defined outputs baseline and target metrics, and the expected milestones. However, it focused exclusively on quantitative and implementation-based indicators rather than being outcome-oriented. Consequently, some project outputs, like the approved strategies and action plans, remained at the delivery stage without progressing to application and sustainable results. This issue may also have resulted from the lack of emphasis on sustainability strategies in the project design, particularly in engaging institutional and financial commitments to carry forward the project results, even though the uptake and replicability of the project results are aligned with the expected activities.

128. The gender and venerable groups aspects were addressed, including a Gender Marker Self- assessment.

129. A wide range of potential risks are addressed and accompanied by credible risk mitigation strategies and actions in Risk Management & Safeguards section of ProDoc.

130. The project monitoring plan outlined basic information and assigned responsibility to the UNEP-IETC project team, with reports scheduled biannually, in addition to UNEP 6 monthly PIMS reporting obligations. Enhancing this plan with a detailed communication strategy and a comprehensive knowledge management plan could significantly ensure and improve its application effectiveness.

131. The results defined in the Logic Frame result structure were not fully aligned with ToC. According to the updated UNEP's results definitions and requirements (2023)[32], project ToC was reformulated according to the TR guidance, as mentioned earlier.

132. Overall, the ProDoc is considered to be Highly Satisfactory. Most of the criteria have been rated as Satisfactory or Highly Satisfactory, the lowest rating is Moderately Satisfactory for the Operating Context and Logical Framework and Monitoring. The ratings table is as follows:

Table 7: Ratings Table of Quality of Project Design

	SECTION	SELECT RATING	SCORE (1-6)	WEIGHTING	TOTAL (Rating x Weighting/10)
A	Operating Context	Moderately Satisfactory	4	0.4	0.16
B	Project Preparation	Highly Satisfactory	6	1.2	0.72
C	Strategic Relevance	Highly Satisfactory	6	0.8	0.48

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[32] The results definition and requirements at the time of project design was not available for the review. The TR consultant considered the ProDoc definition and requirements were compliant at the time of project approval.

	SECTION	SELECT RATING	SCORE (1-6)	WEIGHTING	TOTAL (Rating x Weighting/10)
D	Intended Results and Causality	Satisfactory	5	**1.6**	**0.8**
E	Logical Framework and Monitoring	Moderately Satisfactory	4	**0.8**	**0.32**
F	Governance and Supervision Arrangements	Highly Satisfactory	6	**0.4**	**0.24**
G	Partnerships	Highly Satisfactory	6	**0.8**	**0.48**
H	Learning, Communication and Outreach	Highly Satisfactory	6	**0.4**	**0.24**
I	Financial Planning / Budgeting	Highly Satisfactory	6	**0.4**	**0.24**
J	Efficiency	Highly Satisfactory	6	**0.8**	**0.48**
K	Risk identification and Social Safeguards	Satisfactory	5	**0.8**	**0.4**
L	Sustainability / Replication and Catalytic Effects	Highly Satisfactory	6	**1.2**	**0.72**
M	Identified Project Design Weaknesses/Gaps	Satisfactory	5	**0.4**	**0.2**
				TOTAL SCORE (Sum Totals)	**5.48**

1 (Highly Unsatisfactory)	< 1.83	4 (Moderately Satisfactory)	>=3.5 <=4.33
2 (Unsatisfactory)	>= 1.83 < 2.66	5 (Satisfactory)	>4.33 <= 5.16
3 (Moderately Unsatisfactory)	>=2.66 <3.5	**6 (Highly Satisfactory)**	**> 5.16**

Rating for Project Design: **Highly Satisfactory**

C.   Nature of the External Context

133. The project implementation encountered unforeseen challenges due to the global outbreak of the COVID-19 pandemic starting in March 2020. This significant disruption led to two necessary project extensions to adjust the timeline of activities and adapt methods for achieving the originally intended outputs. Adjustments included producing and discussing knowledge products remotely, extended timelines for stakeholder decision-making and application of the waste management strategies and technologies, organizing capacity building and knowledge dissemination activities online, and visibility and communication reaching out with e- materials and web-based resources.

134. No in-country conflict or political upheaval was reported in the countries covered during the project period. However, some delays in project activities were associated with government structural reforms and personnel turnover. These issues, however, were anticipated in the project's Risk Safeguards plan, and their negative impact was minimised through project risk mitigation measures.

135. The project reported operational challenges during the preparation phase, including delays in signing off on legal agreements to commence project activities. To offset these delays, improved project coordination was implemented, e.g. fully utilizing UMOJA[33].

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[33] Umoja is a complete re-working of the way the United Nations Secretariat manages its administration by transforming our work patterns, how we conduct our business and how we manage our resources. At the centre of this transformation is the leading-edge Enterprise Resource Planning (ERP) software, which enables a harmonised and streamlined approach to the Organisation's management of finance, human resources, procurement and assets.

Rating for Nature of the external context: Moderately Unfavourable

D.   Effectiveness

136. The review of the project's outputs, outcomes, and milestones was based on various sources, including the ToC and Logical Framework from the Project Document (ProDoc), Logical Frameworks in Revisions No. 1 and No. 2, the summary of outcomes and outputs from the Project Operational Closure Report (December 2023), the restructured ToC at the TR, the latest project PIMS report dated June 2022, and information obtained during the TR process, including deliverables and reports from project partners.

137. The ToC and causal pathways approved in the MTR were not incorporated into the reporting structure of the post-MTR phase of the project. The ToC has been reconstructed and presented in Section IV – Theory of Change at TR, elaborating how the project contributed towards the intended impact from outputs achieved within the framework of the project.

138. To be consistent to the PIMS reporting structure, the project results framework, including indicators for milestones, is presented as below:

Table 8: Project Results Framework – Achievement of Milestones and Indicators

Relevant Expected Accomplishment (b) in the Programme of Work:		
Policies and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the frameworks of relevant multilateral environment agreements.		
Project Components	**Expected Milestones**	**Achieved Milestones**
A) Knowledge products on environmentally sound methods and good practices	Number of Global Waste Management Outlooks published (Baseline: 1; Target: 2)	Achieved: See M1.6
	Number of regional waste management outlooks published (Baseline: 4; Target: 7)	(Over)Achieved: See M1.2-M1.4
	Number of updated tools, guideline, or methodologies for national and local level strategies and action plans developed (Baseline: 0; Target: 3)	(Over)Achieved: See M1.7
M1.1 Outline of regional waste management outlooks available	June 2018	Launching dates: 1. June 2018 – Africa WMO 2. October 2018 – LAC WMO 3. March 2019 – SIDS WMO 4. June 2020 – West Asia WMO 5. March 2023 – Electrical & Electronic Waste Outlook in West Asia 2050
M1.2 One Regional Waste Management Outlook available	Dec 2018	
M1.3 One more Regional Waste Management outlook available	June 2019	
M1.4 One more Regional Waste Management Outlook available	Dec 2019	
M1.5 Updated of tools, guideline including gender	June 2020	1. Future E-Waste Scenarios 2. Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal 3. SEA circular Solving Plastic Pollution at Source in South-East Asia Resource Deck

mainstreaming, or methodologies for national and local level strategies and action plans available		4. [Addressing Marine Litter in Cambodia: A National Source Inventory (NSI) Approach](#) 5. [Identifying Plastic Waste Leakage Hotspots and Flows in South-East Asia](#) 6. [Waste Wise Cities Tool in Chonburi, Thailand](#) 7. [Waste Wise Cities Tool in Tam Kỳ, Vietnam](#) 8. [Waste Wise Cities Tool in Seremban, Malaysia](#) 9. [Waste Wise Cities Tool in Hội An, Vietnam](#) 10. [Waste Wise Cities Tool in Sihanoukville, Cambodia](#) 11. [Waste Wise Cities Tool in Kep, Cambodia](#) 12. [East Asian Regional Node for knowledge sharing](#) 13. [Circular solutions for plastic pollution - City-university collaboration for plastic-free cities](#) 14. [Greening Healthy Infrastructure – Rapid Assessment of Policies and Practices on Health Care Waste Management in Ethiopia and Kenya](#) 15. [Health Care Waste Management towards the Circular Economy – A case study at Tribhuvan University Teaching Hospital in Nepal](#) 16. [Open Waste Burning in Asia Cities- Challenges and Opportunities](#) 17. Case study Malysia – 3 R initiative solving plastic pollution at source – SEA circular 18. Bottle-to-Bottle Recycling can Boost Sri Lanka in the Transition to Circularity in Plastics 19. Nation's waste on the scale- National Waste Inventory Survey (NWIS-2019) Bhutan 20. Delivering solution for biodegradable waste through Environmentally Sound Technology and Innovative Partnership 21. Venezuela – municipal integrated waste management plans. IDB.
M1.6 Global waste management outlook II available	Dec 2020	Launching dates: [Global Waste Management Outlook 2024](#) - March 2024 in [UNEA 6](#)
M1.7 Governments and other stakeholders receive support through knowledge products	June 2021	1. [Waste to Energy: Considerations for Informed Decision-making](#) 2. [CCET guideline series on intermediate municipal solid waste treatment technologies: Waste to energy incineration](#) 3. [Waste Management during the COVID-19 Pandemic: from response to recovery](#) 4. [CCET guideline series on intermediate municipal solid waste treatment technologies: Mechanical-Biological Treatment](#) 5. [CCET guideline series on intermediate municipal solid waste treatment technologies: Composting](#) 6. [CCET guideline series on Reduction of Organic Waste through Source Separation – A Guide for Rasing Awareness](#) 7. [The Future of Electric Vehicles and Material Resources: A Foresight Brief](#) 8. [Towards Zero Waste: A Catalyst for delivering the Sustainable Development Goals](#) 9. [Gender and waste management: E-Waste and plastic waste](#)

		10. [Gender and medical waste in the time of COVID-19](#) 11. [Ecological Education for School in Hoi An – A Teacher's Guide](#) 12. [Blueprints of spinner composter](#) and [Blueprint of automatic composter 3](#) from IKI Mongolia Project. 2019 13. Private sector (SunPower, Kaneka, Green Technology Bank, SUS Environment), and civil society organisations (UNAM, Sichuan University, Tsinghua University, The Asia Foundation, and UIAA) have used UN Environment guidance in development and implementation of sound waste management.
B) Provision of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches	Strategies, action plans, or relevant instruments on environmentally sound waste management supported (Base line: 8; Target: 14)	(Over)Achieved: See M2.1 – M2.7
	Number of pilot demonstration on environmentally sound waste management supported (Base line: 0; Target: 3)	(Over)Achieved: See M2.8
M2.1 The beneficiary countries or cities identified	June 2018	Bhutan, Cambodia, India (Varanasi), Indonesia, (North Sumatra); Jamaica; Kenya; Kyrgyzstan; Maldives; Mongolia; Myanmar; Nepal; Sri Lanka; Tanzania, Dar-es-salam, Uruguay, Honduras, SACEP countries, Indonesia (Lake Toba)
M2.2 National level experts and stakeholders identified in 3 countries or cities Dec 2018	Dec 2018	1. [Baseline study of waste generation by waste stream has been completed in Nepal](#) 2. [State of Municipal Solid Waste Management in Negombo City, Sri Lanka](#). 2019 3. [Nation's Waste on the Scale](#) -National Waste Inventory Survey (NWIS-2019) Bhutan 4. [Waste And Climate Change Project Report on the pilot project to test Environmentally Sound Technologies for small to medium-scale food waste composting](#). 12/ 2022 5. [Ulaanbaatar Household Waste Composition Study-Report](#) . 2019
M2.3 National level experts and stakeholders identified in 3 more countries or cities	June 2019	6. [Gender and Waste Nexus: Experiences from Bhutan, Mongolia and Nepal - Policy Brief](#). 2019 7. [South African Municipal Waste Management Systems – Challenges and Solutions](#) 8. Global Solar Investment Report State of solar markets and role of concessional finance in ISA member countries 30/10/2019 9. Technical Report on Estimation of SLCP And GHG Emission from the Waste Sector (2020)

M2.4 Baseline studies and outline of the strategy and action plan completed in 3 countries or cities	Dec 2019	10. Sustainable waste management: A financial analysis, Bhutan. 07/2020 11. Impact of the Covid19 Pandemic on E-Waste: The First Three Quarters Of 2020 12. E-Waste baseline survey in Sri Lanka 13. Assessment of Green Financing Opportunities for Waste Management in Bhutan 14. Research Paper Waste and Climate Change. August 2022 15. Research Paper Project Concept for Sustainable Waste Management Towards Zero Waste
M2.5 Baseline studies and outline of the strategy and action plan completed in 3 more countries or cities	June 2020	16. <u>Study on Integrated Solid Waste Management in Padang City</u> 17. Solar Waste Capability Brief, ISA 18. Case study: <u>Waste Segregation at Source – Solving Plastic Pollution in Penang</u> and <u>Petaling Jaya's Assessment Tax Rebate Scheme- 3R (Reduce, Reuse, Recycle) Initiatives: Solving Plastic Solution at Source in Petaling Jaya</u>, under Reducing marine litter by addressing the management of the plastic value chain in Southeast Asia
M2.6 Evidence based national / city level waste management strategy with the action plan supported for 3 countries or cities	Dec 2020	Twenty one strategies and action plans were developed globally: Examples are from : Bhutan, Kyrgyzstan, Mongolia, Nepal, Vietnam, South Africa, Chile, Myanmar, Cambodia, Uruguay, Tanzania, Indonesia, Varanasi 1. <u>National Waste Management Strategy – Bhutan</u> 2. <u>Phnom Penh waste management strategy and action plan 2018-2035</u> 3. <u>A Regional Waste Management and Action Plan for Zone 6 in Maldives</u>.
M2.7 Evidence based national / city level waste management strategy with the action plan supported for 3 more countries or cities	June 2021	4. <u>A Roadmap for Sustainable Waste Management and Resource Circulation in South Asia, 2019-2030</u> 5. <u>Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle - Income Countries</u> 6. <u>National Plastic Waste Reduction Strategic Actions for Indonesia</u> 7. <u>Enhancing Circular Economy Perspectives – Plastic Waste Management Strategy and Action Plan for Greater Hyderabad Municipal Corporation</u> 8. <u>Disaster Waste Management Policy/Strategy Nepal</u> 9. <u>Sri Lanka National Action Plan on Plastic Waste Management (2021-2023)</u> 10. <u>Action Plan on Integrated Solid Waste Management in Padang City</u>, Indonesia (2023-2030) 11. <u>Waste Management Strategy and Action Plan for Negombo City, Sri Lanka, (2020-2030)</u> 12. National Strategic Plans and Action Plan to Reduce Environmental Pollution in Iraq 2022-2030 13. <u>Waste Management Strategy and Action Plan for Phnom Penh 2018-2035</u> 14. National Waste Management Flagship Program (Zero Waste Bhutan by 2030) 15. <u>Holistic Waste Management Strategy for Varanasi City</u> 16. National waste management strategy for Kyrgyzstan 17. <u>Waste Management in Myanmar: Current Status, Key Challenges and Recommendations for</u>

		National and City Waste Management Strategies 18. Uruguay 10-Year National Waste Management Plan. 07/10/2021 19. Chile: National Strategy on Organic Waste Management 2040 20. Jamaica: Plastic Recycling Eco-Reward Pilot Programme. 21. Sustainable Management of E-Waste in the Off-Grid Renewable Energy Sector in Rwanda, ISA. 22. Watts to Waste Exploring India's Solar Waste Landscape, ISA, 08/2023
M2.8 Pilot demonstration projects supported in three countries or cities	Dec 2021	Pilots project in Bhutan, Mongolia, Nepal. Others similar piloting/demonstrating activities were conducted in Hyderabad (India), New Castle (South Africa), Jamaica, Vietnam, Myanmar, Cambodia, Negombo (Sri Lanka), South Africa, Maldives. For examples: 1. In partnership with the Asia Pacific Clean Air Partnership (APCAP), enhanced Live and Learn for Community and Environment (L&L)'s ability to work with Hanoi stakeholders on addressing open burning of solid waste and rice straw residues based on UNEP 2018 Air Pollution in Asia Pacific: Science Based Solutions. 2. UNEP Support the Secretariat of the Pacific Regional Environment Programme (SPREP) member countries, under the Moana Taka Partnership, for Waste Management and Pollution Control. 3. UNEP has supported the Jamaican National Environment and Planning Agency (NEPA) in creating their Plastic Recycling Eco-Reward Pilot Programme, promoting policies to increase plastic recycling among private sector companies. 4. Supply, Installation, Testing and Commissioning of 1 TPD Biogas Plant (WWF Bhutan)
C) Promotion and dissemination environmentally sound practices and methods	Number of awareness raising materials on environmentally sound waste management including gender materials disseminated using UNEP-IETC website (Baseline: 0; Target: 10)	(Over)Achieved: See M3.2, M3.4, M3.5
	Knowledge on environmentally sound waste management disseminated to students through implementation of pilot certificate courses (Baseline: 0; Target: 3)	(Over)Achieved: See M3.1, M3.3, M3.6, M3.7

	Number of dialogues on environmental technologies convened to disseminate knowledge on environmentally sound waste management (Baseline: 0; Target: 2)	(Over)Achieved: See M3.8
M3.1 Institutions to implement pilot certificate courses identified in one region	June 2018	1. Suez Canal University, Egypt – course on holistic waste management 2. UNAM – Mexico 3. Los Andes University (ULA/CIDIAT), Merida, Venezuela – municipal integrated waste management plans 4. LAC University Consortium of WM, Valparaiso, Chile – sustainable waste management
M3.2 Gender awareness raising materials developed and disseminated	Dec 2018	1. Gender and Waste management	International Environmental Technology Centre (unep.org) Major publication developed: 2. Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal, 2019 Gender awareness-raising materials compiled and disseminated: 3. Video series, GENDER & WASTE (2019) 4. Video series, GENDER AND WASTE NEXUS (2020) 5. Photos from fieldwork (2019): Bhutan, Mongolia, Nepal 6. Story, When waste works for women (2019) 7. Story, "Voices of women working in waste: a story from Bhutan" (2018) 8. Gender and waste management: Did you know(2022) 9. Gender and medical waste in the time of COVID-19 (2022) 10. The role and experience of women in plastic waste management (2022) 11. The role and experience of women in e-Waste management (2022) 12. Recommendations to improve women's participation and experience in plastic and e-Waste management (2022) 13. Gender responsive programs: From inclusion to transformation – Guidance on how to mainstream gender in e-Waste and plastic waste (2022)
M3.3 Implementation of pilot certificate courses initiated in one region	June 2019	1. Technical University of Panama (UTP) – Sustainable Waste Management 2. Pontificia Universidad Catolica de Valparaiso, Chile – Sustainable Waste Management 3. University of West Indies, Trinidad & Tobago. 4. Phnom Penh, Cambodia – pilot course on environmentally sound waste management in schools. 5. Suez Canal University, Egypt – course on holistic waste management 6. LAC University Consortium of waste management, Valparaiso, Chile – sustainable waste management
M3.6 Implementation of pilot certificate courses initiated in one more region	Dec 2020	

M3.7 Implementation of pilot certificate courses initiated in one more region	June 2021	7. Pilot certificate courses on environmentally sound waste management with universities in Africa and Latin America
		8. University of West Indies: "Short Course on Integrated Solid Waste Management for the Caribbean Region" implemented.
		9. 12 entities in Thailand and 10 entities in Malaysia followed through with the plastic footprint training program as part of the SEA circular Project. Entities include: Thai organisations are: SAPPE Public Company Limited, S&P Syndicate Public Company Limited, Doi Kham Food Products Co. Ltd., Cosmos Brewery (Thailand) Co. Ltd., TPBI Public Company Limited, Sitex Industry Corporation Co. Ltd., The Sukosol Hotel, Six Senses Hotels Resorts Spas, Wieng Theong Municipality, Mae Fah Luang University, Mater Dei School and Wat Soi Thong School.
		10. Worked with GIZ and others for education programmes on waste separation, waste bank programme to increase material recovery and recycling and RDF project to convert waste to energy etc.
		11. The Pontificia Universidad Católica de Valparaíso (PUCV) training courses in environmentally sound waste management. Such as three certified courses were organised by universities with the support of the LAC Consortium, including in Chile and Trinidad & Tobago, 2020-2021
		i. Short Course on Sustainable Integrated Solid Waste Management in the Caribbean. Trinidad & Tobago (03/ 2020).
		ii. International Course on Sustainable Solid Waste Management in LAC (online). Valparaíso, Chile (12/ 2020 – 01/2021).
		iii. International Course on Sustainable Solid Waste Management in LAC (virtual). Valparaíso, Chile (06/ 2021 – 09/2021).
		12. Webinar: "Waste Management: Towards Safe and Environmentally Appropriate Disposal," organised by CEGRU (Uruguay), ISWA, and UNDP in July 2020. The work of the university consortium was presented by ISALUD and UNEP.
		13. Webinar: "Waste Management in the Context of COVID-19," focused on the global health challenges posed by COVID-19 and proper waste management practices. This event was facilitated by UNEP, PAHO/WHO, AIDIS, and ISWA/ARS, attracting 768 participants in 04/2020.
		14. International Congress: "Integral Waste Management in LAC," aimed at establishing interaction channels for exchanging experiences and research among participants at the regional level. This event was delivered by UAEM (Mexico), a founding member of the University Consortium, with participation from UNEP and experts from the consortium. 07/2021
		15. Webinar: "Organic Waste Management: Approaches and Experiences in the Caribbean

		Region". Organised by the University Consortium, in coordination with the University of the West Indies (UWI) in Trinidad & Tobago, and University of Technology (UTECH) from Jamaica, this event facilitated a dialogue on organic waste management in the Caribbean, with 51 attendees. 10/2021 16. Course: "Sustainable Solid Waste Management," offered in Panama.09/2019 17. Los Andes University (ULA/CIDIAT). Merida
M3.4 Good practices for environmentally sound waste management compiled and disseminated through UNEP-IETC website	Dec 2019	1. UNEP International Environment Technology Centre - LinkedIn 2. SDGs Online Festa – Facebook.2022 3. International Day of Zero Waste 30 March.2022 4. https://www.unep.org/ietc/news/story/sustainable-future-e-Waste 5. Future E-Waste Scenarios. 2019 6. 100 days to #BeatPlasticPollution campaign 7. Penang State: Plastic Disclosure Project Training Programme for City Councils and Municipalities 8. "Mottainai"_Rethink Your Waste (Nepali) 9. Documentary on Integrated Waste Management in Nepal: Climate Change, Disasters, Gender and Air Pollution 10. "Prayas (An Attempt)" broadcasted in the Nepal Television Programme 11. Waste Segregation Promotional Video Nepal 12. Towards Zero Waste: A Catalyst for delivering the Sustainable Development Goals 13. Towards a Zero Waste Society - UNEP Sustainability Action. November 2022 14. GENDER AND WASTE NEXUS 1: Experiences from Bhutan, Mongolia and Nepal (youtube.com). 2020 15. GENDER AND WASTE NEXUS 2: Gendered state of waste management (youtube.com)-YouTube.2020 16. GENDER AND WASTE NEXUS 3: Household's role in waste management (youtube.com)-2020 17. GENDER AND WASTE NEXUS 4: Towards gender-responsive policies on waste management (youtube.com).2020 18. GENDER AND WASTE NEXUS 5: Empowering women in the waste sector (youtube.com). 2020 19. SEA of Solutions: 2019, 2020, 2021, 2022 20. Gender and waste nexus: Experiences from Bhutan, Mongolia, Nepal.2020 21. Highlighted video of Global Dialogue. 12/2021 -EcoPro Exhibition 2021 – 8-10 /2021 22. How different Types of Waste are Handled &Its Creative Expression Changed 23. Tsangdra is a waste champion. 06/2022 - Tsangdra Learns about Waste 24. Bhutan - Ecology Note – Towards a Clean, Green and Beautiful Bhutan

		25. Future e-Waste Scenarios, 2019 26. A video on waste in SIDS countries was published to the website 27. Awareness video on mercury monitoring was developed and disseminated: https://www.youtube.com/watch?v=ZQHBkfUkVj8 28. Leaflet of the pilot project recycling center in Lake Toba, Indonesia 29. Video and documentary related to waste management in Nepal 30. A documentary on waste management in Bhutan were prepared and published on UNEP-IETCs YouTube channel 31. Single-use plastics, 06/2018 32. IETC@30 Webinar on Gender and Waste on 7 September 2022
M3.5 Updated tools, guideline, or methodologies for national and local level strategies and action plans available at the UNEP-IETC website	June 2020	In addition to other documents/news/and communication materials in Component A, B, C, D, hyperlinked with access to UNEP-IETC website. More examples are: 1. Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries, 2019 2. Waste to Energy: Considerations for informed decision-making, 2019 3. Waste to Energy Incineration, June 2020 4. South African Municipal Waste Management Systems: Challenges and Solutions 6. National Plastic Waste Reduction Strategic Actions for Indonesia
M3.8 Knowledge on environmentally sound waste management disseminated through convening dialogue on environmental technology	Dec 2021	1. Technology Solutions for Holistic Waste Management – A Global Dialogue with the Private Sector, Osaka, Japan. 21-23/05/2019 2. Beat plastic pollution for a cleaner Ocean, Bangkok, Thailand. 10/09/2018 3. Workshop on strategies and technologies for the sound management of municipal organic waste, in Buenos Aires, Argentina, in cooperation with ISWA. 09/09/ 2019 4. Panel on the phase-out of single-use plastics was chaired, Panama City, Panama, in cooperation with the Industry Association of Panama. 02 /10/ 2019 5. Global Workshop for Lesson Sharing under the International 6. Climate Initiative (IKI) for Waste and Climate Change Project, online, 2/12/2022 7. 3rd High-Level Forum on Waste Management in the Caribbean was convened in St. Kitts & Nevis. 16-17/10/ 2019 8. Regional Training Workshop on E-Waste Statistics in Arab Region, e-Waste workshop for policymakers and other stakeholders from West Asia and North Africa, Tunis, Tunisia. 12/2020 9. UNEP Sustainability Action: First Talk Event 10. UNEP-IETC MAFF Dialogue 11. EcoPro Online 2020 – UNEP Special Online Seminar 12. EARTH CAMP: E-Waste and International Cooperation 13. Worksheet with the Osaka City and Tennoji Zoo, World Environment Day (WED). 2022

		14. Brochures, leaflet, Graphic record, 3 videos (GEC). 06/2020- 03/2021 15. [Tennoji Zoo Event "Discover, Learn, Act! The relationship between animals and waste Sunday"](), 26/11/2023 16. Educational Videos 1: Tshangdra learns about waste 17. Educational video 2: Tshangdra is a waste champion 18. Educational video 3: How different types of waste are handled 19. Educational video 4: Greener way 20. Teaser video for social media
D) Waste and Climate Change Pilot Project in Mongolia, Bhutan, and Nepal	Development of report on waste and climate change (Baseline: 0, Target: 1)	1. One report covering 3 countries in the pilot project: [Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal. 2019]() 2. Sustainable waste management: A financial analysis, Bhutan. 07/2020 3. Waste Management technology prioritization in Nepal.
	Dissemination of synergies between the reduction of greenhouse gas and short-lived climate pollutants emissions, and sustainable waste management through events. (Baseline: 0, Target: 1)	1. Global Workshop for Lesson Sharing under the International Climate Initiative (IKI) for Waste and Climate Change Project. -2/12/2022 - on line **Bhutan:** 2. Training on Green Financing for Waste Management 3. Medial awareness training on waste management **Mongolia:** 4. Awareness-raising and peer-to-peer learning workshops with pilot project partners05/ 2022 5. Awareness-raising activities on 3R and food waste composting among school children- 9-10/ 2020 **Nepal:** 6. Two capacity building trainings on waste & Climate Change including waste database in Nepal - 15/12/2018 7. Conducted two days orientation workshop jointly with MoFAGA in Nepal-31/03.2019 8. Workshop on integrated waste management, database recording and strategy with broader stakeholders - 25-26/12/2019 9. Study tour to Birendranagar, Bheriganga, Lekbeshi and Gurbhakot and conducted policy meeting with the mayors and assistant mayors of the 4 municipalities. - 12/2019 10. Two-day workshops with different stakeholders in the four municipalities- 12/2019 11. Two-days workshop in integrated National waste management strategy and action plan- 31/12/2019 12. Capacity building workshop on accessing green financing for waste sector improvement- 14/07/2019

E) Reducing marine litter by addressing the management of the plastic value chain in South- East Asia (SEA circular)	Number of capacity development activities coordinated to facilitate the transition for less plastic wasted through increasing national collection/sorting/ recycling rates in target countries (Baseline: 4, Target: 9)	Achieved: see M5.1
	Number of plastic leakage assessments done to support establishment of baseline for national plastic waste leakage / implementation of national plastic waste roadmap. (Baseline: 6, Target: 11)	Achieved: see M5.3
	Number of national marine litter monitoring programmes / NAPs on marine litter and plastic waste supported in the region (Baseline: 1, Target: 7)	Achieved: see M5.3
	Number of Stakeholders (government, private sector, civil society) participated in networking and information sharing sessions (Baseline: 800, Target: 1600)	(Over)Achieved: see M5.2
M5.1 Capacity development on marine litter monitoring using harmonised regional methodology for data collection in SEA region	June 2022	1. [Let's #BeatPlasticPollution this World Environment Day!](#) Online, 05/06/2023 2. [Regional insights to unlock financing and advance investment in plastic circularity in emerging economics: South-east Asia,](#) online, 24 May 2023 3. [Regional Dialogue on Plastic Credits – A Circular Solution for Plastic Waste Management, Bangkok](#), 28/09/2022 4. [A Dialogue on Extended Producer Responsibility & Training on Human Rights Based Approach in the Plastic Value Chain](#), online, 23/08/2022
M5.2 Human rights based approach to responsible business	December 2022	Available at: [SEA circular Solving Plastic Pollution at Source in South-East Asia Resource Deck](#). For examples: 1. Marine plastic litter in East Asian Seas: Gender, human rights and economic dimensions

conduct along plastic value chain materials developed and disseminated		2. Plastics Toolbox: Business, Human Rights, and the Environment 3. Plastics, Human Rights, and Business Responsibilities Issue Brief 4. Business, Human Rights and the Environment in South-East Asia: Policy Training Resource Module 1: The Human Rights Dimensions of the Plastics Crisis 5. Business, Human Rights, and the Environment: A Checklist for Responsible Business Plastic Action
M5.3 Regional Assessment marine litter / plastic pollution in SEA region disseminated	June 2023	1. Status of Research, Legal and Policy Efforts on Marine Plastics in ASEAN +3 2. Perceptions on Plastic Waste 3. Assessing the Contribution of Plastic Credit Schemes
F) Promotion and implementation of circularity and sustainable waste management in the Caribbean	Number of regional guidance toolkit for strategic planning and national action in the Caribbean waste sector (Baseline: 0; Target: 1)	Action Plan for the UN Decade on Ecosystem Restoration, 2021-2030: European Commission and UNEP cooperation on: Action Plan for the Decade on Ecosystem Restoration[34]
	Number of sub-regional targeted assessments on waste management conducted (Caribbean) (Baseline: 1; Target: 2)	Solid Waste and Circular Economy Hub - IADB Data: a conglomerate of open data, which provides evidence of the evolution of the sector, its link with the SDGs, mitigation and adaptation to climate change. It seeks to support countries in their digital transformation for the design and implementation of effective public policies and innovative management models in the information age. It becomes a regional meeting point for the improvement of waste and circular economy statistics.
	Number of partners and stakeholders identified and engaged (Baseline: 3; Target 10)	Through the Inter-American Development Bank (IDB), 14 partners were engaged in the action, including UN agencies, regional organisers, and environmental initiatives. The partnership provided resources, facilitated knowledge exchange, and increased project visibility.

Source: project document, interviews, PIMS report, other reports, websites.

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[34] Apr 11, 2021: With one priority: Pollution, waste management and circular economy -Accelerating policies and practices to promote circularity and more sustainable consumption and production patterns by integrating a coherent policy framework, increasing knowledge and skills, identifying mechanisms to finance circularity and promoting consumers' behaviour change. Moving towards zero pollution and sound management of chemicals and waste through the closure of dumpsites, integrated policies and laws, and circular approaches such as eco-design and extended producer responsibility. Addressing circularity and zero pollution in key sectoral value chains, including plastics, food systems, building and construction and tourism.

139. As shown in the project results framework table above, all of the foreseen milestones were accomplished by the end of the project, except for Component B, which fell short in the "number" of pilot projects indicators. However, this shortfall was compensated for by similar ESTs demonstrating activities that achieved the expected results of expected pilots. The result framework table also shows that the project has exceeded some of its targets, for instance, extra three universities have conducted or initiated training courses on waste management, and additional fourteen country and city level waste management strategies and planes were prepared. A detailed assessment of the project outputs is available in Section F: Efficiency.

140. The assessment of the achievement of outputs, outcomes and the likelihood of impact, is as follows.

Availability of Outputs

141. **Output A: Gain in knowledge and awareness about environmentally sound methods and good practices in waste management via access to the GWMO II, RWMOs, and reports and guidelines - is assessed as fully achieved.**

142. The GWMO II and four RWMOs, and Electrical & Electronic Waste Outlook in West Asia 2050, were launched and available in the UNEP-IETC and project partner websites for public access. They provide valuable resources that support informed decision-making. These outlook documents contribute to the global knowledge pool, guiding practitioners, policymakers, and researchers in their efforts to implement sustainable waste management practices. These sustained accesses to knowledge foster continuous improvement and innovation in waste management worldwide. According to interview responses, they have been quoted and referred to globally, and by specific regions, as guides for their waste management planning.

143. As detailed in the project results framework table, various updated and new tools, guidelines, methodologies for national and local level waste management strategies and action plans, are available to support realization of resource circulation and the circular economy. These resources incorporate the principles of the 3Rs (reduce, reuse, recycle/recover), utilise a combination of waste management techniques and technologies, to treat different types of wastes in environmentally, financially, and socially sustainable manners.

144. The training courses conducted, as well as those planned for future knowledge dissemination through various stakeholders and initiatives, facilitated the expansion of best practices and tested ESTs to other countries and regions via South-South cooperation. This expansion will further enhance knowledge and awareness of environmentally sound waste management practices internationally.

145. **Output B: Availability of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches to waste management – is assessed as achieved.**

146. In total twenty-one[35] national and city-level waste management strategies have been prepared and handed over to the relevant government bodies. The mentioned Project Closure Report (PCR) also detailed the project developed plans, policies, and recommendations tailored to specific geographic contexts. Stakeholders, including local municipalities and environmental agencies, have received these strategies for implementation in subsequent project phases. The project has extended necessary

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[35] The number of tools, guidelines, and methodologies indicated in the Project Closure Report is substantial, though a few were not provided or accessible for the TR. Among these, one notable resource is the "Electrical & Electronic Waste Outlook in West Asia 2050." The review, however, categorised this resource under both Output A RWMOs and Output B.

support in the country or city. Further actions are deemed to be in-country considerations and decisions.

147. Several guidelines and reports have been prepared and are available on the UNEP-IETC and implementing partner websites. Support has been provided to countries in preparing their waste management strategies. Pilot demonstration projects have showcased several environmentally sound technologies for managing compostable organic waste, biodegradable waste, municipal solid waste (MSW), hazardous waste, e-Waste, and construction and demolition waste. Additionally, pilot training courses on waste management were successfully conducted in countries in LAC, Asia countries. Dialogues on environmentally sound waste management took place, involving a variety of stakeholders.

148. The project adapted its implementation to the actual local context. More reports were developed to address emerging waste streams, such as e-Waste (recovery materials from phased out solar panel for India/Rwanda), plastics (marine litter recycle for Sri Lanka/Jamaica/Cambodia), as well as new types of waste generated by the COVID-19 pandemic.

149. As for upscale and replication of the waste management knowledge, the continuous and further training courses were conducted, and pilot projects were initiated in their regions or respective countries, with the help and support of UNEP/UNEP-IETC and/or other implementing partners network and resources. One example is that Khuvsgul (a northern province of Mongolia) used the same approaches[36] as the Ulaanbaatar study on organic waste composting to develop its waste composting regulations. Additionally, 60-70% of the 21 provinces in Mongolia improved their waste management based on the lessons learned from developed Ulaanbaatar Regulation on Municipal Solid Waste Cleaning, Segregation, Collection, Transportation, Recycling, Recovery, and Disposal.

150. In-country implementing organisations involved in pilot projects have expressed a positive outlook on the potential to upscale and replicate the project. This optimism is based on the developed proposals and the knowledge obtained from the project. Among many examples, developing circular waste management strategies to mitigate emissions and environmental impacts of livestock waste in Darkhan Uul, Mongolia, was based on the success of a pilot project, best practices in Ulaanbaatar city.

151. Thus, the TR assesses that in-country technical and advisory services for designing and implementing environmentally sound technologies and approaches to waste management have been made available to countries via different tools and ways, and therefore, assesses Output B to be achieved.

152. **Outputs C: Capacities for mitigating the climate, environmental, and social risks associated with the waste management sector, including for affected vulnerable and gender groups - is assessed as fully achieved.**

153. Gender-responsive and vulnerable group inclusive waste management solutions have been emphasised in the WMOs, guidelines, and developed waste management strategies and action plans. Stakeholders, including those in the informal waste management sector, have been informed and equipped with knowledge through training and awareness campaigns conducted by various project communication activities. The highlight is the project developed Gender and Waste Nexus report and policy brief. They have been broadly disseminated through the publication, training, and online media accesses.

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[36]Guidebook for Conducting Waste Composition Study at Source- (Developed Based on Ulaanbaatar Household Waste Composition Study)

154. The waste-to-energy guidelines and the integration of waste and climate change approaches demonstrate a thorough linkage between climate mitigation and integrated waste management solutions.

155. From the survey and interviews, in the participation of the project activities, including trainings, workshops and awareness campaigns, the project demonstrated the gender balance and consideration of human rights. The project is positively recognised for considering human rights and social fairness in the implementation countries, as well as by academic researchers.

Rating for Availability of Outputs: Highly Satisfactory

Achievement of Project Outcomes

156. **Direct Outcome: Increased use of available products and knowledge in waste management by project stakeholders for policy making and implementation, and research in project countries – using UNEP guidance – is assessed as achieved.**

157. From interviews and media posts, it was noted that although the GWMO II was launched during the TR, there was substantial interest from the UNEP network, ISWA member countries and organisations, and waste management practitioners in the information released. This interest also provided an opportunity for the countries that contributed data to the Outlook preparation to gain a better understanding and comparison of different waste management approaches, aiding in their adaptation to local economic growth and the lifestyles of their citizens.

158. The TR did not conduct all the interviews with country stakeholders[37]. Some usage of available products and knowledge has been reported, for example, the usage of the RWMOs for the preparation of the waste management strategies; the usage of the Ecology Note for the training courses in schools. Some of the waste management strategies are being implemented, for example, Bhutan, Indonesia, and Sri Lanka.

159. A significant number of training courses and awareness campaigns have been conducted. The advisory services and knowledge products provided by the project guided the establishment of formal waste management sectors and the adoption of the waste-to-resources approach. Among many examples, Training Module: Guidelines for Safe, Closure and Rehabilitation of Municipal Solid Waste Dumpsites in Sri Lanka, and "Bottle-to-Bottle Recycling" to boost Sri Lanka in the transition to Circularity in Plastics, highlighted this achievement.

160. The TR did receive evidence about the usage of several other reports and analysis. For instance, researchers in universities and consultants in the waste management sector have utilised UNEP-provided methodologies to strengthen their data generation, advising policymakers and private industry on topics, such as GHG reduction from viable ESTs and waste business modelling through green financing analysis.

161. **Project Outcome: Policies and practices and legal frameworks for waste prevention and sound management developed and implemented by stakeholders in project countries – is assessed as partially achieved.**

162. Some countries have started implementing national waste management strategies, as mentioned above. Similarly, some of the city-level waste management strategies are being implemented, for example, Hyderabad – India, Negombo – Sri Lanka, New Castle – South Africa.

163. Some country waste management strategy implementations were not fully

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[37] Reasons are as mentioned in the Section II Review Method – Limit of Method

commenced, primarily due to key stakeholders, such as governments, facing funding shortages or personnel turnover issues. However, this does not compromise the result in project's outcome level but rather highlights to a sustainability issue.

164. Therefore, the project outcome is assessed to be partially achieved.

Rating for Achievement of Project Outcomes: Satisfactory

Likelihood of Impact

165. **Impact: Significantly reduced negative impacts from waste on environmental and human health - – is assessed as likely.**

166. The Impact is an extremely ambitious target that can only be achieved through a coordinated long-term effort (including policy change) rather than the results of a five-year project.

167. Owing to the knowledge provided by the different knowledge products (Outlooks, guidelines, training materials, and other reports); the support provided via demonstrating the pilot projects; the preparation of the waste management strategies, action plans; and capacity building via the training courses on waste management; the project contributes to the intended impact.

168. As mentioned above, from site visits and interviews, it is evident that despite remaining changes, there is strong commitment to the future implementation of waste management strategies, such as one example, the introduction of an Eco-tax to gather domestic resources for implementing the waste management plan in Mongolia. These commitments are expected to be maintained or expanded upon in the future. The likelihood of achieving impact is therefore assessed to be likely.

Rating for Achievement of Likelihood of Impact: Likely

Rating for Effectiveness: Highly Satisfactory

E.   Financial Management

Adherence to UNEP's Financial Policies and Procedures

169. According to the interview, and documents provided to TR, there is no evidence of lack of compliance with UNEP's financial policies, standards, and procedures.

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

Completeness of Financial Information

170. The project established a budget plan based on the funding resources agreed with donors, primarily GoJ, IKI, and UNEP divisional and regional budgets. The budget planned at the design stage was subdivided by outputs/activities, however, not referred into Workplan and any Monitoring Plan.

171. As per the financial document review, UNEP-IETC performed complete fund management function including budget, commitment, payments and recording of expenditures. Two Revisions of the funding and expenditure were integrated to the project financial updates and management.

172. The financial management-related documents were available and provided to the TR, as detailed in Financial Document Part of Annex IV-Documents Consulted in the TR.

173. Referring to the above Table 5, including in-kind and co-financing, the project used 85% (i.e. USD 17,142,642, as of 22 April 2024) of the planned budget USD 20,198,320.

According to Table 9 below, which details expenditures (excluding in-kind and co-financing) by Outcome/Output and compares planned versus actual expenditures by components (as of 22 April 2024), Components A and B underspent their planned funds, while Components C and F overspent their planned budgets. The causes of the financial discrepancies between the planned and actual expenditures are detailed further in Section F: Efficiency.

Table 9: Expenditure by Outcome/Output

Component/output	Estimated cost at design (USD)	Actual Cost/ expenditure (USD)	Expenditure ratio (actual/planned)
Component 1/A	1,586,732	1,083,197	68%
Component 2/B	13,955,410	12,017,731	86%
Component 3/C	737,997	1,784,139	242%
Component D	410,054	0	0
Component E	1,784,100	0	0
Component F	380,385	739,977	195%
Total	**18,854,678**	**15,625,044**	**83%**

Note: the expenditures from secured fund, excluding in-kind and co-financing.

Table 10: Expenditure by Year

Year	Expenditures (USD)	Expenditure ratio (year/total)
2018	853,345	5%
2019	2,756,624	18%
2020	1,924,005	12%
2021	3,426,661	22%
2022	4,556,576	29%
2023	1,979,922	13%
2024	127,911	1%
Total	**15,625,044**	**100%**

Note: the expenditures from secured fund, excluding in-kind and co-financing.

Table 11: Expenditure Breakdown by Category

Expenditure categories All figures as USD	Grand Total Output 1	Grand Total Output 2	Grand Total Output 3	Grand Total Output F	Grand total PoW521.1	Ratio to Total
Staff and Other Personnel Costs	462,435	5,833,148	625,013	476,744	7,397,340	47.3%
Travel	60,485	235,520	187,066	153,660	636,731	4.1%
Contractual Services	24,999	198,960	29,695	14,585	268,240	1.7%
Operating and Other Direct Costs	78,926	335,004	144,540	35,063	593,533	3.8%
Supplies Commodities and Materials		462			462	0.0%
Equipment Vehicles and Furniture		11,361	1,114	5,524	17,999	0.1%
Transfer/Grant to IP	386,313	4,507,369	591,385		5,485,067	35.1%
Grants Out		134,271	69,832		204,103	1.3%
PSC	66,776	735,563	131,363	54,401	988,103	6.3%
IP-PSC	3,263	26,073	4,130		33,466	0.2%
Total	**1,083,197**	**12,017,731**	**1,784,139**	**739,977**	**15,625,044**	100%

174. The summary of the expenditure proved the incurred was necessary, that funds were used in a thrifty and cost-effective manner and that the details provided correspond with the financial records. The project team was well informed of accounting coding

and progress ensuring efficient coordinating the project reporting.

Rating for Completeness of Financial Information: Highly Satisfactory

Communication Between Finance and Project Management Staff

175. As per the email records provided, the project administrative reports, the communication between the project technical management and the related administrative and financial positions were reported to be smooth and conducive to proper project implementation.

176. Interviewed implementation partners reported the disbursement was smoothly. There was one delay reported due to change to UMOJA 2. A speed up was made to ensure the project activity.

Rating for Communication Between Finance and Project Management Staff: Highly Satisfactory

177. In summary as Table 12 below, the Financial Management is accessed as highly satisfactory.

Table 12: Financial Management Table

Financial management components:	Rating	Evidence/ Comments
1. Adherence to UNEP's policies and procedures:	**HS**	
Any evidence that indicates shortcomings in the project's adherence[38] to UNEP or donor policies, procedures or rules	No	No evidence is available
2. Completeness of project financial information[39]:	S	
Provision of key documents to the reviewer (based on the responses to A-H below)	S	
A. Co-financing and Project Cost's tables at design (by budget lines)	No	Budget was divided by resources of donor, regional office and UNEP division lines, not by activities or outputs.
B. Revisions to the budget	Yes	2 revisions financial information were available: Revision No. 1-27/12/2021, Revision No. 2-13/12/2022
C. All relevant project legal agreements (e.g. SSFA, PCA, ICA)	Yes	The SSFA and PCAs are available:
D. Proof of fund transfers	Yes	The transfer records are available:
E. Proof of co-financing (cash and in-kind)	Yes	Co-finance_ JPO Expenditures report
F. A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level)	Yes	The detailed breakdown summary tables are available by year, by

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[38]If the review raises concerns over adherence with policies or standard procedures, a recommendation maybe given to cover the topic in an upcoming audit, or similar financial oversight exercise.
[39] See also document 'Criterion Rating Description' for reference.

Financial management components:		Rating	Evidence/ Comments
			components/outputs, by nature of expenditure categories
G.	Copies of any completed audits and management responses *(where applicable)*	N/A	
H.	Any other financial information that was required for this project (list):	N/A	
3.	**Communication between finance and project management staff**	**HS**	
Project Manager and/or Task Manager's level of awareness of the project's financial status.		HS	Based on feedback received
Fund Management Officer's knowledge of project progress/status when disbursements are done.		N/A	No evidence was provided either way
Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.		N/A	No evidence was provided either way, but no financial management issues were reported either.
Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports.		HS	Communication between the project technical management and the related administrative and financial positions were reported to be smooth and conducive to proper project implementation
Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the review process		HS	The required documents responsive clarifications were provided.
Overall rating		**HS**	

> **Rating for Financial Management: Highly satisfactory**

F.   Efficiency

178. As specified in Table 8: Project results framework, the project implementation efficiency can be summarised as follows:

179. **Component/Output A: Knowledge products on environmentally sound methods and good practices**

180. GWMO II and the four planned RWMOs were completed and launched as indicated in Table 13. Compared to the milestones outlined in the project document (p.29), three RWMOs were published ahead of schedule, while GWMO II was published 3.5 years later than planned. Additionally, two more RWMOs were published within the project framework.

Table 13: Launching of the WMOs

WMOs	Date	Launching Event
GWMO II -2024	28 February 2024	UNEA - 6
Africa WMO	5 June 2018	World Environment Day, Sustainability Week
Latin America and the Caribbean WMO	9-12 October 2018	XXI Forum of Ministers of Environment from LAC
Small Island Developing States WMO	13 March 2019	4th Session of UN Environment Assembly (UNEA-4)
West Asia WMO	01 June 2020	Online (COVID-19 restrictions in place)
Electrical & Electronic Waste Outlook in West Asia 2050[40]	30 March 2023	UNEP RO for West Asia and UNITAR jointly in the inaugural International Day of Zero Waste.

181. The delay in releasing GWMO II was driven by several factors, including the COVID-19 pandemic, which necessitated online coordination meetings and discussions that extended the time required to reach agreements for the outlook development participants. Additionally, staff turnover at UNEP-IETC, the author's absence due to illness, and the need for expert editing work resulted in the delivery taking longer than planned.

182. Achieved as planned, sixteen tools and guidelines or methodologies were developed in national and local level in supporting, providing practical guidance for stakeholders in waste management, such as e-Waste, Waste compositing, Material resources from electric vehicles, and Teacher's Guide for Ecological Education, etc.

183. It is noticed that some countries' waste management knowledge and best practices, have been disseminated via other international initiatives, such as food waste composting technologies have been introduced via UNDP project to Asia.

184. Component/Output B: Provision of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches

185. Surpassing the planned target of five, twenty-one national and/or city-level waste management strategies were prepared. These included for, inter alia, Pandang and Lake Toba in Indonesia, Negombo in Sri Lanka, Varanasi and Hyderabad in India, and National Strategy on Organic Waste Management in Chile, Myanmar's National Waste Management Strategy, Sri Lanka's National Action Plan on Plastic Management, and Enhancement of plastic recycling in Jamaica's private sector. Additional results were undertaken in SACEP countries (waste management Roadmap), regulations in Kyrgyzstan, Nepal, Uruguay, Cambodia, Tanzania, thus demonstrated broad geographical coverage of this project.

186. Falling short of planned target seven due to COVID-19 challenges impacting the implementation of sound waste management, only three pilot demonstration projects were successfully implemented by the project's end in Bhutan, Mongolia, and Nepal. However, as mentioned earlier, many other demonstration/piloting activities were advanced in various locations, including Varanasi, Maldives, Jamaica, Vietnam, South Africa, Chile, Iraq, Myanmar, Cambodia, Malaysia, Thailand, Argentina, and Sri Lanka. The demonstrations were also at the project level, i.e. a framework of a set of results-oriented actions – using tools and ESTs for positive environment changes. The TR

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[40] The joint UNEP-UNITAR 2050 Electronic and Electrical Waste Outlook in West Asia provides two contrasting future scenarios for e-Waste management in Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, State of Palestine, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, and Yemen. It is a regional outlook in EE waste sector. This Outlook provides projections for e-Waste generation and challenges of managing e-Waste in an economically diverse West Asia region. It also provides a stepwise approach for countries to manage e-Waste in an environmentally sound manner.

considers the pilot projects were partially achieved.

187. Component/Output C: Promotion and dissemination environmentally sound practices and methods

188. Beyond the target twenty-two, more awareness- raising materials on environmentally sound waste management, including gender- related materials, are available at the UNEP IETS website.

189. Eight pilot certificate courses were overtaken compared to the planned six. The courses covered regions of: Latin America and the Caribbean, North Africa, and Asia-Pacific. Course material on waste management has been integrated in existing curriculum in a few cases, for example, the School of Engineering of UNAM, the largest university in Latin America and the Caribbean region, has included integrated waste management in the existing curriculum of the Specialization degree on Sanitary Engineering; Sichuan University adapted its Sustainable Urban System Programme curriculum to include holistic waste management. A student's forum on waste management and technology was also initiated in Tsinghua University.

190. Fourteen dialogues for disseminating knowledge of environmentally sound waste management were recorded, surpassing the planned target of nine.

191. **Component/Output D:**

192. The IKI-funded pilot project did not produce one planned deliverable, a full-scale report on waste and climate change[41]. However, it generated several national-level reports, such as 'Sustainable Waste Management: A Financial Analysis for Bhutan.' This report provided insights into the link between climate bonds and viable ESTs for the treatment of municipal solid waste and similar types of waste.

193. The IKI pilot project successfully met its target by organizing nine events as planned. These events focused on disseminating synergies related to the reduction of greenhouse gases and short-lived climate pollutants, as well as waste management.

194. **Component/Output E:**

195. Through cooperation with the SEA circular initiative, seven city-level plastic waste flow analyses were conducted, surpassing the project's target of five. Additionally, fourteen national action plans and marine litter monitoring programs were developed, exceeding the original plan by five. These achievements were realised across all countries covered by the project, demonstrating significant progress in plastic waste management. Moreover, at least ten capacity development activities were organised, engaging a total of 2,040 participants, which doubled the planned target of five. These activities facilitated the sharing of information on plastic waste management through established networks, contributing to enhanced knowledge and collaboration in this critical area.

196. Component/Output F:

197. Supported by the EU Action for the Caribbean (funded by the 11th European Development Fund), the UNEP LAC office contributed to the knowledge and policy engagement component of the Action. This involved aligning activities with the UNEP 521.1 project. The deliverables—comprising a Caribbean regional waste management assessment, strategic planning, and a national action guidance toolkit—met the planned targets. Furthermore, the targeted number of partners was exceeded.

198. In summary: All milestones under Components A, C, D, E, and F have been achieved,

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[41] The monitoring Indicator of UNEP proposal to IKI for project Component D did not cover the same milestone in project Revision No.1- Development of one report on waste and climate change.

with some even overachieved. Component B was partially achieved, primarily due to COVID-19 challenges that hindered the identification and implementation of the pilot project within the project timeframe.

199. The financial information in Table 9 indicates that, expenditures in cash, Component C overspent by 142% and Component F overspent by 95% of the secured budget. However, the other components spent less than the planned secured budget[42]. In total, as indicated in Table 9, 83% of the secured funding has been spent on the entire project. This proved that the project successfully achieved the milestones due to flexible and adaptive management among the interlinked project activities and Outputs. Adjustments were made to the project implementation to ensure the best cost efficiency.

200. Due to COVID-19 pandemic restrictions, while logistics-related costs and carbon footprint decreased, digital activities/means/tools costs increased. This was primarily for web-based communication, awareness-raising, and knowledge dissemination events on environmentally sound waste management practices. Activities included preparing dedicated waste management websites, developing waste and knowledge databases, and offering online training courses.

201. Altogether, TR deems project implementation to be highly efficient.

Rating for Efficiency: Highly Satisfactory

G.   Monitoring and Reporting

Monitoring Design and Budgeting

202. The project document entails a Monitoring Plan (p.40). The 'Monitoring Plan and Budget' table includes columns for information on baseline and target indicators, data sources, data collection methods, frequency, budget and responsible office/staff. The table follows the project logical framework, and therefore, commences at the Outcome level and then the three Outputs. For each of these, the baseline and target indicators, as well as data sources and data collection methods, frequency and responsible office/staff have been mentioned. UNEP-IETC was responsible for carrying out monitoring of project implementation. The UNEP-IETC was planned to keep the IAB updated biannually. Further, the UNEP-IETC was also to keep the Project Steering Committee informed and seek guidance from it for project implementation every 6 months. PIMS reporting was planned to be carried out every 6 months. MTR (in mid-way through implementation) and Terminal Evaluation (TE, at the end of the project) were foreseen in the project document. Whereas the budget has been planned for both MTR and TE. No budget details for activities in Workplan and Monitoring Plan.

203. The Monitoring Plan is general and lacks operational details, such as the methods of data collection. The frequency of data collection is biannual, which aligns with the Monitoring Plan indicators set at the outcome level for Expected Accomplishment 5(b). However, this setup does not negatively impact the monitoring design, as the UNEP PIMS reporting system ensures 6 monthly reporting, effectively tracking the project implementation and deviations from planned progress to a certain level.

204. The Monitoring Plan is managed at the UNEP/IETC level and lacks sufficient engagement from partners, participating countries, cities, and organisations. This

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[42] Components D and E were add-ups activities of Components B and C from Revision No. 1. The concerned outputs were supported by the Component B and C budget; Hence, in the financial expenditure breakdown, Component C overspent compared to the plan, and Components D and E had no costs accounted for.

deficiency in collaboration may make measuring project progress challenging.

205. The Monitoring Plan does not include timelines for achieving and monitoring the indicators. The timelines for achieving milestones are specified in the project's Logical Framework.

206. Budget figures foreseen for the monitoring of each Output are not mentioned in the plan, which should have been mentioned, to ensure their implementation, as at the time of preparation of project document, it was not known that several activities would be paused and/or would need to be done differently due to COVID-19.

Rating for Monitoring Design and Budgeting: Satisfactory

Monitoring of Project Implementation

207. UNEP-IETC has the main responsibility for carrying out monitoring. However, there was a lack of adequate human resources at the UNEP-IETC; four (out of five) Professional staff posts at the UNEP-IETC at the time of project formulation do not exist at the UNEP-IETC anymore. A Junior Professional Officer[43] was in-charge of the project as Programme Management Officer. Besides the annual and/or bi-annual reports which the UNEP-IETC is supposed to receive from implementing partners, as mentioned in the Project Cooperation Agreements with the implementing partners, no other form of monitoring was established.

208. The initial project implementation structure planned to have regular oversight and guidance, firstly via the PSC, and then via the IAB on a biennial basis. However, the PSC was not established, as the UNEP-IETC considered the IAB to be adequate for oversight and guidance. Therefore, no reporting to the PSC took place. According to the ToR of the IAB, one meeting is foreseen to take place every two years. The IAB meeting took place twice respectively in 2019 and 2021 since the commencement of the project. Thus, reporting to the IAB is not considered to be an adequate instrument for monitoring and reporting, considering that for a project planned for 48 months (actual 61 months after 2 extensions), one guidance, oversight and reporting meeting took place after one year of project implementation and the second one was planned to take place towards the end of the project.

209. Some project activities were delayed, UNEP-IETC office was closed for 15 months due to COVID 19. No monitoring-related activities were conducted since March 2020 in that period. Virtual means were conducted for exchanging the project progress. The planned MTR was carried out from January to August 2021, with a delay of around seven months compared to the initial monitoring plan half-way through project implementation. This delay of MTR and TR caused by COVID- 19 did not negatively affect the rating of project monitoring, according to the UNEP evaluation guide.

210. As the Monitoring Plan lacks elements mentioned in the design review; UNEP-IETC did not have, amongst others, an overall list of all project countries, the status of project activities, details of the extended pilot projects, or the respective contact persons/country focal points; readily available. This is considered a serious deficiency in the monitoring and reporting of project activities.

211. PIMS reporting was carried out in a 6 monthly manner as required by UNEP. The information contained in the PIMS reports does not contain all details, for example, details on the pilot projects, deliverables from the implementing partners, status of

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[43] Note of the Review Consultant: It is emphasised that this point in no way intends to undermine the competency of the PM, but intends to point out the reduction in human resources at the UNEP-IETC during the past 5 years, and the implication thereof on monitoring of project implementation.

project implementation in the countries – achieved percentage of implementation.

212. Reporting to donors was carried out on an annual basis. The Annual Report did not contain same information about the status of activities according to the logical framework of the project, which the donor was actually funding. It was used as an additional supporting document to the project actual report. Financial reports were also provided to the donors on an annual basis.

213. Implementing partners sent their reports to their respective focal organisation as per their respective Agreements.

214. Besides the PIMS reporting, there is no indication of the logical framework being used as a basis for monitoring.

215. Overall, the TR acknowledges that reporting was conducted as planned and required; however, there is significant potential for improvement in the quality of project reporting, engagement and follow-up monitoring activities, particularly with project partners.

Rating for Monitoring of Project Implementation: Moderately Satisfactory

Project Reporting

216. Based on the evidence provided, regular monitoring in PIMS was completed. UNEP-IETC 12th IAB (held in December 2021) meeting report was provided to TR, however there was no evidence showing that any project report was reviewed during the IAB meeting. The quality of the PIMS reporting was not sufficiently detailed, featuring extensive substantive reporting but minimal financial information. No report abstracted from the UNEP's new IPMR system was provided for the TR.

Rating for Project Reporting: Satisfactory

Rating for Monitoring and Reporting:	Satisfactory

H. Sustainability

217. The Project Closure Report (PCR) outlined a transition plan for handing over the project results to stakeholders. This plan detailed the roles, responsibilities, handover period, and the communication strategy to ensure effective implementation. Additionally, it mapped out knowledge management strategies to preserve the project's legacy. The transition plan also emphasised Long-Term Engagement and Adaptation Strategies, aimed at fostering ongoing collaboration with stakeholders in waste management and continuing the project's achievements even after its conclusion.

Socio-political Sustainability

218. From interviews and document reviews, no country reported that the project's supported activities were halted by national or regional conflicts or political upheavals. Local communities and women have been continuously engaged in the country's and city's waste management operational agenda. The engagement of vulnerable groups has been also promoted which is benefited from the awareness and guidelines provided by UNEP to the policy makers and waste management practitioners.

219. The GWMO II and five RWMOs have been launched, published, and are available on various websites for public access. The national and city waste management strategies, roadmaps, awareness-raising materials, and the curriculum are available to the public and youth. They present a high potential sustaining the project's outcomes to reach its intended impact.

220. Socio-political risks to the implementation of training courses and the strategy on waste management in the countries are considered to be low to non-existent. All the interviewed implementing partner organisations expressed their high interest in the implementation of training courses and waste management initiatives in their respective countries.

Rating for Socio-political Sustainability: Highly likely

Financial Sustainability

221. Adequate funds ensured the production of GWMO II and RWMOs. However, from the interviews, it was evident that the editing time and costs were underestimated during project implementation. Since a detail budget for each activity was not included in the project's design, how the budget was adjusted between different project activities to fulfil the actual needs cannot be found in project reports. Additionally, more deliverables became available due to the mobilization of extra funding.

222. The communication activities to enhance the visibility of the GWMO II, the RWMOs, and other project deliverables were not in a separated budget line but integrated into the production budget. The future dissemination and promotion of these project outputs will be carried out through commitments from various partners and governments. Hence the reach out sustainability is likely high.

223. The pilot projects were funded by the funds provided by IKI, and other piloting/demonstration activities were funded by donors through the UNEP Regional Offices. The funds were sufficient for the planned project activities. From the interview and project report, it is noted that some pilot projects have designed project proposals for the identified efforts to continue sustainable waste management, offered by the project activities and trainings[44]. They also indicate funding opportunities for following up on the project, in cooperation with other ongoing projects - such as through the partnership with Inter-American Development Bank (IDB), UNDP and World Bank funded ones. Financial possibilities exist for upscaling and replication after project completion. The likelihood of maintaining the pilots after project completion is high.

224. Some countries reported the delay of the full-scale waste management implementation due to shortage of funding. Some countries, notably, Mongolia national government has taken the financial measures, including an eco-tax, to ensure the implementation of developed policies, e.g. Regulation on Municipal Solid Waste Cleaning, Segregation, Collection, Transportation, Recycling, Recovering, and Disposal.

225. Training and courses, along with public communication materials, were prepared with sufficient funds. The training workshops and courses were financially implemented adequately. This was partly because some of them were conducted virtually due to the impact of COVID-19, which reduced the actual costs related to logistical arrangements. The project partners and implementing organisations can continuously use them in their ongoing business; for example, universities have integrated this content into their regular curriculum, and waste management bodies used them in the staff trainings.

226. The implementation of developed waste management strategies and action plans largely relies on financial planning by the government and the private sector. Some countries and cities, such as Bhutan, Negombo, have started implementation. In some countries, although the action plan included costing and funding analysis, they still

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[44] For instance: Assessment of Green Financing Opportunities for Waste Management in Bhutan; Sustainable waste management: A financial analysis for Bhutan; Green Financing for Integrated Waste Management; and How to Write an Effective Grant Proposal?

face financial challenges to implement them.

227. The UNEP-IETC team has been already in the process of developing a project proposal, titled "Integrated Solid Waste Management towards Zero Waste" for the next phase of the project under POW 2022-2023. This proposal aligns with the objectives of the MTS 2022-2025, particularly focusing on the goal of Towards a Pollution-Free Planet.

228. Altogether, the review deems the financial sustainability of the project to be Moderately likely.

Rating for Financial Sustainability: Moderately Likely

Institutional Sustainability

229. The project design was built upon the long-term mandates of the project's executing agency, UNEP-IETC, and its partners. Its fully-fledged sustainable plan is driven by the engagement of implementation partners, utilization of existing networks, linkage with other UNEP umbrella projects and core initiatives, knowledge dissemination, and capacity building, etc.

230. The project design included a "Sustainability, Uptake, Scaling Up, and Replicability" section. Evidence and feedback from implementing partners and beneficiaries demonstrated that institutional sustainability for the project activities is assured through capacities built during project implementation, the implementation of education and awareness outreach strategies, and by the policy and institutional frameworks established in the waste management strategies and action plans.

231. There is also an issue with capacities at the institutional level, highlighted by staff turnover in some governments. This has prompted a future effort to focus on institutional-based capacity building, such as creating a capacity building manual to ensure new staff can seamlessly integrate into waste management implementation.

Rating for Institutional Sustainability: Likely

Rating for Sustainability (Likelihood): Likely

I.   Factors Affecting Performance and Cross-Cutting Issues

Preparation and Readiness

232. No issues surfaced regarding preparation and readiness of the project. This project is a continuation of three previous UNEP-IETC projects. Implementing partner organisations were already identified and involved in implementation of the previous projects. Work on the RWMOs had commenced already within the framework of the previous project 531.1. Most of the contributors to the GWMO II were already involved in the preparation of the GWMO I and/or the RWMOs.

233. The project included a funding mobilization plan, which has enabled the acquisition of additional funds to support new activities identified within the project framework.

234. Multidisciplinary expert team, government, and private sector provided the inputs, and the project proposal was reviewed in 10th IAB. The potential target participating countries and regions were pre-identified, and their priorities and needs were consulted. Hence their suggestions and local context were integrated, enabling a comprehensive project design and realistic implementation.

Rating for Preparation and Readiness: Highly Satisfactory

Quality of Project Management and Supervision

235. UNEP-IETC is the main implementing agency of the project. Implementation is carried out with the support of the UNEP ROs, as well as implementing partners, such as the Asia Foundation Mongolia, GEC, GRID-Arendal, ICLEI South Asia, IGES, ISWA, LEAD Nepal, WWF Bhutan. The UNEP-IETC has signed project cooperation agreements with some of the implementing partners for in-country implementation directly; in some other cases, the implementing partners in turn coordinate the in-country implementation with other implementing partner, for example, the UNEP ROs with in-country stakeholders, the IGES with ICLEI South Asia (in India), the GRID-Arendal with stakeholders in Bhutan, Mongolia and Bhutan, or the ISWA with the contributors of the GWMO II. All the implementing partners were already on board within the framework of the previous projects and are well versed with the requirements for the project, as well as their roles and responsibilities.

236. All the interviewed stakeholders appreciated their respective cooperative work with the various collaborating agencies, inter alia, including UNEP-IETC, IKI, TAF, IGES, ISWA, GRID-Arendal.

237. As mentioned earlier, a PSC was foreseen in the project document, but not established, as guidance and oversight by, and reporting to, the IAB was deemed to be sufficient. However, the IAB meetings took place on a biennial basis; during the project, two IAB meeting were held. And from the available IAB meeting agenda, there is no evidence that IAB provided specific advice on project, instead in an IETC organisational level.

238. Project activities were carried out as planned, by the implementing partners. The UNEP ROs were involved in the project activities; however, they were also involved in the implementation of other projects. As indicated in the MTR, there was a huge untapped potential at the UNEP-IETC in terms of information and knowledge management, as well as project monitoring and quality of reporting. All project implementation-related information was not readily available at any given point of time. This was improved in the 2nd half implementation phase after MTR, however the created monitoring tool (a mentioned excel file) did not sufficiently meet the need. For example, during the review, project (implementation) related information was not always available at the UNEP-IETC and still scattered with implementing partners. It was similar in the case of the waste management strategies and action plans, as their status of implementation was not known in most of the cases.

239. A steep decrease in staff number at the UNEP-IETC was reported until the time of MTR. At the TR time, staff at the UNEP-IETC has been reduced by four professional staff posts, leaving one professional staff at the UNEP-IETC, leading to additional tasks and responsibilities to this professional staff, which included additional managerial tasks, besides project-related tasks.

240. The project reporting to UNEP was 6-monthly conducted and provided the opportunity to review the project status with the partners. However, this has not been thoroughly summarised and recorded.

241. Due to COVID-19, travel restrictions were in place. Remote tools were utilized to facilitate regular updates and to convene stakeholders for discussions on project implementation as needed, and mostly recorded through emails.

242. The project communication activities were mainly through the project partners, e.g. GEC and IGES. The improvement was realised via the media, website, and events strategy and work plan managed by the newly hired consultant based in UNEP-IETC.

Rating for Quality of Project Management and Supervision: Satisfactory

Stakeholders Participation and Cooperation

243. A stakeholder analysis was included in the project document. As mentioned earlier, for

project implementation, UNEP-IETC was partnering with several organisations, including in-country organisations. All the organisations were already involved in the implementation of the previous one or more projects.

244. All interviewed stakeholders emphasised their fruitful collaboration with UNEP-IETC, and/or with other implementing organisations, such as UNEP ROs, TAF, IGES, GEC or consultants. These strategic collaborations and active participation and cooperation of stakeholders was an effective and efficient way for project implementation, are considered to have largely contributed to achieving the project results.

245. It was also mentioned in an interview that some local national implementing partners have very limited human resources, and thus were not fully capable of supporting large-scale project activities, such as surveys for databases or conducting interviews.

Rating for Stakeholders Participation and Cooperation: Satisfactory

Responsiveness to Human Rights and Gender Equality

246. Gender equality and the needs of vulnerable groups were considered in the project design. The project provided the opportunity to mainstream their rights in various ways, including health, fair employment, and the right to participate in public affairs feedback and decision-making.

247. The GWMO II and RWMOs have taken gender and human rights into consideration in various ways; GWMO II includes "Ensuring inclusion and representation" and" A human rights-based approach" among other considerations for women; the LAC WMO includes information on 'waste management and gender'; the SIDS and West Asia WMOs also include reference to gender. Moreover, the Gender and Waste Nexus report was prepared within the framework of the project with experiences from Bhutan, Mongolia, and Nepal. It successfully brings into focus the role of gender in waste management and entails information on, inter alia, role of women in the informal waste sector, as landfill pickers, in waste recycling businesses.

248. In addition to providing general guidelines and a policy brief for mainstreaming gender in the waste sector and strengthening women's participation for more efficient and effective waste management operations, the project significantly contributed to knowledge and materials focused on specific waste streams, particularly plastic waste, e-Waste, and medical waste (including that caused by COVID-19). The reports, Gender and Waste Factsheets, Gender Responsive Programs Guidance, and Recommendations to Improve Women's Participation in sectoral waste-related strategies, resource allocation, and institutional development to protect vulnerable groups provided practical examples from each sector. These documents advocated for pragmatic interventions in waste management—specifically, the designing, implementing, and monitoring of these interventions with a gender-conscious lens. The developed knowledge has been disseminated via the UNEP-IETC website and UNEP/UNEP-IETC/partners events, driving gender inclusion to transformative impact in both formal and informal waste management sectors.

249. The project ensured gender balance across all activities, including the composition of the IAB members, the UNEP-IETC project implementation team, implementation partners, government authorities, and participants of training and workshops. Women's participation was effectively addressed according to various data sources (documents, websites). However, gender-based aggregated data were only partially available in reports and documents.

250. Interviewees represented both genders; no gender-related issues were reported during the interviews.

251. The TR did not find evidence of gender bias in the project implementation or the TR

process. The TR's conclusion is deemed neutral.

Rating for Responsiveness to Human Rights and Gender Equality: Highly Satisfactory

Environmental and Social Safeguards

252. The project document includes the 'Environmental, Social and Economic Review Note', according to which low risk[45] has been assessed.

253. Project results, via providing information, waste management strategies, demonstration of pilot projects, and capacity building, aim to support countries to integrate adequate waste management, which in itself would have a positive impact on the environment, inter alia, reduced and/or no open burning, reduced plastic waste, reduced greenhouse gas emissions, reduced (aiming towards eliminated) air, water and soil pollution.

254. The WMOs, waste management guidelines/tools and knowledge/training materials have been made available online and e-version, virtually accessible to audience in large without putting extra environment cost for distribute them by printing copies. Due to the COVID-19 pandemic, project-related travel and face to face coordination and meetings could not take place since March 2020. Therefore, the carbon footprint, in this case inevitably, was less compared to a normal scenario.

Rating for Environmental and Social Safeguards: Highly Satisfactory

Country Ownership and Driven-ness

255. Governments have provided information for the preparation of the WMOs in their respective regions or in the global one, and have also been involved in reviewing the documents.

256. From the interviews and partner project reports, it is clear that governments were generally interested in and actively involved in developing waste management strategies and roadmaps. Some governments conducted surveys, created waste inventories and databases, and performed fact and potential analyses in collaboration with project partners to gather the information necessary for creating strategic documents. These documents have been approved and put into implementation. Continued government support, both financial and technical, remains essential and is a prerequisite for implementing waste management strategies, whether independently or in cooperation with external partners, such as UNEP agencies and other funding providers.

257. Driven by commitment to greener economic growth and the Nationally Determined Contributions (NDCs) on climate change, countries are adopting circular and resource-efficient approaches. The project supported these ambitious goals by providing opportunities and knowledge on Waste-to-Energy technologies and GHG mitigation through the reduction potential of Short-Lived Climate Pollutants, among other project outputs. These initiatives supported the implementation of national plans, for instance, the National Waste Management Strategy 2019 provided concrete action plan for achieving the vision of the National Waste Management Flagship Program to achieve Zero Waste Bhutan by 2030.

Rating for Country Ownership and Driven-ness: Highly satisfactory

Communication and Public Awareness

258. The project document foresees a Communication Officer for the project, to carry out

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[45] Low risk: Negative impacts negligible; no further study or impact management required.

promotional activities and maintain the website, as well as involvement of the UNEP Communication Division. A Chapter on 'Communication and Learning' is included in the project document, which outlines some ideas for promotion of the GWMO II as well as the RWMOs, and the different guidelines and reports. The pilot training courses on waste management have been mentioned under this section as a means of dissemination of tools at the national and city level.

259. A Communication Plan for the promotion of the GWMO II was prepared by the UNEP-IETC, and sent to the UNEP Communications Division with the request to implement the outreach plan. It entails information about the media foreseen for the promotional activities, as well as some thoughts on content to be presented.

260. Due to limited human resources at UNEP-IETC, the communication activities were primarily conducted with the support of the project partner in Japan, i.e., GEC. They helped organise events and dialogues, raise awareness, and public campaigns, as well as produce visibility materials such as brochures and fact sheets. This work was strengthened with a recruited communication outreach consultant to the UNEP-IETC project team starting January 2021.

261. Communication activities included organizing dialogues and campaigns, publishing videos on social media (e.g., YouTube, LinkedIn) and articles in magazines, and making documents, information, and presentations available on the UNEP-IETC and implementing partner websites. The communication and outreach tools are non-exhaustively summarised in the Annex VIII.

262. The significant milestone of the project, the launch of GWMO II, was highlighted at UNEA 6 in March 2024 and widely recognised by the international community.

263. Under the SEA circular project, numerous activities have been undertaken to raise public awareness. These include initiatives such as the regional campaign "100 Days to #BeatPlasticPollution" and the SEA of Solutions regional networking events. Additionally, a public service announcement video titled "Plastic, Not So Fantastic!" was created to engage and inform the public about the challenges of plastic pollution. These efforts aim to foster greater awareness and action towards addressing plastic waste issues in the region.

Rating for Communication and Public Awareness: Satisfactory

Rating for Factors Affecting Performance: Highly Satisfactory

VI. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

264. The project's thematic area, waste management, and its activities and results are highly relevant for all participating countries. It is in line with strategic objectives and priorities of UNEP POW 2018-2019 of MTS 2018-2021, UNEP POW 2022-2023 of MTS 2022-2025, and regional and national strategic priorities, as well as donor's strategic priorities.

265. According to the reconstructed ToC in Terminal Review, the project, at end of project, milestones in six components, three Outputs, and direct Outcome are achieved, the Outcome is partially achieved.

266. All the activities/milestones foreseen in the project results framework have been achieved. The Global Waste Management Outlook II, four Regional Waste Management Outlooks - Africa, Latin America and the Caribbean, Small Island Developing States, West Asia, and an Electrical & Electronic Waste Outlook in West Asia have been launched. Twenty-one national and/or city-level waste management strategies/action plans have been prepared. Three pilot projects were carried out – on composting and biodegrading organic waste technologies, along with other demonstration activities on identifying, applying and innovating contextually appropriate ESTs in country and local level, especially focused on e-Waste, plastic, and municipal waste management. Massive sound waste management guidelines, knowledge products, capacity building materials were prepared, accessible at UNEP-IETC and the project partner's websites. They were broadly disseminated via the project activities, project partners' networks, UN/UNEP initiatives and platforms, and public outreach channels. Training courses on sound waste management were conducted in Latin America and the Caribbean, Africa and Asia-Pacific regions.

267. Output A, dedicated to enhancing knowledge and awareness of environmentally sound waste management practices, has achieved significant milestones. The successful launch of the GWMO II and five RWMOs, coupled with the dissemination of related training courses and knowledge products, underscores the project's impact. Additionally, the SEA Circular Initiative has contributed to this effort by developing and disseminating various knowledge products, amplifying awareness and understanding of sustainable waste management practices across participating regions. Through these combined efforts, stakeholders have gained valuable insights into effective waste management strategies, fostering a culture of sustainability and environmental stewardship.

268. Output B - Availability of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches to waste management – is assessed to be fully achieved. Countries have access to WMOs and several other reports, case studies, and guidelines. Waste management strategies have been prepared. Solutions on locally managing emerging waste were proposed. The training courses on environmentally sound technologies and approaches were conducted. Pilot projects and demonstration activities on identifying, applying, and innovating contextually appropriate ESTs have been implemented.

269. Output C - Capacities for mitigating the climate, environmental, and social risks associated with the waste management sector, including those affecting vulnerable and gender groups - is assessed as achieved. According to project deliverable documentation and their user feedback, awareness of the linkage between cross-cutting issues and waste management has significantly improved. Additionally, concerns regarding gender and vulnerable groups have been integrated into the

project milestones and are mainstreamed in future waste management planning and initiatives.

270. Direct Outcome - Increased use of available products and knowledge in waste management by project stakeholders for policy making and implementation, and research in project countries, using UNEP guidance – is assessed as achieved. Stakeholders have already reported referring to project knowledge products for various purposes, such as preparing waste management strategies, conducting research, promoting circularity, and advancing towards carbon neutrality within the waste management framework by integrated waste management.

271. Project Outcome - Policies and practices and legal frameworks for waste prevention and sound management developed and implemented by stakeholders in project countries - is assessed as partially achieved. The country strategies and regulations implementations have been initiated or partly mobilised, largely depending on the government funding availability. Pilot projects and demonstration initiatives on environmentally sound technologies, including waste to resources and regulating informal waste sector, were implemented, and upscaled/replicated in some countries and regions.

272. Project impact - Significantly reduced negative impacts from waste on environmental and human health - is assessed as likely. The drivers and assumptions from Project Outcome to Intermediate State (Environmentally sound management of waste based on waste as resource approach prioritizing waste prevention, segregation for reuse and recycling, treatment and disposal, in project and new countries) are partially in place and partially hold. This is due to the fact that the legal frameworks and infrastructure, funding available by the governments /private sector/donors for upscaling of implementation and awareness-raising and capacity building activities, are not fully ensured in some countries.

273. UNEP-IETC's strategic partnerships have facilitated strong collaboration with several partners for project implementation. These partnerships, already functional within the framework of previous projects, have enabled implementing partners to be well-acquainted with UNEP-IETC's work, the thematic area, and the implementation requirements, significantly contributing to the expected achievements.

274. The COVID-19 pandemic has affected decision making and implementation of activities. Face-to-face meetings or workshops, including coordination meetings for the GWMO II could not take place due to the COVID-19 pandemic. The West Asia Waste Management Outlook was launched online due to the same reason. The shift to online format has affected project expenditure to some extent. It is an unintended positive effect, in that the carbon footprint of UNEP was reduced. At the same time, it has made coordinating activities and decision-making challenging, requiring more time. The preparation of GWMO II was adversely affected by the pandemic; similarly, the initiation of pilot projects was delayed and limited, and it took longer than initially anticipated to achieve their envisaged results.

275. Project commenced in May 2018. COVID-19 pandemic, which is completely outside the influence of the project, is one of the primary reasons for project extensions. The extension also resulted from the additional available funding for activities. After over 61 months of project implementation, project expenditure is at 85% of the planned secured funds. All of the foreseen activities, including the new components identified in two project extensions, have been completed. In line with UNEP's guidance documents for the TR, the TR assesses project implementation to be highly efficient.

276. Human resources at the UNEP-IETC were reduced considerably, from five professional staff at the time of project formulation to one professional staff, excluding the JPOs,

at the time of the MTR, which is far from the critical mass of staff required for the implementation of such a global project, with several implementing partners and stakeholders and different types of activities. This situation was improved in the post - MTR period by engaging external expertise and UNEP internal human resources. This didn't have any adverse effect on project implementation which was carried out by the collaborating partner organisations, which have been involved already in the UNEP/IETC predecessor projects. Project reporting was done in the time intervals as foreseen and required. Information and knowledge management, as well as quality of reporting, did not fully meet its intended function, leading to a lack of comprehensive tracking of progress and changes. The reduction in staff potentially contributed to these areas for enhancement.

277. Promotional activities have been carried out; nevertheless, communication is continuous efforts to ensure the project sustainability. The accessible knowledge products and training courses are considered to have high potential for expansion to more countries and regions via ongoing UNEP initiatives, platforms, partner projects, and UNEP-IETC following projects.

278. Gender and vulnerable groups have been adequately addressed throughout the project. For example, the GWMO II and RWMOs have incorporated a gender focus, and a Gender and Waste Nexus report was prepared with information related to gender and waste management from Bhutan, Mongolia, and Nepal. The developed waste management strategies and guidelines have mainstreamed the concerns of gender and vulnerable groups. The project significantly contributed to knowledge on the relationship between gender and waste in specific waste streams, particularly plastic, e-Waste, and medical waste (including that caused by COVID-19). It also emphasised mainstreaming gender and strengthening women's participation for more efficient and effective waste management operations. Gender-disaggregated data collection should be better addressed in project reporting.

B.   Summary of project findings and ratings

279. The table below provides a summary of the ratings and findings discussed in Section V. Overall, the project demonstrates a rating of 'Satisfactory'.

UNEP Evaluation Office Validation of Performance Ratings:

The UNEP Evaluation Office formally quality assesses (see Annex XI) management led Terminal Review reports and validates the performance ratings therein by ensuring that the performance judgments made are consistent with evidence presented in the Review report and in-line with the performance standards set out for independent evaluations.

The Evaluation Office assesses a Terminal Review report in the same way as it assesses the initial draft of a Terminal Evaluation report. It applies the following assumptions in its validation process:

– That what is being assessed is the contents of the report and the extent to which it makes a consistent and justifiable case for the performance ratings it records.

- That the consultant has, within the report, presented all the evidence that was made available to them.

- That the Review has been based on a robust Theory of Change, reconstructed where necessary, which reflects UNEP's definitions at all levels of results.

- That the project team and key stakeholders have already reviewed a draft version of the report and provided substantive comments and made factual corrections to the Review Consultant, who has responded to them. The Evaluation Office assumes, therefore, that it has received the Final (revised) version of the report.

In this instance the Evaluation Office validates the overall project performance rating at the **'Satisfactory'** level.

Table 14: Summary of Project Findings and Ratings[46]

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
Strategic Relevance		**HS**	The rating is validated.	**HS**
1. Alignment to UNEP MTS, POW and strategic priorities	Aligned with MTS 2018-2021, POW 2018-2019, and MTS 2022-2025, POW 2022-2023 strategic objectives and priorities	HS	The rating is validated.	HS
2. Alignment to Donor/Partner strategic priorities	Aligned with priorities of key donors, Japan, Germany (IKI), Sida, Norway, GIZ-Mitigation Action Facility, IGES, EU, etc.	HS	The rating is validated.	HS
3. Relevance to global, regional, sub-regional and national environmental priorities	Aligned with regional, sub-regional and national environmental priorities, e.g. e-Waste and Plastic, as well as waste generated from COVID-19 pandemic.	HS	The rating is validated.	HS
4. Complementarity with relevant existing interventions/coherence	Continuation of projects 531.1, 531.2, 534.1, 532.1 in line with international agreements – Stockholm, Rotterdam, Basel, Minamata Conventions, and responding to the regional and national needs. Synergised to other waste management and ESTs knowledge publication and dissemination. Complementary to UN/UNEP, and environment-driven initiatives and platforms, e.g. SACEP, COBSEA	HS	The rating is validated. However, the Evaluation Office notes that the assessment would have benefited from an examination of complementarity also to interventions/ coherence implemented by donors and partners.	HS
Quality of Project Design	Includes situation of waste in participating countries, good problem analysis, cause and effect, funding mobilization mapping, gender concerned. Completion of the checklist of ProDoc, though the definition of the results were not compatible to the UNEP evaluation guidelines.	**HS**	The rating is validated.	**HS**
Nature of External Context	COVID-19 related delays	**MU**	The rating is validated.	**MU**
Effectiveness		**S**	The rating is validated.	**S**
1. Availability of outputs	All planned and additional activities have been implemented, and all	HS	The rating is validated.	HS

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[46] Most criteria will be rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated, also on a six-point scale, from Highly Likely (HL) down to Highly Unlikely (HU) and Nature of External Context is rated from Highly Favourable (HF) to Highly Unfavourable (HU).

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
	outputs have been achieved. Components A, C, D, E, and F reached their goals, with some components even largely exceeding their milestones. Component B was only partially achieved due to a shortfall in the number of pilot projects due to COVID-19 affect. However, the targeted outputs for this component were compensated by achieving other demonstration initiatives, though they were not entitled as "project".			
2. Achievement of project outcomes	Direct Outcome – fully achieved –available products and knowledge already being used. Project Outcome – partially achieved – policies and practices have been implemented by most of project countries.	S	The rating is validated.	S
3. Likelihood of impact	Knowledge products, waste management strategies implementation, and capacity building contributed to reducing negative impacts from waste on environmental and human health. Strong commitment to the future implementation of waste management strategies maintained or expanded the further potential.	L	Rating adjusted to 'Moderately Likely'. The Review ascertains that the project outcome is only partially achieved and does not provide sufficient evidence that assumptions (government and local/municipal levels are committed to improve waste management) and drivers (active support, robust knowledge) to support transition from outputs to project outcome are partially or fully in place in the project countries. One example of eco tax in Mongolia is provided.	ML
Financial Management		**HS**	The rating is validated.	**HS**
1. Adherence to UNEP's financial policies and procedures	In line with UNEP's financial policies and procedures	HS	The rating is validated. However, the analysis of financial management would have benefited from an assessment of timeliness of approvals, submission of reports and revisions.	HS
2. Completeness of project financial information	Complete project financial information provided to the TR	HS	The rating is validated.	HS
3. Communication between finance and project management staff	Regular communication between finance and project management staff at UNEP-IETC	HS	The rating is validated.	HS
Efficiency	Albeit only 83% of secured funds spent, almost all foreseen	**HS**	The rating is validated.	**HS**

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
	activities achieved, with most of the milestones were overachieved. The two extensions were mainly for mitigating the delays caused by COVID-19, while three more components were added up for strengthening the efforts towards the project expected objectives.			
Monitoring and Reporting		**MS**	The rating is validated.	**MS**
1. Monitoring design and budgeting	Relevant information included, but not the corresponding budgets by activities/milestones in monitoring plan and workplan	S	The rating is revised to 'Moderately Satisfactory' as the monitoring plan did not include frequency of data collection beyond regular monitoring in PIMS and there was no specific budget for monitoring.	MU
2. Monitoring of project implementation	No evidence of monitoring besides reporting and clarifications, in case of queries by project partners and UNEP. lack of adequate human resources at the UNEP-IETC might be contributing to this.	MS	The rating is validated. The Evaluation Office notes only two oversight meetings of the IAB, which was expected to replace a PSC. This may have been due to the COVID pandemic.	MS
3. Project reporting	Reporting carried out, but quality of reports lacking, as well as several details; lack of adequate human resources at the UNEP-IETC might contribute to this. PIMS reporting was not considered sufficient due to lack of detailed information in the PIMS reports. There is an incompatibility in the reporting framework and indicators among the ToC, Logical Framework, PIMS reporting, Project Closure report, and reports from project partners, leading to a lack of comprehensive tracking of progress and changes.	MS	The rating is validated.	MS
Sustainability		**ML**	The rating is revised to 'Moderately Unlikely' in accordance with the revised weighted ratings of the sub-criteria.	**MU**
1. Socio-political sustainability	No issues reported	HL	The rating is revised to 'Likely'. The national and city waste management strategies, roadmaps, awareness-raising materials, and the curriculum are available to the public and the youth. However, there is limited evidence of commitment by government to implement or utilise the national and city waste management strategies, roadmaps awareness-raising materials, and the curriculum.	L

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
2. Financial sustainability	No issues with the WMOs. Sufficient financial provisions made in countries for implementation of waste management strategies was only reported in part of project countries.	ML	The rating is revised to 'Moderately Unlikely'. The assessment focuses mainly on the new intervention being developed to continue work, and does not provide sufficient evidence of financial commitment made at national and municipal levels in project countries. Examples from Bhutan and Mongolia showcase need for action by stakeholders to ensure financial sustainability.	MU
3. Institutional sustainability	No issues with the WMOs. The institutional sustainability of waste management strategies and the continued implementation of capacity-building activities heavily depend on the involvement of national and city governments.	L	The rating is revised to 'Moderately Likely'. Evidence of uptake of WMOs is needed to ensure there is continued support for waste management strategies and action plans to be implemented.	ML
Factors Affecting Performance		**HS**	The rating is validated.	**HS**
1. Preparation and readiness	The project is a continuation of three previous UNEP-IETC projects with the same implementing partners. The potential target participating countries and regions were pre-identified, and their priorities and needs were consulted. The multidisciplinary expert team, government, and private sector provided the inputs, and the project proposal was reviewed in 10th IAB.	HS	The rating is validated.	HS
2. Quality of project management and supervision	Overall monitoring, reporting, maintaining implementation-related information and knowledge need improvement.	S	The rating is validated.	S
2.1 UNEP/Implementing Agency:	Lack of adequate human resources at the UNEP-IETC might be contributing to this – inadequate monitoring, reporting, maintaining implementation-related information and knowledge.	MS	The rating is validated.	MS
2.2 Partners/Executing Agency:	Adequate implementation management and reporting. This adequacy was also partly driven by donors (e.g. IKI).	S	The rating is validated.	S
3. Stakeholders' participation and cooperation	Most of the implementation partners are in the previous three projects – 531.1, 531.2, 534.1 were involved in the project. The efficient cooperation was built up with experience of implementation of UNEP-IETC project activities, country-presence.	HS	The rating is validated.	HS

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
4. Responsiveness to human rights and gender equality	Human rights (such as fair opportunity for job, health) in informal sector, for vulnerable groups were addressed. Project document includes gender assessment; project output documents have focused mainstreaming gender and strengthening the women participation in the waste management sector	HS	The rating is revised to 'Satisfactory'. While gender and human rights appear to have been considered in project design and implementation, the review finds that gender disaggregated data were only partially available in reports and documents. As the HS rating represents exemplary practice, the Evaluation Office would rate this just below that level, at Satisfactory.	S
5. Environmental and social safeguards	Project document includes an Environmental, Social, and Economic Review Note, outlining plans to contribute to environmental safeguarding and social inclusion and fairness. Addressed the prevention of pollution from open-burn waste, plastic and e-Waste. Supported informal sectors labour safety and health and especially focused on women.	HS	The rating is validated.	HS
6. Country ownership and driven-ness	Countries have contributed to the preparation of the WMOs and participated in both country-specific and regional capacity-building activities. Ownership of waste management strategies, action plans, and policies is a prerequisite for their effective implementation. Additionally, these countries are now equipped with the necessary tools and capacities to contribute to international commitments on environment and climate change.	HS	The rating is validated.	HS
7. Communication and public awareness	Project document foresees a Communication Officer. An Outreach Communication Consultant was recruited in January 2021. Developed the Strategic Outreach plan on the UNEP Sustainability Action, UNEP-IETC Visibility Activities including event, press release, media organisation and website information management. Communication activities were carried out and visible for public information and awareness. The UNEP-IETC and partners (inter alia IGES, TAF, SIEA) have published the project deliverables (including the factsheet, videos, and links) as appropriate categories as in the websites. Positive feedback is reported from the public education and	S	The rating is validated.	S

Criterion	Summary assessment	Rating	Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
	knowledge dissemination events.			
Overall Project Performance Rating		S	**Overall Rating Validated**	**S (Satisfactory)**

C.   Lessons learned

Lesson Learned #1:	A critical mass of staff is necessary to carry out adequate project monitoring, reporting, information and knowledge management, as well as communication activities (besides project implementation).
Context/comment:	The professional staff at UNEP-IETC has been reduced from five at the time of project formulation to one at the time of the MTR and three at the time of the TR. This reduction is believed to have adversely affected the quality of project monitoring, reporting, maintaining implementation-related information, and the potential expansion of activities.

Lesson Learned #2:	Strategic partnerships are conducive to well-functioning project implementation.
Context/comment:	Despite the challenges posed by Covid-19 and reduced human resources at UNEP-IETC, the project has exceeded expectations in some planned activities. All planned and additional activities identified during the project extension were completed within the original timeline. A key factor in this success has been the strategic partnerships established during the previous three projects.

Lesson Learned #3:	Mainstreaming gender and human rights for vulnerable groups within advisory and technical support significantly provides best practices on addressing these issues in policy recommendations, creation, and implementation.
Context/comment:	Having focused on the gender equity and human right of vulnerable groups, the project has provided good references in the WMOs and Gender and Waste Nexus report, developed policy instruments, as well as the training materials, ensuring waste management informal sector is valued and policies and proposed ESTs are gender sensitive.

D.   Recommendations

Recommendation #1:	UNEP-IETC should be strategically strengthened as the 'Centre of Excellence for Waste Management' with human resources to support Project Design, Funding Partnerships, Project Implementation, Monitoring and Reporting, and Knowledge Management.
Challenge/problem to be addressed by the recommendation:	It is needed to assess the UNEP-IETC's long-term vision for supporting the global waste management advisory and support mandate, to identify urgent and potential human resources and management support needs, crucial for fulfilling the organisation's mandates and effectively leading the project. A long term communication professional and monitoring professional positions could help oversee the centre's knowledge management and project monitoring.
Priority Level:	Critical

Type of Recommendation	UNEP Governance -Chemical and Waste Branch
Responsibility:	UNEP
Proposed implementation time-frame:	Within next 6-12 months after the project TR

Cross-reference(s) to rationale and supporting discussions:

- Section V. G. Monitoring and Reporting

Recommendation #2:	**Implementation engagement plan and post-project implementation plan shall be considered in the future project design, along with the identification of partner countries and cities.**
Challenge/problem to be addressed by the recommendation:	The developed waste management strategies, action plans, and capacity-building activities were not fully put into implementation, as the continuation of the project legacy requires advanced commitment and planning. This is necessary to ensure ownership and drivenness of the follow-ups and to achieve a lasting positive impact.
Priority Level:	Important
Type of Recommendation	UNEP-IETC
Responsibility:	UNEP-IETC
Proposed implementation time-frame:	At each project design and when deliver the project output

Cross-reference(s) to rationale and supporting discussions:

- Section V.G Monitoring and Reporting
- Section V.B Quality of Design

Recommendation #3:	**Project design criteria and monitoring schemes should be aligned with and compatible with UNEP reporting requirements, also update with an agile approach.**
Challenge/problem to be addressed by the recommendation:	Institutional and project data governance should be coherent with UNEP requirements. UNEP-IETC should establish a data management system. This system will include a manual for handling data at both the organisational and project levels. Additionally, the data should be capable of integration into the UNEP reporting system and be readily available for communication with partners, donors, etc., as needed.
Priority Level:	Important
Type of Recommendation	UNEP-IETC
Responsibility:	UNEP-IETC
Proposed implementation time-frame:	Long Term

Cross-reference(s) to rationale and supporting discussions:

- Section V.G: Monitoring and Reporting

Recommendation #4:	**An advanced funding strategy should be developed in collaboration with partners and implementing cooperation organisations.**
Challenge/problem to be addressed by the recommendation:	Some project deliverables, such as the waste management strategy and action plan, and training materials, have not been implemented due to a lack of funding. In addition to a commitment to co-self-finance, a funding mobilization plan should be prepared and supported by fund providers, including the private sector. This will significantly enhance the sustainability of the project and synergise with other ongoing and upcoming projects and programs.
Priority Level:	Important
Type of Recommendation	Partners
Responsibility:	UNEP-IETC
Proposed implementation time-frame:	Long Term

Cross-reference(s) to rationale and supporting discussions:

- Section V. H. Sustainability - Financial Sustainability

Recommendation #5:	**The project monitoring plan shall be more applicable, including the aggregated data related to donor, gender, region, and nature of the activities, and concrete approach of establishment of the data.**
Challenge/problem to be addressed by the recommendation:	The lack of detail in the monitoring plan hinders the measurement of project progress and prevents efficient adjustments for optimal fund utilization and output effectiveness, as well as the communication with donors.
Priority Level:	Important
Type of Recommendation	UNEP-IETC
Responsibility:	UNEP-IETC
Proposed implementation time-frame:	Each project design and when deliver the project output

Cross-reference(s) to rationale and supporting discussions:

- Section V.G: Monitoring and Reporting
- Section V. E: Financial management

Recommendation #6:	**A project steer committee or a management body shall be established for regularly governing the project implementation to facilitate communication with donors and partners, provide the decision for project.**
Challenge/problem to be addressed by the	To establish a decision body for regularly reporting to the UNEP as well as main implementation partners about the updates and the changes,

recommendation:	against the project design.
Priority Level:	Important
Type of Recommendation	Partners
Responsibility:	UNEP-IETC
Proposed implementation time-frame:	Long Term

Cross-reference(s) to rationale and supporting discussions:

- Section V.I. Quality of Project Management and Supervision

ANNEX I. RESPONSE TO STAKEHOLDER COMMENTS

Table 15: Response to stakeholder comments received but not (fully) accepted by the reviewers, where appropriate

Page Ref	Stakeholder comment	Reviewer Response
10	This Project impact assessment would require a large-scale study to assess:	As per the TR Guidelines, impacts are long-lasting results arising directly or indirectly from a project. The TR assesses whether the project leads to intended changes and the likelihood of these desired effects in the long run. According to the UNEP TR guidelines and rating method in the "15_TR Likelihood of Impact Flow Chart," the project impact is assessed as likely at the time of the TR. A large-scale study on this project's impact and sustainability could be integrated into the evaluation of the "UNEP Sub-Programme on Chemicals and Pollution Action 2015-2023." This would reflect the collective efforts driving global transformational change to low-carbon and resource-efficient economies, where UNEP plays the leading role in catalysing and coordinating reduction of the negative impacts on the environment and human health through sound waste management, along with partner contributions.

<table>
<tr><td colspan="5">ANNEX II. REVIEW FRAMEWORK/MATRIX</td></tr>
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No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
A. Strategic Relevance				
i	Alignment to the UNEP's Medium-Term Strategy (MTS), Programme of Work (POW) and Strategic Priorities	- Is the project in line with UNEP's mandate and how? - Is the project aligned with UNEP's MTS and POW? - Is the project in line with the Bali Strategic Plan for Technology Support and Capacity Building and South-South Cooperation?	- 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 UNEP IETC project coordinators - Interviews with IGES, ISWA staff and other project partners staff - UNEP publications (including BSP, S-SC)
ii	Alignment to Donor/Partner Strategic Priorities (Government of Japan, Norway, Germany, etc).	- Is the project in line with Donor/Partner Strategic priorities, and how?	- Degree of alignment with other UN/donor strategic policies	- ProDoc - PIMS reports/progress reports - Interviews with UNEP IETC project coordinators - Interviews with IGES, ISWA staff and other project partners staff - Interviews with donors (e.g. the Government of Japan's relevant Government Agency/-ies)
iii	Relevance to Regional, Sub-Regional and National Environmental Priorities	- Does the project respond to the stated environmental concerns and needs of the countries/sub- regions/regions?	- Degree of alignment with: * SDGs and Agenda 2030 * UNDAF, NAMA * National and (sub) regional plans,	- ProDoc - PIMS reports/progress reports - Regional strategies and agreements - Interviews with UNEP IETC project

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
			strategies, policies and agreements	coordinators
				- Interviews with IGES, ISWA staff and other project partners staff
				- Interviews with government representatives, as necessary and feasible
iv	Complementarity with existing interventions	- To what extent did the project, at design and/or mobilization phase, take account of ongoing and/or planned initiatives (under the same sub-programme, other UNEP sub- programmes, or being implemented by other agencies)? - To what extent did the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, make efforts to ensure that the project is complementary to other UNEP and UN interventions (UNDAF or OneUN programming), and optimise 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 UNEP IETC project coordinators - Interviews with IGES, ISWA staff and other project partners' staff - Interview with UNEP's Sub-programme coordinator on Chemicals and Waste - Interview with UNEP ROs - Interviews with 1-2 selected government representatives, as feasible - Interviews with project managers of other UNEP Divisions, if possible
B.	**Quality of Project Design**			
i	Relevance and logic of project Objectives, Activities, Outputs and Outcomes	- Templated questions (Project Quality Design) are provided by the UNEP Evaluation Office.	- Result of Overall Project Design Quality rating	- ProDoc, -Project Review Committee review sheet and responses to the review - Interviews with UNEP IETC managers

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
	C. Nature of External Context			
i	Aspects related to external operating context (considering the prevalence of conflict, natural disasters and political upheaval).	- Has the project 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 UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with government representatives, as necessary and feasible - Internet research
	D. Effectiveness			
i	Availability of Outputs Assessment in terms of quantity and quality, usefulness and timeliness of delivery	- 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 were the reasons Outputs were	- 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 - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		not achieved)?		- Interviews with government representatives, as necessary and feasible
ii	Achievement of direct Outcomes Assessment of performance against the direct outcomes as defined in the reconstructed ToC, and verify the contribution of UNEP IETC's intervention and the outcomes	- What Direct Outcomes (as per the reconstructed ToC) have been achieved? - Are these Direct Outcomes a result of project intervention?	- Number and quality of city and national waste management strategies - Number of downloads of GWMO II and RWMOs - Number and quality of training courses developed and offered within the project	- ProDoc - Project progress / PIMS reports - Financial reports - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners - Interviews with government representatives, as necessary and feasible
iii	Likelihood of Impact Assessment of likelihood of achieving the planned (long term) impact and project objectives and their linkages to the project interventions and the contribution of the projects to high-level changes represented by inter alia, the UNEP's Expected Accomplishments, SDGs.	- What is the likelihood of expected positive impacts to be realised? - 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? - To what extent have there been any scaling up and/or replication of project results? - To what extent has the project played a catalytic role and/or promoted the scaling up or replication of project results? - Is the project likely to contribute to the long-lasting and broad-based changes represented by the SDGs, and/or the intermediate- level results reflected in	- Number of new sound waste management initiatives at national and/or city-level	- Reconstructed ToC at Inception and at Review - ProDoc - Project progress reports - PIMS reports - Financial reports - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff and UNEP sub-programme coordinator for Chemicals and Waste

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		UNEP's Expected Accomplishments and the strategic priorities of funding partner(s)?		- Interviews with staff of other project partners - Interviews with government representatives, as necessary and feasible
E. Financial Management				
i	Adherence to UNEP's financial policies and procedures	- Is the project being implemented in compliance with UN financial management standards and procedures?	- Alignment of financial reporting with UNEP's format - Alignment of expenditures during project implementation with approved budget	- Project budget - Financial reports, audit reports - Interviews with UNEP IETC project managers - Interviews with UNEP Fund Management Officer - Interviews with project partners that received financial support (ISWA, IGES etc.)
ii	Completeness of financial information	- What is the actual expenditure of the project at current stage of implementation? - To what extent is the project's expenditure in line with the corresponding approved budget? - What changes, if any, have been made to the project's budget and why?	- Alignment of financial reporting with UNEP's format - Alignment of expenditures during project implementation with approved budget	- Project budget - Financial reports, if any - Interviews with UNEP IETC project managers - Interviews with UNEP Fund Management Officer - Interviews with project partners that received financial support (ISWA, IGES etc.)
iii	Communication between financial and project management	- To what extent did the quality of communication between project management and financial management staff affect project efficiency?	- Alignment of financial reporting with UNEP's format - Alignment of expenditures during	- Project budget - Financial reports, if any

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
	staff		project implementation with approved budget	- Interviews with UNEP IETC project managers - Interviews with UNEP Fund Management Officer - Interviews with project partners that received financial support (ISWA, IGES etc.)
F.	**Efficiency**			
i	Cost-effectiveness and timeliness of project execution	- Are any cost or time-saving measures (being) put in place to maximise results within the secured budget and agreed project timeframe? - Is the project making use of / building 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/are affecting project execution, costs, effectiveness and impact? How? - To what extent (if any) project extension could have been avoided through stronger project management? How? - What is 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 - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners - Interviews with government representatives, as necessary and feasible
G.	**Monitoring and Reporting**			
i	Monitoring design and budgeting	- To what extent is the monitoring plan designed to track progress against SMART indicators?	- Quality of monitoring plan - Number and quality of monitoring	- ProDoc

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		- Are responsible persons/organisations specified for? - To what extent are the allocated funds adequate for monitoring purposes, and for the mid-term and terminal evaluations?	documents	- Mid-term review report - Project budget - PIMS reports - Financial reports - Monitoring reports - Interviews with UNEP IETC project managers
ii	Monitoring of project implementation	- To what extent is the monitoring plan operational? - Are staffing arrangements at UNEP- IETC sufficient to carry out adequate monitoring of project implementation? - To what extent does the monitoring system facilitate the timely tracking of results and progress towards project Objectives? - To what extent was/is the information, generated by the monitoring system, used to adapt and improve project execution, achievement of Outcomes and ensure sustainability? - To what extent are the allocated funds for monitoring actually used to support monitoring?	- Number and quality of monitoring documents - Existence of mid-term review report - Number of staff at UNEP IETC involved in project monitoring	- ProDoc - Mid-term review report - Project budget - PIMS reports - Financial reports - Monitoring reports - Interviews with UNEP IETC project managers - Interview with UNEP Sub-Programme Coordinator for Chemical and Waste - Interview with Head of UNEP Economy Division
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 - PIMS reports - Mid-term review report - Project budget

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		-To what extent the project reports have been carried out with respect to the intervention effects on disaggregated groups?	- Number and quality of reports delivered to the donors	- Financial reports - Monitoring reports - Interviews with UNEP IETC project managers
H. Sustainability				
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 and/or city level, by the government (including allocation of budgets) and by the main stakeholders? - What is the likelihood that (individual) capacity development efforts continue? - Has increased capacity in the country been sustained?	- Number of follow-up waste management initiatives and planning by governments (including associated budgets) and by other stakeholders - Examples of potential effects built on capacities from the project interventions	- ProDoc - Project progress reports - PIMS reports - Interviews with UNEP IETC project managers - Interviews with government representatives, as necessary and feasible - Interviews with IGES, ISWA staff - Interviews with ROs 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	- Number of follow-up initiatives (planned or being planned) - Amount of funding available	- ProDoc - Project progress reports - PIMS reports - Interviews with UNEP IETC project managers - Interviews with government representatives, as necessary - Interviews with IGES, ISWA staff -

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		established to fund future sound waste management at the national and/or city levels?		Interviews with ROs staff - Interviews with staff of other project partners - Interviews with other stakeholders
iii	Institutional sustainability	- To what extent are 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 - Interviews with UNEP IETC project managers - Interviews with government representatives, as necessary - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners - Interviews with other stakeholders
	I. Factors and Processes Affecting Project Performance			
i	Preparation and Readiness (part of Project Design Quality Review)	- Are appropriate measures taken to either address weaknesses in the project design to respond to changes that take place or respond to changes that took place between project approval, the securing of funds and project mobilization? - What was the nature and quality of engagement with stakeholder groups by the project team during project preparation? - What process was followed to assess the capacities of implementing partners and develop the	- Number and quality of appropriate measures taken (if necessary) - Staffing at UNEP IETC - Quality of partner agreements	- ProDoc - Project budget - Interviews with UNEP IETC project managers - Interview with UNEP Sub-Programme coordinators of Chemical and Waste - Interview with Head of UNEP Economy Division

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		partnership agreements?		- Interviews with IGES, ISWA staff - Interviews with ROs staff
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? - Are staffing and financing arrangements at UNEP IETC sufficient to drive implementation? - How were the project relevance maintained within changing external and strategic contexts? - What was the nature of communication and collaboration with stakeholders? - What was the nature of communication and collaboration with UNEP staff and the UNEP 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) - Staffing at UNEP IETC - (Amount of) evidence of adaptive management being applied - Evidence of adaptive management (if any)	- ProDoc - Project progress reports - PIMS reports - Interviews with UNEP IETC project managers - Interview with UNEP Sub-Programme Coordinator for Chemical and Waste - Interview with Head of UNEP Economy Division - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners - Interviews with government representatives, as necessary and feasible
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 ownership? Are these effective? - What was the level of support provided to maximise collaboration and coherence between stakeholders, including sharing plans, pooling resources and	- Number of stakeholders identified and actively involved in project implementation - Number of stakeholders satisfied with the stakeholder participation - Number of staff at UNEP IETC responsible for stakeholder management/relationship management with partner	- ProDoc - Project progress reports - PIMS reports - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		exchanging learning and expertise? - What measures were taken to ensure inclusion and participation of all differentiated groups, including gender groups? - Was a coordination mechanism in place for adequate stakeholder management /relationship management with partner organisations to ensure good cooperation for project implementation?	organisations	partners - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders, as necessary and feasible
iv	Responsiveness to Human Rights and Gender Equity	- To what extent does 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 realised - 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 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 - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners
v		- 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	- Frequency of review of risk ratings - Number of monitoring reports that include monitoring of safeguard	- ProDoc - Project progress reports - PIMS reports

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
		and management) of potential environmental and social risks and impacts associated with project and programme activities? - To what extent are the following activities being 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?	issues - Evidence of adequate responses to safeguard issues	- Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders, as necessary and feasible
vi	Country Ownership and Driven-ness	- To what extent was/is 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 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?	- Number of project Outputs and Outcomes entrenched in government /public sector institutions - Degree to which project results have been adopted and championed nationally and/or at city level - Degree to which countries have willingly resourced the project and its Outcomes and indicated on-going budgetary funding and capacity for sound waste management	- ProDoc - Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
vii	Communication and Public Awareness *Link to sustainability*	- How are learning and experience sharing communicated between project partners and interested groups? - Which public awareness activities were undertaken during so far? - 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 marginalised groups? And whether any feedback channels were established?	- Operative communication platforms - Number of published articles, brochures, other communication material, etc. - Degree of awareness of stakeholders on sound management of waste	- ProDoc - Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners
viii	Mitigation Measures on COVID-19	- What changes were made to adapt to the effects of COVID-19, and how might any changes affect the project's performance?	- Evidence of adaptation measures - Degree of the mitigation effectiveness	- ProDoc - Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
				- Interviews with ROs staff
J.	**Strategic Questions**			
i	Advancement of Environmentally Sound Technologies and Methods	- To what extent did the project's interventions effectively enhance waste management practices in the participating countries and regions, contributing to the advancement of environmentally sound technologies and methods?	- Number of waste management practices enhanced by project - Evidence of advancement of environmentally sound technologies and methods	- ProDoc - Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners
ii	Local Stakeholder Engagement *Link to Stakeholder Participation and Cooperation*	- How well did the project engage with national and local governments, stakeholders, and partners to ensure that the proposed waste management solutions were contextually appropriate and aligned with the needs and priorities of the respective region/country/city?	- Degree of collaboration/ engagement of national and local government - Examples of successful local collaboration -Evidence of waste management result steamed from local collaboration	- Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers

No	Review Criteria	Sub Questions	Indicators / Means of verification	Data Sources
				- Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners
iii	Knowledge Support and Technical Advisory Services on Waste-to-Resources	- How did the project contribute to the establishment of formal waste management sectors and the adoption of the waste-to-resources approach, considering the project's focus on knowledge support, technical advisory services, and awareness raising?	- Evidence of knowledge support, technical advisory services provided, and awareness raising - Evidence of "waste-to-resources" in formal waste management sectors - Evidence of promotion and advance of circularity towards carbon neutrality in terms of waste management	- ProDoc - Project progress reports - PIMS reports - Interviews with government representatives, as necessary and feasible - Interviews with other stakeholders (including private sector), as necessary and feasible - Interviews with UNEP IETC project managers - Interviews with IGES, ISWA staff - Interviews with ROs staff - Interviews with staff of other project partners

ANNEX III. PEOPLE CONSULTED DURING THE REVIEW

Table 16: People Consulted during the Review

Organisation	Name	Position	Role in the project	Gender
Central Environmental Authority of Sri Lanka	Sarojinie Jayasekara	Director of Solid Waste Management	Beneficiary	F
Consultant	B. Delgerbayar	IKI project in Mongolia	Consultant for Implementing partner	M
Consultant	N. Enkhbayasgalan	IKI project in Mongolia	Consultant for Implementing partner	F
Consultant	Gan-Od	EST local Manufacturer	Consultant for Implementing partner	M
GEC	Akiko Doi	SSFA and PCA between UNEP and GEC for outreach activities	Implementing partner	F
GRID-Arendal, a centre collaborating with UNEP	Ieva Rucevska	One of authors for Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal	Implementing partner	F
IGES-CCET	Premakumara Jagath DICKELLA GAMARALALAGE	PCA between UNEP and IGES for waste management strategies	Implementing partner	M
International Solid Waste Association	Aditi Ramola	GWMO II	Implementing partner	F
International sustainability Consultant	Deepali Sinha Khetriwal	E-Waste, plastic waste and gender	Consultant	F
LEAD Nepal	Karuna Adhikaree	IKI project in Nepal	Implementing partner	F
Hustai National Park Mongolia	Batzaya zaya	Manager, host of ESTs	Beneficiary	M
Mayor's Office of Ulaanbaatar	S.Ariguun	Former Head of Waste Management Department	Beneficiary	M
Ministry of Environment and Tourism of Mongolia	A. Oyun	Specialist at Environment and Natural Resources Management Department	Beneficiary	F
Ministry of Environment and Tourism of Mongolia	Ts. Batbaatar	Ecotax law specialist	Beneficiary	M
Ministry of Environment and Tourism of Mongolia	Tserendorj Uranchimeg	Head of Department	Beneficiary	F
Ministry of Environment of Sri Lanka	S.M.Werahera	Director of Environmental pollution Control and Chemical Management Division	Beneficiary	M

Organisation	Name	Position	Role in the project	Gender
Ministry of Environment of Sri Lanka	Jeeva Palugaswewa	Assistant Director of Environmental pollution Control and Chemical Management Division	Beneficiary	F
Mongolian University of Science and Technology	Tengis Tserendondog	Professor, EST design improver	Consultant for Implementing partner	M
School no.34 Ulaanbaatar	Ulziidelger	Teacher, EST host of pilot project	Beneficiary	F
The Asia Foundation	Enkhbold Erdenebat	IKI project in Mongolia	Implementing partner	M
UNEP	Daniel Ternald	Former UNEP staff and individual contractor for 521.1 project management and GWMO II	Execution Agency	M
UNEP	Kamala Ernest	Project Coordinator for Sea circular	Execution Agency	F
UNEP	Takehiro Nakamura	Overall supervision as Head of IETC	Execution Agency	M
UNEP	Lucy Halogo	Fund Management Officer	Execution Agency	F
UNEP-IETC	Keith Alverson	Overall supervision as IETC Director (Former staff)	Execution Agency	M
UNEP-IETC	Shunichi Honda	Programme Management Officer of 521.1 at UNEP-IETC	Execution Agency	M
UNEP-IETC	Michiko Ota	Budget Assistant	Execution Agency	F
UNEP-IETC	Junko Fujioka	Programme Assistant	Execution Agency	F
UNEP ROWLAC	Jordi Pon	Project management at ROWLAC	Implementing partner	M
UNITAR	Ruediger Kuehr	E-Waste projects	Implementing partner	M
WWF Bhutan	Kezang Yangden	IKI project in Bhutan	Implementing partner	F

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ANNEX IV. KEY DOCUMENTS CONSULTED

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Project planning and reporting documents
- Project document: 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support
- Terms of Reference for the Mid-term Review of the UNEP project 02010 – 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support
- UNEP Terminal Review Guidance Documents
- UNEP Medium Term Strategy 2018-2021
- UNEP For people and planet: the UNEP strategy for 2022–2025
- UNEP Programme of Work 2018-2019
- UNEP Programme of Work 2020-2021
- UNEP Programme of Work and Budget for 2022-2023
- UNEA Decision - UNEP/EA.2/Res.7, May 2016
- UNEA Decision 16/34 (May 1991)
- UNEA Decision- UNEP/EA.4/RES.7, 2019
- UNEA Decision - UNEP/EA.6/Res.9 - Sound management of chemicals and waste (March 2024)
- PRC Report for project 521.1
- IAB Chair's Summary, 20 May 2019
- IAB Meeting Report. February 2022
- PIMS report (SMA ID 37506) – Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support
- Operational Project Closure Report of 521.1, December 2023
- Allotment Reports
- IETC Annual Report 2019
- IETC Annual Report 2021
- IKI Interim Report 30 April 2020
- IKI Results Monitoring Report. June 2023
- IKI project report-LEAD Nepal. September 2019
- Donor Agreement with IKI, Germany
- Project Cooperation Agreement with WWF, LEAD Nepal
- Small-Scale Funding Agreement with ISWA, CEA Sri Lanka, GEC Foundation, GRID-Arendal, CSIR-South Africa, Asia Foundation Mongolia
- Policy and Programme Division (PPD) Report on Quality of Project Design and RBM 2022
- Project report from implementation partners: GEC
- UNEP-IETC Communications Monthly Progress Report. January 2024

Project outputs – Overall
- Global Waste Management Outlook II. 2024
- Africa Waste Management Outlook. 2018
- Waste Management Outlook for Latin America and the Caribbean. 2018

- Small Island Developing States Waste Management Outlook. 2019
- Waste Management Outlook for West Asia. 2019
- Global Waste Management Outlook II Draft. 2021
- Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal. 2019
- Future E-Waste Scenarios. 2019
- Electrical &Electronic Waste Outlook in West Asia 2050. 2023
- CCET guideline series on intermediate municipal solid waste treatment technologies – Composting. August 2020
- CCET guideline series on intermediate municipal solid waste treatment technologies – Mechanical-Biological Treatment. October 2020
- CCET guideline series on intermediate municipal solid waste treatment technologies – Waste-to-Energy Incineration. June 2020
- CCET guideline series on Reduction of Organic Waste through Source Separation – A Guide for Rasing Awareness. June 2022
- Mid-term Review of UNEP-IETC Project 521.1
- Ecology Note – Towards a Clean, Green and Beautiful Bhutan. 2020
- Ecology Note – Towards a Clean, Green and Beautiful Capital City – Phnom Penh City. 2019
- National Waste Management Strategy – Bhutan. 2019
- Participatory waste management approach for climate change mitigation; the case of Battambang city. 2018
- Phnom Penh waste management strategy and action plan 2018-2035. 2018
- A Regional Waste Management and Action Plan for Zone 6 in Maldives. 2019
- A Roadmap for Sustainable Waste Management and Resource Circulation in South Asia, 2019-2030. 2019
- Waste Management during the COVID-19 Pandemic – From Response to Recovery. 2020
- State of Municipal Solid Waste Management in Negombo City, Sri Lanka. 2019
- Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries. 2019
- Waste to Energy – Considerations for informed decision-making. 2019
- South African Municipal Waste Management Systems – Challenges and Solutions. May 2020
- National Plastic Waste Reduction Strategic Actions for Indonesia. 2020
- Enhancing Circular Economy Perspectives – Plastic Waste Management Strategy and Action Plan for Greater Hyderabad Municipal Corporation. 2020
- Disaster Waste Management Policy/Strategy Nepal. 2019.
- Study on Integrated Solid Waste Management in Padang City. 2022
- Action Plan on Integrated Solid Waste Management in Padang City, Indonesia (2023-2030). 2022
- Waste Management Strategy and Action Plan for Negombo City, Sri Lanka, (2020-2030). 2020
- Ecological Education for School in Hoi An – A Teacher's Guide.2021
- Sri Lanka National Action Plan on Plastic Waste Management (2021-2023).2021

- Greening Healthy Infrastructure – Rapid Assessment of Policies and Practices on Health Care Waste Management in Ethiopia and Kenya. December 2021
- Health Care Waste Management towards the Circular Economy – A case study at Tribhuvan University Teaching Hospital in Nepal. November 2021
- Bottle -to-Bottle Recycling can Boost Sri Lanka in the Transition to Circularity in Plastics. 2021
- User Manual – Estimation Tool for Greenhouse Gas (GHG) Emissions for Municipal Solid Waste (MSW) Management in Life Cycle Perspective (Version III- Chinese context). December 2021
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- Activity Report 2020-2021 University Consortium on Sustainable Waste Management for Latin America and the Caribbean Report prepared by the Regional Office for Latin America and the Caribbean region – UNEP December 2021
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- Nation's waste on the scale -National Waste Inventory Survey (NWIS-2019) Bhutan.2019
- IKI Brochure: Waste and Climate Change Project
- National Waste Management Flagship Program (Zero Waste Bhutan by 2030). 2020
- Assessment of Green Financing Opportunities for Waste Management In Bhutan. September 2020
- Delivering solution for biodegradable waste through Environmentally Sound Technology and innovative partnership
- Sustainable waste management: A financial analysis in Bhutan. 2020
- Proposal of Developing circular waste management strategies to mitigate emissions and environmental impacts of livestock waste in Darkhan Uul, Mongolia Project Report Livestock Waste Climate Initiative for Mongolia. 2022
- Research Paper Waste and Climate Change. August 2022
- Research Paper Project Concept for Sustainable Waste Management Towards Zero Waste
- Waste And Climate Change Project Report on the pilot project to test Environmentally Sound Technologies for small to medium-scale food waste composting. December 2022
- Blueprints of spinner composter and Blueprint of automatic composter 3 from IKI Mongolia Project. 2019
- Ulaanbaatar Household Waste Composition Study- Report. 2019
- Gender and Waste Nexus: Experiences from Bhutan, Mongolia and Nepal - Policy Brief. 2019
- IKI Technical Interim Report. February 2022
- International Climate Initiative (IKI) Biannual Project. March 2022
- Sustainable waste management: A financial analysis, Bhutan. July 2020
- Impact of the Covid19 Pandemic on E-Waste the First Three Quarters of 2020 – UNITAR
- Guidebook for Conducting Waste Composition Study at Source- (Developed Based on Ulaanbaatar Household Waste Composition Study)
- Supply, Installation, Testing and Commissioning of 1 TPD Biogas Plant (WWF Bhutan)

Knowledge dissemination:

- National Seminar on Guidelines for Safe Closure and Rehabilitation of Municipal Solid Waste Dumpsites in Sri Lanka, Waters Edge (Nelum Hall), Battaramulla, Sri Lanka. 24th March 2021
- Training Module: Guidelines for Safe, Closure and Rehabilitation of Municipal Solid Waste Dumpsites in Sri Lanka. 2021
- Karbala Compost Project Awareness Campaign, Iraq. (27/12/2021 – 15/1/2022).
- Car Batteries – Lifecycle Mapping 2019
- Household Batteries – Lifecycle Mapping 2019
- UNEP Symposium on Plastic Waste Problems - Reducing Ocean Plastic Waste -22 May 2019, Osaka, Japan
- Brochures, leaflet, Graphic record, 3 videos (GEC). June 2020- March 2021
- UNEP Sustainability Action Online Dialogue Report - (UNEP-IETC × SCAFFF (Afunowa) dialogue 2020, Online Dialogue 2: UNEP Sustainability Action 1st Talk Event 22 December 2020, Online Dialogue 3: UNEP Sustainability Action 2nd Talk Event 31 January 2021, Online Dialogue 4: UNEP Sustainability Action 3rd Talk Event, 26 March 2021
- Outreach activities reports under UNEP Sustainability Action. March 2021
- Outreach activities reports under UNEP Sustainability Action. February 2022
- Summary report on RFP of A digital platform on environmentally sound waste management technologies. March 2021
- Video of Gender and Waste. December 2021
- Highlighted video of Global Dialogue. December 2021
- EcoPro Exhibition 2021 - 8, 9 and 10 December 2021
- Outreach Event for World Environment Day on 4 June 2022
- Outreach activities related to UNEP-IETC 30th Anniversary Event
- Global Workshop for Lesson Sharing under the International Climate Initiative (IKI) for Waste and Climate Change Project
- Campaign Report for 100 days to #BeatPlasticPollution campaign
- Training Materials of Supply, Installation, and commissioning of 1TPD Biogas System (food waste) at Jigme Namgyal Engineering College (JNEC) Student Mess. October 2022

Previous reviews/evaluations
- Middle Term Review Report 2021

Reference documents
- Terminal Evaluation of three UNEP/IETC Projects on Waste Management – Global Waste Management Outlook, Secretariat Support to the Global Partnership on Waste Management and Delivering Integrated Waste Solutions at the National and Local Level (2015-2019). May 2021
- SACEP Report – The fifteenth meeting of the Governing Council. November 2019
- INFORME PROCESO DE APOYO A LA REVISIÓN DE ESTRATEGIA NACIONAL DE RESIDUOS ORGÁNICOS 2020-2040, CHILE. 2020
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- UNEP: Global Environmental Outlook (2012)

- UNEP: Towards a Green Economy (2011)
- World Bank: What a Waste: A Global Review of Solid Waste Management (2012)
- UN Habitat: Solid Waste Management in the World's Cities (2010).

Websites:

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- OECD Evaluation Criteria
  https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm
- https://www.youtube.com/watch?v=DPHWJkfmyg0&list=PLQABsR6zglQP4nKb88yLJzC-STKQ4phA8
- http://southasia.iclei.org/
- https://www.international-climate-initiative.com/en/?iki_lang=en
- https://www.iswa.org/
- https://www.iges.or.jp/en
- https://gec.jp/
- https://leadnepal.org.np/
- https://www.mofa.go.jp/
- http://www.sacep.org/
- https://www.wwfbhutan.org.bt/
- https://asiafoundation.org/where-we-work/mongolia/
- https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- https://www.env.go.jp/en/policy/plan/intro.html
- https://www.unenvironment.org/ietc/story/voices-women-working-waste-story-bhutan
- https://www.unenvironment.org/ietc/what-we-do/capacity-building
- https://eic.mn/

ANNEX V. REVIEW ITINERARY

Date	Name	locations	Position and organisation
18/03/2024	Mr. Enkhbold Erdenebat	TAF office	Program Coordinator of TAF Mongolia, Project implementing partner
19/03/2024	Mr. S. Ariguun	TAF office	Former Head of Waste Management Department at Mayor's Office of Ulaanbaatar • Ulaanbaatar Household Waste Composition Study • Citywide regulation on waste cleaning, segregation, collection, transportation, recycling, composting, disposal and landfilling
	Ms. A. Oyun	Ministry of Environment and Tourism	Specialist at Ministry of Environment and Tourism, for • E-forms for registration and reporting on both municipal and hazardous waste • Capacity building training on solid waste database organised for database administrators and officers of respective agencies from Ulaanbaatar city and 21 provinces of Mongolia
	Mr. Gan-Od	Brandarte Office	Consultant of local EST facility manufacturer
20/03/2024	Mr. B. Delgerbayar and Ms. N. Enkhbayasgalan	TAF office	Consultant of • Gender and Waste Neus study • Nationally Determined Contribution and its Action plan • Pilot project on Estimation of Greenhouse Gas reduced from pilot project • Livestock Waste Climate Initiative for Mongolia project proposal and its preliminary study
	Mr. Tengis Tserendondog	Mongolian University of Science and Technology	Professor at Mongolian University of Science and Technology • Improvement of developed EST
21/03/2024	Ms. Ulziidelger	School no.34, Ulaanbaatar	Teacher at School no.34, EST host of pilot project, Beneficiary of pilot project
	Mr. Gantulga Ganbaatar	Ministry of Environment and Tourism	Ecotax law Specialist at Ministry of Environment and Tourism
	Mr. Batzaya Zaya	Hustai National Park	Manager at Hustai National Park, Beneficiary of pilot project
22/03/2024	Ms. Tserendorj Uranchimeg	Ministry of Environment and Tourism	Head of Department at Ministry of Environment and Tourism • Training on Sustainability Assessment of Technologies • Identification of ESTs
	Waste collectors	Ulaanbataar Land-filled site	Gender and Waste Management in Ulaanbaatar
	Mr. Enkhbold	TAF office	Program Coordinator of TAF Mongolia Implementing organisation • Wrap up meeting

ANNEX VI. PROJECT BUDGET AND EXPENDITURES

Table 17: Project Funding Sources Table

Funding source		Planned funding (USD)	% of planned funding	Secured funding (Expenditure) (USD)	% of secured funding
Cash					
Funds from the Environment Fund		0	0	239,449	1.5%
Funds from the Regular Budget		0	0	0	0
Extra-budgetary funding (listed per donor):					
1) Japan (Core)		4,569,528	24.1%	4,684,171	30.0%
2) Japan (IGES-CCET)		2,063,334	10.9%	442,802	2.8%
3) Germany (IKI)		2,487,624	13.1%	1,655,064	10.6%
4) Japan (Plastic/Covid-10 waste project)		900,089	4.7%	895,621	5.7%
5) Sweden (E-Waste activities)		496,900	2.6%	379,391	2.4%
6) Norway (E-Waste activities)		98,000	0.5%	114,194	0.7%
7) Sweden (Gender/E-Waste)		70,000	0.4%	69,979	0.4%
8) Global Environmental Foundation Centre		60,000	0.3%	59,995	0.4%
9) UN-Habitat		25,680	0.1%	22,853	0.1%
10) Norway (For Latin America (LAC) regional office)		294,000	1.5%	253,435	1.6%
11) Sweden (For LAC regional office)		49,000	0.3%	45,198	0.3%
12) GIZ/NAMA Facility (For LAC regional office)		299,114	1.6%	272,664	1.7%
13) EU-Delegation Barbados (For LAC regional office)		380,385	2.0%	739,977	4.7%
14) Sweden (SEA circular-Asia Pacific regional office)		6,371,784	33.5%	4,720,017	30.2%
15) Norway (Le Moana Taka project for Asia Pacific regional office)		50,000	0.3%	49,999	0.3%
16) Norway (ASEAN Marine Litter project for Asia Pacific regional office)		245,000	1.3%	233,333	1.5%
17) Petroleum Development Oman (For West Asia office)		100,000	0.5%	95,417	0.6%
18) Sweden (For West Asia office)		70,000	0.4%	69,911	0.4%
19) Sweden (For West Asia office)		49,000	0.3%	48,933	0.3%
20) UNDAF (For West Asia office)		140,000	0.7%	128,050	0.8%
21) Sweden (E-Waste for Europe regional office)		29,997	0.2%	16,095	0.1%
22) Sweden (Support WEEE for Europe regional office)		40,000	0.2%	39,998	0.3%

Funding source		Planned funding (USD)	% of planned funding	Secured funding (Expenditure) (USD)	% of secured funding
23) Sweden (E-Waste coalition secretariat for Europe regional office)		40,000	0.2%	40,500	0.3%
24) Sweden (WEEE policy for Africa regional office)		69,885	0.4%	69,887	0.4%
25) Japan (Mercury)		0	0%	198,109	1.3%
26) Sweden (E-Waste coalition for Economy Division)		0	0%	40,000	0.3%
Sub-total: Cash contributions		*18,999,320*	*100%*	*15,625,044*	*100%*
In-kind					
Environment Fund staff-post costs		843,000	70%	872,052	84%
Regular Budget staff-post costs		356,000	30%	167,369	16%
Sub-total: In-kind contributions		*1,199,000*	*100%*	*1,039,421*	*100%*
Co-financing*					
Co-financing cash contribution		0	0	0	0
Co-financing in-kind contribution		0	0	478,177**	100%
Sub-total: Co-financing contributions		*0*	*0*	*478,177*	*100%*
Total		20,198,320		17,142,642	

*Funding from a donor to a partner which is not received into UNEP accounts, but is used by a UNEP partner or collaborating centre to deliver the results in a UNEP – approved project.

**In-kind cofinancing includes donor contributions from the Swedish Government and the Japanese Government to support the dispatch of Junior Professional Officers to UNEP-IETC and cover their salaries during their tenure.

ANNEX VII. COMMUNICATION AND OUTREACH TOOLS

Non-exhaustive list of communication and outreach tools used for disseminating results

Toolkits/Paper/Report

- [Resource Deck: SEA Circular – Solving Plastic Pollution at Source in South-East Asia](#)
- [SEA circular Solving Plastic Pollution at Source in South-East Asia Resource Deck](#)
- [Addressing Marine Litter in Cambodia: A National Source Inventory (NSI) Approach](#)
- [Identifying Plastic Waste Leakage Hotspots and Flows in South-East Asia](#)
- [Waste Wise Cities Tool in Chonburi, Thailand](#)
- [Waste Wise Cities Tool in Tam Kỳ, Vietnam](#)
- [Waste Wise Cities Tool in Seremban, Malaysia](#)
- [Waste Wise Cities Tool in Hội An, Vietnam](#)
- [Waste Wise Cities Tool in Sihanoukville, Cambodia](#)
- [Waste Wise Cities Tool in Kep, Cambodia](#)
- [East Asian Regional Node for knowledge sharing](#)
- [Circular solutions for plastic pollution - City-university collaboration for plastic-free cities](#)
- Case study: [Waste Segregation at Source – solving Plastic Pollution in Penang](#) and [Petaling Jaya's Assessment Tax Rebate Scheme- 3R (Reduce, Reuse, Recycle) Initiatives: Solving Plastic Solution at Source in Petaling Jaya](#), under Reducing marine litter by addressing the management of the plastic value chain in Southeast Asia
- [Worksheet](#) with the Osaka City and Tennoji Zoo, World Environment Day (WED). 2022
- [Gender and Waste Management](#) 2019

Video/Social Media Toolkit

- UNEP International Environment Technology Centre - [Linkedin](#)
- [SDGs Online Festa](#) – Facebook.2022
- [International Day of Zero Waste 30 March](#).2022
- https://www.unep.org/ietc/news/story/sustainable-future-e-Waste
- [Future E-Waste Scenarios](#). 2019
- [100 days to #BeatPlasticPollution campaign](#)
- SEA of Solutions: [2019](#), [2020](#), [2021](#), [2022](#)
- [Penang State: Plastic Disclosure Project Training Programme for City Councils and Municipalities](#)
- ["Mottainai"_Rethink Your Waste (Nepali)](#)
- Documentary on Integrated Waste Management in Nepal: [Climate Change, Disasters, Gender and Air Pollution](#)
- ["Prayas (An Attempt)"](#) broadcasted in the Nepal Television Programme

- [Waste Segregation Promotional Video](#) Nepal
- [Towards Zero Waste: A Catalyst for delivering the Sustainable Development Goals](#)
- [Towards a Zero Waste Society - UNEP Sustainability Action](#). November 2022
- [GENDER AND WASTE NEXUS 1: Experiences from Bhutan, Mongolia and Nepal (youtube.com)](#). 2020
- [GENDER AND WASTE NEXUS 2: Gendered state of waste management (youtube.com)](#)- YouTube.2020
- [GENDER AND WASTE NEXUS 3: Household's role in waste management (youtube.com)](#)-2020
- [GENDER AND WASTE NEXUS 4: Towards gender-responsive policies on waste management (youtube.com)](#).2020
- [GENDER AND WASTE NEXUS 5: Empowering women in the waste sector (youtube.com)](#). 2020
- Gender and waste nexus: Experiences from [Bhutan](#), [Mongolia](#), [Nepal](#).2020

Charts/Graphs

- Brochures, leaflet, Graphic record, by GEC and IGES, as well as by other project partners.

ANNEX VIII. BRIEF CV OF THE REVIEWER

Name: Chuanrong WANG

Profession	International Evaluation Consultant
Nationality	Chinese
Country experience	• Europe: Belgium, France, Germany, Moldova • Africa: Ghana, São Tomé and Príncipe, Tanzania, Uganda, • Asia: Cambodia, China, India, Japan, Lebanon, Sri Lanka, Thailand, the Republic of Korea, Malaysia, Viet Nam, • Americas: USA
Education	• Mater of Science on International Material Flow Management, University of Applied Sciences Trier, Germany • EMBA, KEDGE Business School, France

Short biography

Ms. Chuanrong WANG is 20 years experienced Senior Expert in donor-funded projects with a focus on Circular Economy, Environment, and Sustainable Consumption and Production. Her primary role includes facilitating policy dialogues and enhancing development and cooperation from Europe to international platforms. She excels in the design, implementation, as well as monitoring and evaluation of projects, encompassing proposal evaluations and audits of project contracts. She holds a BSc in Chemistry from China, a MSc degree in International Material Flow Management from Germany, and an Executive MBA from KEDGE Business School in France.

Key specialties and capabilities cover:

- Knowledge of Chemical and Waste Management
- Experience in managing, implementing, reporting, and monitoring and evaluating projects
- Proven previous experience in evaluation of Chemicals and Waste projects at UN Agencies
- Familiarity of international donor mandates and funding management

Independent reviews/evaluations:
- Team leader for Assessment of 11 Closed Projects Under the Special Programme of Chemicals and Waste Management of UNEP (Argentina, Belarus, Benin, China, Dominican Republic Iraq, Kyrgyzstan, Moldova, Serbia, Tanzania, Uganda)
- Team Leader for Evaluation of Integrated Waste Management NAMA (now Mitigation Action Facility) National Support Project in China
- Assessor for EU Grants Applications received in the framework of the Call for Proposals of SWIM (Sustainable Water Integrated Management) II programme 2016 – Demonstration Projects
- External evaluator for Applications submitted to the EU SWITCH Asia - Promoting Sustainable Consumption and Production Calls for Proposals in 2017 and 2023
- Contract manager for Final evaluation of the EU support to SWM in Jordan in years 2013-2016; Final Evaluation of the Grant Project ACA/2010/240-213, China-EU Institute for Clean and Renewable Energy (ICARE); Ex-post evaluation of the EU Moldova Energy and Biomass Project; Mid-term Evaluation of EU Promoting Innovation and Entrepreneurship in Support to Lebanon's Clean Energy Transition; and Final Evaluation of EU Europe-China Eco Cities Link, etc.

ANNEX IX. REVIEW TORS (WITHOUT ANNEXES)

TERMS OF REFERENCE

Terminal Review of the UNEP project

521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support

Section 1: PROJECT BACKGROUND AND OVERVIEW

1. Project General Information

Table 1. Project summary

UNEP PIMS/SMA[47] ID:	37506		
Implementing Partners:	UNEP Regional Offices, the Global Environment Centre Foundation (GEC), The Institute for Global Environmental Strategies (IGES), the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET), International Solid Waste Association (ISWA), International Council for Local Environmental Initiatives (ICLEI), International Solar Energy Society, Asia Foundation (Mongolia), Leadership for Environment and Development Nepal (LEAD Nepal), World Wildlife Fund (WWF) Bhutan, GRID-Arendal, Mongolia, national and city Governments		
SDG(s) and indicator(s)	Goal 3 (target 3.9); Goal 11 (target 11.6); Goal 12 (targets 12.2, 12.4, and 12.5); Goal 13 (targets 13.1); Goal 14 (target 14.1), Goal 17 (targets 17.6, 17.7 and 17.16)		
Sub-programme:	Chemicals, waste and air quality	**Expected Accomplishment(s):**	EA(b) I, ii and iii
UNEP approval date:	28 May 2018	**Programme of Work Output(s):**	(A) knowledge products on environmentally sound methods and good practices, (B) provision of in-country technical and advisory services for design and implementation of environmentally sound technologies and approaches, and (C) promotion and dissemination of environmentally sound waste management practices and methods.
***Expected* start date:**	January 2018	**Actual start date:**	28 May 2018
***Planned* operational completion date:**	27 May 2022	**Actual operational completion date:**	31 December 2022
***Planned* total project budget at approval (*show breakdown of individual sources/grants*):**	Planned total project budget at approval : USD 22,232,293.	**Actual total expenditures reported as of [28 August 2023]:**	USD 14,066,989
***Expected* co-financing:**	USD 1,480,000	**Secured co-**	USD 850,370 (EF post) + (Regional offices' regular budget

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[47] Acronym for ID assigned by the Integrated Planning, Monitoring and Reporting (IPMR) system.

		financing[48]:	post)	
First disbursement:	November 2018	**Planned date of financial closure:**	**30 June 2024**	
No. of project revisions:	2	**Date of last approved project revision:**	**14 December 2022**	
No. of Steering Committee meetings:	0	**Date of last/next Steering Committee meeting:**	**Last:** N.A.	**Next:** N.A.
Mid-term Review/ Evaluation[49] *(planned date):*	August 2021	**Mid-term Review/ Evaluation (actual date):**	10 August 2021	
Terminal Review *(planned date):*	October 2023	**Terminal Review (actual date):**	To be confirmed	
Coverage - Country(ies):	Afghanistan, Bangladesh, Bhutan, Cambodia, Chile, Honduras, India, Indonesia, Jamaica, Kyrgyzstan, Maldives, Mongolia, Myanmar, Nepal, Pakistan, South Africa, Sri Lanka, Tanzania and Uruguay	**Coverage - Region(s):**	Global	
Dates of previous project phases:	· 531.1 Global Waste Management Outlook (PIMS ID 1875): 2 April 2015 – 31 December 2018 · 531.2 Secretariat Support to the Global Partnership on Waste Management (PIMS ID 1926): 15 September 2015 – 1 December 2019 · 534.1 Delivering Integrated Waste Solutions at the National and Local Level (PIMS ID 1884): 29 April 2015 – 31 March 2019	**Status of future project phases:**	Integrated Solid Waste Management towards Zero Waste tin October 2023	

2. Project Rationale

The "Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and In-Country Technical and Advisory Support" project was designed to address the pressing global challenges posed by the escalating complexities in waste generation and composition. As waste streams became more diverse and hazardous, they posed significant threats to both the environment and public health. The need for effective waste management strategies had never been more crucial. This project built upon the foundation of previous initiatives and endeavours to drive positive change through comprehensive knowledge support, in-country technical and advisory assistance, and widespread awareness raising.

Context and Justification:

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[48] State whether co-financing amounts are cash or in-kind.
[49] UNEP policies require projects with planned implementation periods of 4 or more years to have a mid-point assessment of performance. For projects under 4 years, this should be marked as N/A.

In recent years, the world has witnessed exponential growth in waste generation. This surge introduced new complexities, including hazardous waste streams, which in turn, led to grave environmental degradation and adverse public health consequences. A prime example of this challenge was the burgeoning E-waste stream, fuelled by increased consumption and shorter lifecycles of electrical and electronic products. The repercussions of inadequate waste management practices extended far beyond pollution, affecting necessities such as clean air, water, and food. The repercussions were particularly severe for vulnerable communities including waste pickers, migrants, the unemployed, disabled, elderly individuals, women, and children.

The existing scenario revealed a stark reality: although progress was made in middle-income countries in terms of municipal solid waste (MSW) collection, low-income countries further continued to lag behind, with a median collection coverage of merely 50%. Shockingly, an estimated 2 billion people globally lacked access to proper solid waste collection services. It was within this landscape that a holistic approach to waste management becomes paramount, grounded in the principles of the waste hierarchy—waste prevention, reduction through reuse and recycling, and proper disposal. By enhancing waste management practices, we would be able to catalyse a chain reaction of positive impacts, ranging from pollution reduction to public health enhancement, while also prioritizing the wellbeing of vulnerable groups and driving poverty alleviation.

The foundation of this project rested upon the consolidation and expansion of the efforts of the UN Environment International Environmental Technology Centre (IETC). Four pivotal projects on waste management—integrated waste solutions, waste management outlooks, Global Partnership on Waste Management support, and waste management techniques and guidance—laid the groundwork for this undertaking. A comprehensive evaluation of these endeavours highlighted the potential of knowledge support, technical and advisory assistance, and outreach and awareness campaigns in tandem, advocating for a cohesive approach to waste management.

In alignment with this recommendation, the project's designed centres on three interlinked components:

Knowledge Support: Through the dissemination of expertise and insights, this component aimed to empower national and local governments to make informed decisions and implement effective waste management strategies.

In-Country Technical and Advisory Support: By providing direct, hands-on assistance, this component assisted governments in overcoming challenges specific to their contexts, ensuring the implementation of environmentally sound waste management practices.

Outreach and Awareness Raising: This component sought to ignite widespread awareness and participation, engaging stakeholders from the private sector to local entrepreneurs and workers, driving the shift from waste to resources and establishing a formalised waste management sector.

It was worth noting that this project's scope was not confined solely to environmental aspects. Its impact extended to the fulfilment of the UN Environment medium-term strategy (2018-2021) through the development and implementation of policies, legal frameworks, and institutional mechanisms for waste prevention and management in line with multilateral environmental agreements. Additionally, the project aligned with multiple Sustainable Development Goals (SDGs), including health (Goal 3), sustainable cities (Goal 11), responsible consumption and production (Goal 12), climate change (Goal 13), life below water (Goal 14) and partnerships (Goal 17), reinforcing its contribution to broader global agendas.

The "Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and In-Country Technical and Advisory Support" project emerged as a response to the urgent need for comprehensive waste management strategies. By harnessing knowledge, technical support, and awareness, the project endeavours to transform waste challenges into opportunities for environmental preservation, public health enhancement, and the empowerment of vulnerable populations. Its alignment with international strategies and SDGs underscored its

potential to be a catalyst for positive change on a global scale.

3. Project Results Framework

The project's results framework is structured to achieve its overarching objective of supporting national and local governments in improving waste management. It comprises three main components, each with specific outputs, outcomes, and long-lasting impacts. The project's Theory of Change diagram illustrates the causal linkages between the components, outputs, and outcomes to achieve the desired impact.

Project Objective:

The project aims to support national and local governments to improve waste management through knowledge support, in-country technical & advisory support, and awareness raising.

Component A: Knowledge Products on Environmentally Sound Methods and Good Practice (Component I)

This component aimed to expand the knowledge base of environmentally sound waste management through the development of updated knowledge products. Drawing upon the Global Waste Management Outlook 2015, regional waste management outlooks, and IETC's guidelines, this output furthered the understanding of waste management progress and policies. An updated Global Waste Management Outlook was developed to highlight global advancements in policy and programmatic actions for waste management at national and city levels. The objective was to align these efforts with relevant Sustainable Development Goals (SDGs), such as Goal 11.6.1, Goal 12.3.1, Goal 12.4.2, and Goal 12.5.1, to assist countries in measuring their progress against commitments.

Tailored regional waste management outlooks were also created for specific regions, such as Africa, West Asia, and Small Island Developing States (SIDS). These regional outlooks not only tracked policy development progress but also addressed region-specific technical and policy concerns. The anticipated impact of this component was to inform waste management policy-making processes and contribute to better decision-making and improved waste management practices both globally and regionally.

· **Activity 1:** Develop Global Waste Management Outlook-2: The initiative commences with the development of an updated Global Waste Management Outlook. This endeavour systematically captures and analyses global advancements in waste management policies, strategies, and practices. These insights are thoughtfully harmonised with pertinent Sustainable Development Goals (SDGs), framing an informed trajectory for policy decisions.

· **Activity 2:** Develop Regional Waste Management Outlooks: Transitioning to localised contexts, tailored regional waste management outlooks are meticulously crafted. These outlooks discern region-specific complexities, unravelling localised challenges and solutions. Through this activity, comprehensive regional waste management strategies emerge, customised for unique geographies such as Africa, West Asia, and Small Island Developing States (SIDS).

· **Activity 3:** Develop Tools, Guidelines, and Methodologies: Propelled by insights, a suite of tools, guidelines, and methodologies is methodically established. These resources become instrumental in furnishing stakeholders with the knowledge and adeptness to navigate the intricate landscape of environmentally sound waste management practices, consequently fostering informed decisions.

Output A: Knowledge Products on Environmentally Sound Methods and Good Practices: This repository encapsulates the amalgamation of insights, serving as a reservoir of knowledge to inform stakeholders' waste management decisions.

Component B: Provision of In-Country Technical and Advisory Services (Component II)

This component delved into providing on-the-ground support by collaborating with national and local authorities to enhance waste management frameworks. The approach involved

strengthening existing waste management systems within beneficiary countries through dialogue and consultation. Appropriate policy and market-based mechanisms were identified in collaboration with stakeholders to facilitate the adoption of innovative environmental technologies and approaches. The "waste as a resource" concept was emphasised, focusing on waste prevention and the efficient management of segments like e-waste.

Technical capacity building was a key component, empowering stakeholders to drive change within their communities. Financing options and green financing mechanisms were developed, encouraging investment in sustainable waste management solutions. The expected impact was seen in the strengthened waste management infrastructure within beneficiary countries, aided by improved policies, aligned market mechanisms, and increased technical expertise.

- **Activity 4:** Knowledge Products on Environmentally Sound Methods and Good Practices: The culmination of global and regional insights crystallises in the creation of knowledge products. These materials become instrumental assets, shedding light on a trajectory towards enhanced waste management practices. Stakeholders glean from these products, empowering themselves to steer substantive change.

- **Activity 5:** Support Development and Implementation of Pilot Demonstration Projects: Tangibility is infused into the project through pilot demonstration projects. These initiatives serve as concrete exemplars, showcasing innovative waste management technologies and approaches. Practical implementation manifests potentiality, inspiring communities to adopt sustainable practices.

Output B: Provision of In-Country Technical and Advisory Services for Design and Implementation of Environmentally Sound Technologies and Approaches: The project's expertise materialises in the form of technical and advisory services. National and local authorities are fortified with expertise to embrace innovative waste management solutions.

Component C: Promotion and Dissemination of Environmentally Sound Waste Management Practices (Component III)

This component cantered on raising awareness and disseminating knowledge about environmentally sound waste management practices. The effort aimed to bridge the gap between knowledge creation and practical implementation by fostering global outreach and education. Integrating with components A and B, a concerted effort was made to educate and engage stakeholders, including civil society organizations. The primary objective was to increase awareness of effective waste management practices and to highlight the broader benefits associated with these practices, such as environmental preservation, improved public health, and economic growth.

The integration of civil society organizations in these efforts underscored the importance of community involvement and advocacy. The anticipated impact was twofold: firstly, elevating waste management on political agendas, thus ensuring its priority, and secondly, driving the successful implementation of waste management strategies developed under the project by ensuring engagement and cooperation from various stakeholders.

- **Activity 6:** Disseminate Knowledge: Bridging the chasm between knowledge and action, knowledge dissemination becomes paramount. Insights are actively shared, fostering dialogues, kindling awareness, and catalysing discourse on the imperative need for transformation.

- **Activity 7:** Implement Pilot Certificate Courses: The project's essence is distilled into pilot certificate courses. Through these courses, stakeholders are equipped with essential proficiencies and insights, becoming catalysts for advocating environmentally sound waste management practices within their spheres.

- **Activity 8:** Convene Dialogues: Fostering collaboration, dialogues convene diverse stakeholders in conversation. Collectively, these dialogues accentuate the significance of environmentally sound waste management practices. Shared ownership becomes a

cornerstone, galvanizing coordinated action.

Output C: Promotion and Dissemination of Environmentally Sound Waste Management Practices and Methods: This output serves as a clarion call, advocating for environmentally friendly practices through awareness campaigns, fostering a ripple effect across communities.

Outcomes: These outputs coalesce to precipitate transformative outcomes: Policies and Practices for Waste Prevention and Sound Management Developed or Implemented in Countries Using UN Environment Guidance: Synthesised from insights, policies and practices align with international standards, directing the course of waste management at a national scale.

Expected Accomplishment: Policies, Legal, Institutional, and Fiscal Strategies and Mechanisms for Waste Prevention and Sound Management Developed or Implemented in Countries within the Framework of Relevant Multilateral Environmental Agreements: Project influence extends, as waste management strategies harmonise with multilateral agreements, imparting a global framework for best practices.

Intermediate State: These aligned outcomes culminate in an intermediate state characterised by environmentally sound waste management practices grounded in the "waste as a resource" approach. This shift towards sustainable waste prevention, efficient segregation, and proper treatment is facilitated by stakeholder collaboration and commitment

Assumptions and Drivers: Throughout this trajectory, key assumptions and drivers underpin progression. The unwavering commitment of governments and stakeholders, coupled with political will and adequate financing, forms the cornerstone for transformative change. Stakeholder engagement, ownership, and awareness campaigns act as the driving forces, propelling waste management transformation.

Long-Lasting Impacts: The cumulative impact of these three components has been transformative and enduring. By improving waste management practices on a global scale, the project contributed to enhancing waste management infrastructures at both national and local levels. This, in turn, led to significant environmental and public health benefits, as well as the empowerment of communities and stakeholders engaged in waste management efforts. Moreover, the project's alignment with multiple SDGs—including health, sustainable cities, responsible consumption, climate change, and partnerships—created a positive ripple effect, advancing broader global agendas and fostering a sustainable future.
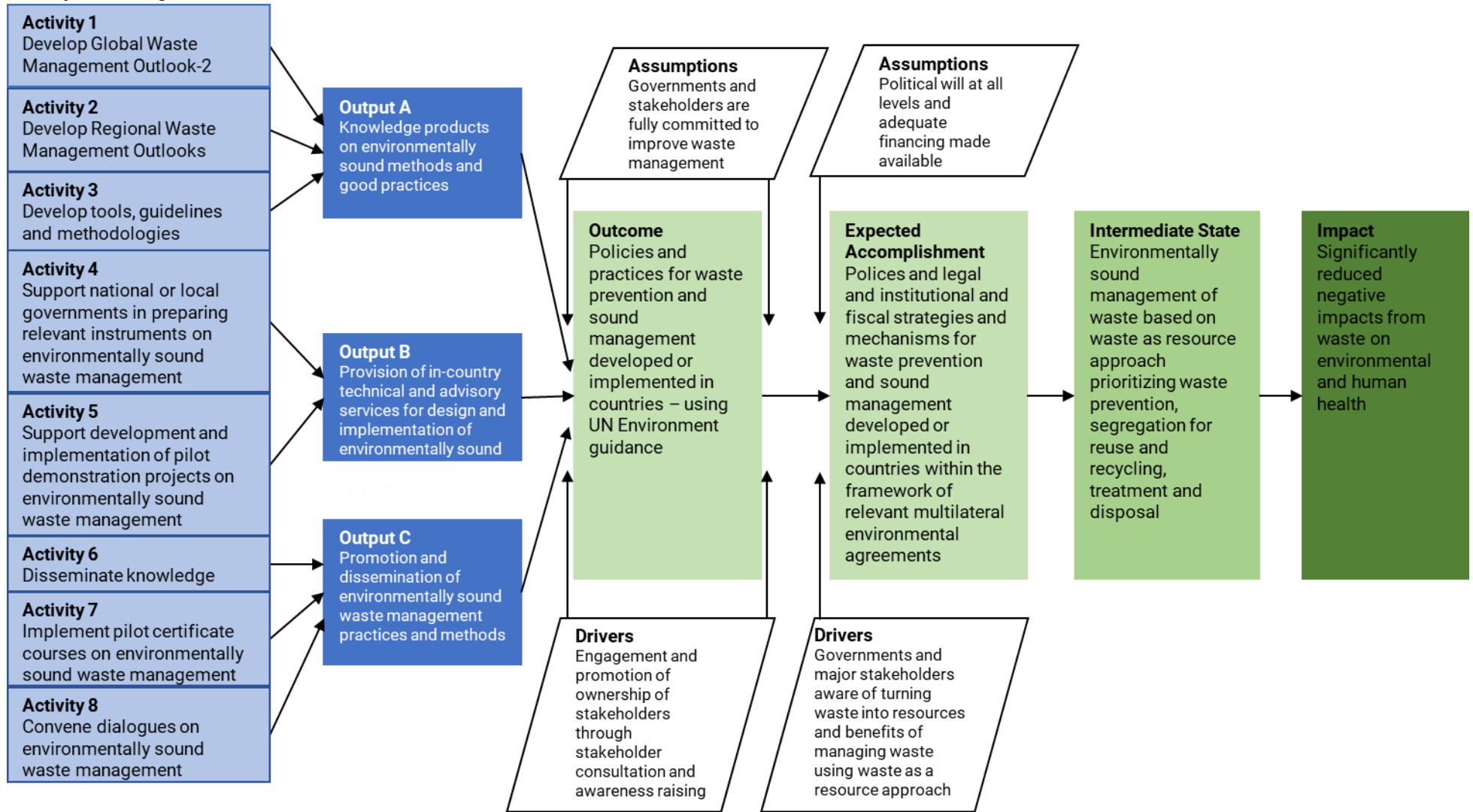
Table1: Summary of Components, Outputs, Outcomes, and Long-Lasting Impacts

Component	Output	Outcome	Long-Lasting Impact
A. Knowledge Products on Environmentally Sound Methods and Good Practice (Component I)	- Development of updated Global Waste Management Outlook - Regional Waste Management Outlooks for specific regions	- Enhanced global understanding of waste management progress and policy actions - Strengthened regional waste management strategies and policies	- Improved waste management policy formulation and decision-making - Enhanced regional waste management practices and collaboration
B. Provision of In-Country Technical and Advisory Services (Component II)	- Enhanced waste management frameworks in beneficiary countries - Support for policy and market mechanisms adoption	- Strengthened waste management infrastructure and strategies - Facilitated dialogue and alignment of policies for sustainable waste management	- Improved adoption of innovative waste management technologies - Increased integration of environmentally friendly technologies

| C. Promotion and Dissemination of Environmentally Sound Waste Management Practices (Component III) | - Global outreach and education program on waste management technologies
- Integration of civil society organizations in outreach efforts | - Raised awareness of sound waste management practices
- Enhanced engagement of civil society in waste management initiatives | - Elevated waste management priorities and enhanced stakeholder engagement
- Sustained community involvement and advocacy |

Theory of Change: Within the context of the UNEP project, a systematic progression unfolds, orchestrated to effect transformative shifts in waste management practices. This orchestrated sequence of activities, outputs, and outcomes converges to drive impactful change, resonating through policies, practices, and global standards.

Theory of Change

Activity 1
Develop Global Waste Management Outlook-2

Activity 2
Develop Regional Waste Management Outlooks

Activity 3
Develop tools, guidelines and methodologies

Activity 4
Support national or local governments in preparing relevant instruments on environmentally sound waste management

Activity 5
Support development and implementation of pilot demonstration projects on environmentally sound waste management

Activity 6
Disseminate knowledge

Activity 7
Implement pilot certificate courses on environmentally sound waste management

Activity 8
Convene dialogues on environmentally sound waste management

Output A
Knowledge products on environmentally sound methods and good practices

Output B
Provision of in-country technical and advisory services for design and implementation of environmentally sound

Output C
Promotion and dissemination of environmentally sound waste management practices and methods

Assumptions
Governments and stakeholders are fully committed to improve waste management

Assumptions
Political will at all levels and adequate financing made available

Outcome
Policies and practices for waste prevention and sound management developed or implemented in countries – using UN Environment guidance

Expected Accomplishment
Polices and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the framework of relevant multilateral environmental agreements

Intermediate State
Environmentally sound management of waste based on waste as resource approach prioritizing waste prevention, segregation for reuse and recycling, treatment and disposal

Impact
Significantly reduced negative impacts from waste on environmental and human health

Drivers
Engagement and promotion of ownership of stakeholders through stakeholder consultation and awareness raising

Drivers
Governments and major stakeholders aware of turning waste into resources and benefits of managing waste using waste as a resource approach

4. Executing Arrangements

UNEP Branch and Unit Responsible for Project Implementation:

The execution of the project was under the stewardship of UNEP-IETC, in tandem with UN Environment's regional offices spanning Africa, Asia Pacific, Europe, Latin America and Caribbean, and West Asia. These regional offices played a crucial role in leveraging their networks and expertise to facilitate effective implementation in participating countries.

Project Execution Partners:

The project implementation structure was characterised by a comprehensive management and supervision framework, as outlined in Figure 4.1. Key elements of this framework included:

1) **Project Manager and Programme Officers**: The IETC appointed a Project Manager who bore the responsibility of ensuring the on-time and high-quality execution of activities and outputs. Supporting the Project Manager were three Programme Officers entrusted with tasks such as activity planning, report drafting, budget management, and daily operational duties. A dedicated Communication Officer and Project Assistants were instrumental in public communication and administrative functions.

2) **Chemicals, Waste and Air Quality Regional Coordinators:** These regional coordinators contributed domain-specific knowledge and offered consultations, aiding the Project Manager in informed decision-making and project direction.

3) **International Advisory Board (IAB):** Reporting to the IETC Director, the Project Manager provided biannual updates to the International Advisory Board of the International Environmental Technology Centre. This board consisted of experts from diverse backgrounds, providing valuable policy-level and technical guidance on the project's strategic trajectory.

4) **UNEP Divisions and Entities:** The project sought additional expertise and support from relevant UN Environment Divisions, such as the Law Division and the Communication Division. Collaborations with entities like resource efficiency, education units, circular economy, and International Resource Panel enriched the project's capacity to deliver outputs effectively.

5) **UNEP Regional Offices and National Focal Points (NFPs):** UNEP Regional Offices played a pivotal role in achieving project outputs, supported by chemicals, waste, and air quality regional coordinators. For each participating country, National Focal Points (NFPs) and National Implementing Agencies (NIAs) were identified to oversee project implementation at the national level.

6) **National Implementing Agencies and Stakeholders Group:** National Implementing Agencies, which included specialised institutions and national or city-level government agencies, were entrusted with project execution. A Stakeholders Group, convened under the auspices of the national focal point in each country, brought together relevant ministries, municipalities, and other stakeholders.

This multi-faceted execution structure ensured streamlined coordination, expert guidance, and active collaboration, successfully achieving the project's objectives and advancing sustainable waste management practices in partnership with nations and regions.

5. Project Cost and Financing

Overall Budget	Amount
A: Previously approved planned budget (from the last revision)	**USD 12,353,460**
B: Previously secured budget (JCL (Core+IGES)+ IKI+PSC)	**USD 9,120,485**
C: Total change of secured budget [sum of 1-21]	**USD 9,878,833**
1) Government of Japan (Plastic/COVID-19 waste Project)	USD 900,089 (incl. 13 PSC %)
2) SIDA (E-waste activities)	USD 496,900 (incl. 8 PSC %)
3) Norway (E-waste activities)	USD 98,000 (incl. 8 PSC %)
4) SIDA (Gender/e-Waste)	USD 70,000 (incl. 8 PSC %)
5) GEC	USD 60,000 (incl. 13 PSC %)
6) UN-Habitat	USD 25,680 (incl. 7 PSC %)
7) Norway/NFL (LAC regional office)	USD 294,000 (incl. 8 PSC %)
8) SIDA (LAC regional office)	USD 49,000 (incl. 8 PSC %)
9) GIZ/NAMA Facility (LAC regional office)	USD 299,114 (incl. 13 PSC %)
10) EU-Delegation Barbados (LAC regional office)	USD 380,385 (incl. 7 PSC %)
11) SIDA (SEA circular-Asia Pacific reginal office)	USD 6,371,784 (incl. 8 PSC %)
12) Norway (Le Moana Taka)	USD 50,000 (incl. 8 PSC %)
13) Norway (ASEAN Marine Litter)	USD 245,000 (incl. 8 PSC %)
14) Petroleum Development Oman (West Asia office)	USD 100,000 (incl. 13 PSC %)
15) SIDA (West Asia office)	USD 70,000 (incl. 8 PSC %)
16) SIDA (West Asia office)	USD 49,000 (incl. 8 PSC %)
17) UNDAF (West Asia office)	USD 140,000 (incl. 7 PSC %)
18) SIDA (E-waste – Europe reginal office)	USD 29,997 (incl. 8 PSC %)
19) SIDA (Support WEEE – Europe regional office)	USD 40,000 (incl. 8 PSC %)
20) SIDA (E-waste coalition secretariat – Europe reginal office)	USD 40,000 (incl. 8 PSC %)
21) SIDA (WEEE policy – Africa regional office)	USD 69,885 (incl. 8 PSC %)
D: Total revised secured budget (B+C)	**USD 18,999,319**
E: Unsecured budget (F-D)	**USD 3,232,975**
F: New total for proposed planned budget (A+C)	**USD 22,232,293**

Total disbursement figure as of 28 August 2023: USD 14,066,989.

6. Implementation Issues

As of the stage to prepare the ToR for the terminal review of the 521.1 Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support in August 2023, the project demonstrated a remarkable alignment with its original objectives and outcomes. Throughout its implementation journey, several significant aspects and challenges were encountered, contributing to a comprehensive evaluation of the project's execution. Notable findings and observations are presented as follows:

Mid-term Review and Implementation Progress: The mid-term review conducted in 2021 reaffirmed the project's steady progress, with no major impediments encountered during the implementation phase. It was noted that the project adapted efficiently to the challenges posed by the COVID-19 pandemic, transitioning seamlessly to telecommuting and recalibrating activities to accommodate the pandemic's impact.

Project Continuity and Alignment: A striking observation from the mid-term review was the project's continuity, building upon the foundation of three preceding UNEP IETC projects (531.1, 531.2, and 534.1). The core components of the project were either continuations or extensions of activities from previous projects, reinforcing thematic alignment and capitalizing on established partnerships.

Achievement of Key Milestones: Substantial progress was evident in the achievement of key milestones outlined in the project's results framework. The Global Waste Management Outlook-2 (GWMO-II) neared its final stages of completion, and Regional Waste Management Outlooks (RWMOs) for LAC, SIDS, and West Asia were successfully launched. Noteworthy achievements encompassed the formulation of national and city-level waste management strategies, initiation of pilot demonstration projects, and the provision of

training courses across various regions.

Relevance and Collaboration: Stakeholders uniformly acknowledged the project's high relevance, aligning seamlessly with UNEP's strategic priorities, regional agendas, and donor objectives. The project fostered strong collaborations with a network of partners, including UNEP Regional Offices, strategic entities, and implementing partners. These collaborations played a pivotal role in achieving anticipated milestones and outputs.

Theory of Change and Achievement Assessment: The mid-term review also reflected on the Theory of Change (TOC) employed in the project, which guided the progression towards the desired outcomes. Assessments indicated varying degrees of achievement across the different outputs and outcomes. Output A, concerning knowledge and awareness enhancement, was partially achieved, while Output B, focused on in-country technical and advisory services, was fully attained. The direct outcome and project outcome exhibited a mix of partial achievements, with progress varying across contexts.

COVID-19 Impacts and Positive Outcomes: The COVID-19 pandemic cast a considerable influence on project activities, necessitating adjustments to the mode of execution. Face-to-face interactions, including workshops, were affected, leading to a shift towards online formats. Despite these challenges, the pandemic inadvertently yielded a positive effect by reducing UNEP's carbon footprint. It also led to extended timelines for certain activities, such as the completion of the GWMO-II and pilot projects.

Human Resources and Operational Resilience: Notably, a reduction in human resources at UNEP IETC did not impede project implementation due to the established collaborations with partner organizations. Reporting continued as planned, although opportunities for improved information and knowledge management were identified. The reduction in staff potentially contributed to these areas for enhancement.

Communication, Gender, and Vulnerable Groups: Communication efforts were noted to have potential for improvement, as some stakeholders were not fully aware of the project's outputs. Gender and vulnerable groups were adequately addressed, with a focus on gender-related aspects within the RWMOs and a dedicated report on the gender and waste nexus.

The implementation phase of the project exemplified efficient adaptation to challenges, substantial progress in achieving milestones, strong thematic relevance, and collaborative partnerships. The influence of the COVID-19 pandemic was navigated adeptly, yielding positive outcomes in addition to challenges. The project's strategic alignment, continuity, and contributions to waste management were evident, underscoring its resonance with UNEP's objectives and global priorities.

Section 2. OBJECTIVE AND SCOPE OF THE REVIEW

7. Objective of the Review

In line with the UNEP Evaluation Policy[50] and the UNEP Programme Manual[51], the Terminal Review (TR) is undertaken at operational 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 Review 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 main project partners. Therefore, the Review will identify lessons of operational relevance for future project formulation and implementation, especially for future phases of the project, where applicable.

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[50] https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies
[51] https://wecollaborate.unep.org

8. Key Review principles

Review findings and judgements will be based on **sound evidence and analysis**, clearly documented in the Review Report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

The "Why?" Question. As this is a Terminal Review and a follow-up project is likely, particular attention will be given to learning from the experience. Therefore, the "*why?*" question should be at the front of the consultant(s)' minds all through the review exercise and is supported by the use of a theory of change approach. This means that the consultant(s) need to go beyond the assessment of "*what*" the project performance was and make a serious effort to provide a deeper understanding of "*why*" the performance was as it was (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.

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 <u>over time</u> and <u>between contexts</u> 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 reviews. Establishing the *contribution* made by a project in a complex change process relies heavily on <u>prior intentionality</u> (e.g. approved project design documentation, logical framework) and the articulation of <u>causality</u> (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.

Communicating Review Results. A key aim of the Review is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the review process and in the communication of review findings and key lessons. Clear and concise writing is required on all review deliverables. Draft and final versions of the main review report will be shared with key stakeholders by the UNEP Project Manager[52]. There may, however, be several intended audiences, each with different interests and needs regarding the report. The consultant will plan with the UNEP Project Manager which audiences to target and the easiest and clearest way to communicate the key review findings and lessons to them. This may include some or all of the following: a webinar, conference calls with relevant stakeholders, the preparation of a review brief or interactive presentation.

9. Key Strategic Questions

<u>In addition to the review criteria</u> outlined in Section 10 below, the Review will address the **strategic questions**[53] listed below (no more than 3 questions are recommended). These are questions of interest to UNEP and to which the project is believed to be able to make a substantive contribution:

(a)   Strategic questions:

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[52] For GEF funded projects, UNEP Project Manager refers to the Task Manager.
[53] The strategic questions should <u>not</u> duplicate questions that will be addressed under the standard review criteria described in section 10.

1) To what extent did the project's interventions effectively enhance waste management practices in the participating countries and regions, contributing to the advancement of environmentally sound technologies and methods? Please provide an analysis of the alignment between project activities and the specific waste management challenges faced by the target countries.

2) How well did the project engage with national and local governments, stakeholders, and partners to ensure that the proposed waste management solutions were contextually appropriate and aligned with the needs and priorities of the respective regions? Please highlight examples of successful collaboration and the resulting impact on waste management practices.

3) Considering the project's focus on knowledge support, technical advisory services, and awareness raising, how did the project contribute to the establishment of formal waste management sectors and the adoption of the waste-to-resources approach? Please provide evidence of changes in policies, strategies, and practices resulting from the project's interventions.

(b) (Where relevant) What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?

The consultant should complete the table in Annex 5 of these TOR and append it to the Final Review report.

10. Review Criteria

All review criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the review criteria. The set of review 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 availability of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance.

A suite of various tools, templates and guidelines that can help Review Consultant(s) to follow a thorough review process that meets all of UNEP's needs is available via the UNEP Project Manager.

A. Strategic Relevance

The Review will assess the extent to which the activity is suited to the priorities and policies of the donors, implementing regions/countries and the target beneficiaries. The Review 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's Medium-Term Strategy[54] (MTS), Programme of Work (POW) and Strategic Priorities

The Review 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. UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity

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[54] 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

Building[55] (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/Partner Strategic Priorities

Donor strategic priorities will vary across interventions. The Review will assess the extent to which the project is suited to, or responding to, donor priorities. In some cases, alignment with donor priorities may be a fundamental part of project design and grant approval processes while in others, for example, instances of 'softly-earmarked' funding, such alignment may be more of an assumption that should be assessed.

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

The Review will assess the alignment of the project with global priorities such as the SDGs and Agenda 2030. 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 will also be considered. Examples may include: UN Development Assistance Frameworks (UNDAF) or, national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc. Within this section consideration will be given to whether the needs of all beneficiary groups are being met and reflects the current policy priority to leave no-one behind.

iv.   Complementarity with Relevant Existing Interventions/Coherence[56]

An assessment will be made of how well the project, either at design stage or during the project inception or mobilization[57], took account of ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies within the same country, sector or institution) that address similar needs of the same target groups. The Review will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimised any synergies and avoided duplication of effort. Examples may include work within Cooperation 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.

B. Quality of Project Design

The quality of project design is assessed using an agreed template during the review inception phase. Ratings are attributed to identified criteria and an overall Project Design Quality rating is established. The complete Project Design Quality template should be annexed in the Review Inception Report. Later, the overall Project Design Quality rating[58] should be entered in the final review ratings table (as item B) in the Main Review Report and a summary of the project's strengths and weaknesses at design stage should be included within the body of the Main Review Report.

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[55] http://www.unep.fr/ozonaction/about/bsp.htm
[56] This sub-category is consistent with the new criterion of 'Coherence' introduced by the OECD-DAC in 2019.
[57] 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.
[58] In some instances, based on data collected during the review process, the assessment of the project's design quality may change from Inception Report to Main Review Report.

C. Nature of External Context

At review inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval[59]). This rating is entered in the final review 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 Review Consultant and UNEP Project Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Availability of Outputs[60]

The Review will assess the project's success in producing the programmed outputs and making them available to the intended beneficiaries as well as its success in 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 Theory of Change (TOC). In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The availability 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 provision. It is noted that emphasis is placed on the performance of those outputs that are most important to achieve outcomes. The Review will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards.

ii. Achievement of Project Outcomes[61]

The achievement of project outcomes is assessed as performance against the outcomes as defined in the reconstructed[62] Theory of Change. These are outcomes that are intended to be achieved by the end of the project timeframe and within the project's resource envelope. Emphasis is placed on the achievement of project outcomes that are most important for attaining intermediate states. As with outputs, a table can be used to show where substantive amendments to the formulation of project outcomes is necessary to allow for an assessment of performance. The Review should report evidence of attribution between UNEP's intervention and the project 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 project outcomes realised.

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[59] 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. From March 2020 this should include the effects of COVID-19.

[60] 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)

[61] 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)

[62] UNEP staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during a review 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 review.

iii. Likelihood of Impact

Based on the articulation of long-lasting effects in the reconstructed TOC *(i.e. from project outcomes, via intermediate states, to impact)*, the Review 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-lasting impacts. The Evaluation Office's approach to the use of TOC in project reviews is outlined in a guidance note and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from project outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

The Review will also consider the likelihood that the intervention may lead, or contribute to, underlined negative effects (e.g. will vulnerable groups such as those living with disabilities and/or women and children, be disproportionally affected by the project?). Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental and Social Safeguards.

The Review will consider the extent to which the project has played a catalytic role[63] or has promoted scaling up and/or replication as part of its Theory of Change (either explicitly as in a project with a demonstration component or implicitly as expressed in the drivers required to move to outcome levels) and as factors that are likely to contribute to greater or long-lasting impact.

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-lasting or broad-based changes. However, the Review 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).

E. Financial Management

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 Review 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 Review 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 Review will record where standard financial documentation is missing, inaccurate, incomplete or unavailable in a timely manner. The Review will assess the level of communication between the UNEP Project Manager and the Fund Management Officer as it

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[63] The terms catalytic effect, scaling up and replication are inter-related and generally refer to extending the coverage or magnitude of the effects of a project. Catalytic effect is associated with triggering additional actions that are not directly funded by the project – these effects can be both concrete or less tangible, can be intentionally caused by the project or implied in the design and reflected in the TOC drivers, or can be unintentional and can rely on funding from another source or have no financial requirements. Scaling up and Replication require more intentionality for projects, or individual components and approaches, to be reproduced in other similar contexts. Scaling up suggests a substantive increase in the number of new beneficiaries reached/involved and may require adapted delivery mechanisms while Replication suggests the repetition of an approach or component at a similar scale but among different beneficiaries. Even with highly technical work, where scaling up or replication involves working with a new community, some consideration of the new context should take place and adjustments made as necessary.

relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach.

F. Efficiency

Under the efficiency criterion, the Review will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution.

Focusing on the translation of inputs into outputs, *cost-effectiveness* is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. *Timeliness* refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The Review 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 Review will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

The Review will give special attention to efforts made by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities[64] with other initiatives, programmes and projects etc. to increase project efficiency.

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

G. Monitoring and Reporting

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

i. Monitoring Design and Budgeting

Each project should be supported by a sound monitoring plan that is designed to track progress against SMART[65] results towards the achievement of the project's outputs and outcomes, including at a level disaggregated by gender, marginalisation or vulnerability, including those living with disabilities. In particular, the Review will assess the relevance and appropriateness of the project indicators as well as the methods used for tracking progress against them as part of conscious results-based management. The Review 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, where applicable.

ii. Monitoring of Project Implementation

The Review will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards project objectives throughout the project

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[64] Complementarity with other interventions during project design, inception or mobilization is considered under Strategic Relevance above.
[65] SMART refers to results that are specific, measurable, achievable, relevant and time-oriented. Indicators help to make results measurable.

implementation period. This assessment will include consideration of whether the project gathered relevant and good quality baseline data that is accurately and appropriately documented. This should include monitoring the representation and participation of disaggregated groups, including gendered, marginalised or vulnerable groups, such as those living with disabilities, in project activities. It will also consider the quality of the information generated by the monitoring system during project implementation and how it was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The Review should confirm that funds allocated for monitoring were used to support this activity.

iii. Project Reporting

UNEP has a centralised Project Information Management System (PIMS) in which project managers upload six-monthly progress reports against agreed project milestones. This information will be provided to the Review Consultant(s) by the UNEP Project Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team. The Review 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.

H. Sustainability

Sustainability[66] is understood as the probability of the benefits derived from the achievement of project outcomes being maintained and developed after the close of the intervention. The Review will identify and assess the key conditions or factors that are likely to undermine or contribute to the endurance of achieved project outcomes (i.e. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an <u>assessment of bio-physical factors</u> that may affect the sustainability of direct outcomes may also be included.

i. Socio-political Sustainability

The Review will assess the extent to which social or political factors support the continuation and further development of the benefits derived from 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 Review will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

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 natural resource management approach. The Review 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 outcomes have been

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[66] 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)

extended into a future project phase. <u>Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.</u>

iii. Institutional Sustainability

The Review 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 Review will consider whether institutional capacity development efforts are likely to be sustained.

I. Factors Affecting Project Performance and Cross-Cutting Issues

i.   Preparation and Readiness

This criterion focuses on the inception or mobilisation stage of the project (i.e. the time between project approval and first disbursement). The Review 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 Review will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. *(Project preparation is included in the template for the assessment of Project Design Quality).*

ii.   Quality of Project Management and Supervision

In some cases 'project management and supervision' may refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others it may refer to the project management performance of an implementing partner and the technical backstopping and supervision provided by UNEP. The performance of parties playing different roles should be discussed and a rating provided for both types of supervision (UNEP/Implementing Agency; Partner/Executing Agency) and the overall rating for this sub-category established as a simple average of the two.

The Review 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.); maintaining project relevance within changing external and strategic contexts; 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

Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs, target users of project outputs and any other collaborating agents external to UNEP and the implementing partner(s). 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 Equality

The Review 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 Review will assess to what extent the intervention adheres to UNEP's Policy and Strategy for Gender Equality and the Environment[67].

The report should present the extent to which the intervention, following an adequate gender analysis at design stage, has implemented the identified actions and/or applied adaptive management to ensure that Gender Equality and Human Rights are adequately taken into account. In particular the Review will consider to what extent project design, 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 and those living with disabilities) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially women, youth and children and those living with disabilities) 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, or mitigation of potential environmental and social risks and impacts associated with project and programme activities. The Review will confirm whether UNEP requirements[68] 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 *report* 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 reviewed above under Quality of Project Design).

The Review will also consider the extent to which the management of the project minimised UNEP's environmental footprint.

vi. *Country Ownership and Driven-ness*

The Review 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, i.e. either: a) moving forwards from outputs to project outcomes or b) moving forward from project outcomes towards intermediate states. The Review 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

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[67] The Evaluation Office notes that Gender Equality was first introduced in the UNEP 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

[68] 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.

over outputs and outcomes and that is necessary for long term impact to be realised. Ownership should extend to all gender and marginalised groups.

vii. Communication and Public Awareness

The Review 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 Review 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 Review will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate.

Section 3. REVIEW APPROACH, METHODS AND DELIVERABLES

The Terminal Review will be an in-depth review using a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative review methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the review implementation phase in order to increase their (and other stakeholder) ownership of the review findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

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

(a)   A **desk review** of:
Relevant background documentation, inter alia:
Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;
Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and any other monitoring materials etc.;
Project deliverables (e.g. publications, assessments etc):
Mid-Term Review or Mid-Term Evaluation of the project;
Evaluations/Reviews of similar projects.
(b)   **Interviews** (individual or in group) with:
UNEP Project Manager[69] [add people as appropriate]:
Project management team;
UNEP Fund Management Officer (FMO);
Sub-Programme Coordinator;
Project partners, including [list];
Relevant resource persons.
Representatives from civil society and specialist groups (such as women's, farmers and trade associations etc).
(c)   **Surveys:** Sri Lanka

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[69] For GEF funded projects, UNEP Project Manager refers to the Task Manager.

   (d)   **Field visits**: Mongolia
   (e)   **Other data collection tools**

11. Review Deliverables and Review Procedures

See Annex 1 of these TOR for a list of tools and guidance available, see Annex 2 for a list of review criteria and sub-categories to be assessed. The Review Consultant will prepare:

- **Inception Report**: (see Annex 3 of these TOR) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, review framework and a tentative review 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 Review Report**: (See Annex 4 of these TOR) containing an Executive Summary that can act as a stand-alone document; detailed analysis of the review findings organised by review criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.

A Review Brief (a 2-page overview of the evaluand and review findings) for wider dissemination through the UNEP website may be required. This will be discussed with the UNEP Project Manager no later than during the finalization of the Inception Report.

Review of the Draft Review Report. The Review Consultant will submit a draft report to the UNEP Project Manager and revise the draft in response to their comments and suggestions. The UNEP Project Manager will then forward the revised draft report 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 UNEP Project Manager for consolidation. The UNEP Project Manager will provide all comments to the Review Consultant for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

The UNEP Evaluation Office provides templates and tools to support the review process and provides a formal assessment of the quality of the <u>final Terminal Review report</u>, which is provided within this report's annexed material. In addition, the Evaluation Office formally validates the report by ensuring that the performance judgments made are consistent with evidence presented in the Review report and in-line with the performance standards set out for independent evaluations. As such the project performance ratings presented in the Review report may be adjusted by the Evaluation Office.

At the end of the review process, the UNEP Project Manager will prepare a **Recommendations Implementation Plan** in the format of a table, to be completed and updated at regular intervals, and circulate the **Lessons Learned**.

12. The Review Consultant

The Review Consultant will work under the overall responsibility of the UNEP Project Manager (Shunichi Honda), in consultation with the Fund Management Officer (Lucy Halogo), the Head of Unit (Takehiro Nakamura) and the Sub-programme Coordinators of the Chemicals and Pollution Action Subprogramme of UNEP (Kakuko Yoshida).

The Review Consultant will liaise with the UNEP Project Manager on any procedural and methodological matters related to the Review. It is, however, the consultants' individual

responsibility (where applicable) to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organise online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Project Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the Review as efficiently and independently as possible.

The Review Consultant will be hired over a period of 3 months between January 2024 – June 2024 and should have the following: a university degree in environmental sciences, international development or other relevant political or social sciences area is required and an advanced degree in the same areas is desirable; a minimum of 7 years of technical / evaluation experience is required, preferably including evaluating large, regional or global programmes and using a Theory of Change approach; and a good/broad understanding of environmental issue, in particular waste management and pollution is desired. English and French are the working languages of the United Nations Secretariat. 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.

The Review Consultant will be responsible, in close consultation with the UNEP Project Manager, for overall quality of the review and timely delivery of its outputs, described above in Section 11 Review Deliverables, above. The Review Consultant will ensure that all review criteria and questions are adequately covered.

13. Schedule of the Review

The table below presents the tentative schedule.

Table 3. Tentative schedule for the Review

Milestone	Tentative Schedules
Inception Report	3rd week
Review Mission	3rd week to 7th week
E-based interviews, surveys etc.	3rd week to 7th week
PowerPoint/presentation on preliminary findings and	8th week to 9th week
Draft Review Report to UNEP Project Manager	8th week to 9th week
Draft Review Report shared with wider group of stakeholders	8th week to 9th week
Final Main Review Report	10th week to 11th week
Final Main Review Report submitted to the UNEP Evaluation Office for	10th week to 11th week
Final Main Review Report shared with all respondents	12th week

14. Contractual Arrangements

The Review Consultant(s) will be selected and recruited by the UNEP Project Manager under an individual Special Service Agreement (SSA) on a "fees only" basis (see below). By signing the service contract with UNEP/UNON, the consultant certifies that they have not been associated with the design and implementation of the project in any way which may jeopardise 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 sigh the Code of Conduct Agreement Form.

Fees will be paid on an instalment basis, paid on acceptance and approval by the UNEP Project Manager of expected key deliverables. The schedule of payment is as follows:

Schedule of Payment:

Deliverable	Percentage Payment
Approved Inception Report *(as per Guidance Note)*	20%
Approved Draft Main Review Report *(as per Guidance Note)*	30%
Approved Final Main Review Report *(as per Report Template)*	50%

<u>Fees only contracts:</u> Where applicable, 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 UNEP Project Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

The consultant may be provided with access to UNEP's information management systems (e.g. PIMS, IPMR, Anubis, SharePoint, etc.) and, if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the Review Report.

In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UNEP Project Manager, payment may be withheld at the discretion of the Head of Branch/Unit until the consultants have improved the deliverables to meet UNEP's quality standards.

If the consultant fails to submit a satisfactory final product to the UNEP Project Manager in a timely manner, i.e. before the end date of their contract, UNEP reserves the right to employ additional human resources to finalise the report, and to reduce the consultant's fees by an amount equal to the additional costs borne by the project team to bring the report up to standard or completion.

ANNEX X. IMPLEMENTATION PLAN OF RECOMMENDATIONS

Project Title and Reference No.: Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support, 521.1

Contact Person (TM/PM): Shunichi Honda

RECOMMENDATIONS	PLANS			
	ACCEPTED (YES/NO/PARTIALLY)	WHAT WILL BE DONE?	EXPECTED COMPLETION DATE	REPONSIBLE OFFICER/ UNIT/ DIVISION / AGENCY
1. UNEP-IETC should be strategically strengthened as the 'Centre of Excellence for Waste Management' with human resources to support Project Design, Funding Partnerships, Project Implementation, Monitoring and Reporting, and Knowledge Management.	Yes	To strategically strengthen UNEP-IETC as the Centre of Excellence for Waste Management, the following steps will be undertaken: UNEP-IETC will allocate resources to ensure adequate staffing in critical areas such as project design, funding partnerships, implementation, monitoring, and knowledge management. A comprehensive training program will be developed to build staff capacity in these key domains. To reinforce partnerships, UNEP-IETC will establish or strengthen collaborations with other UNEP divisions, regional offices, donor organisations, and industry leaders, creating a robust network of support for project activities. A new knowledge management system will be implemented to streamline the collection, analysis, and dissemination of project-related data, ensuring that lessons learned	December 2025	IETC

		are effectively shared.		
		Finally, a comprehensive monitoring and evaluation framework will be established to track project progress and outcomes, incorporating regular performance assessments to drive continuous improvement.		
		Together, these measures will reinforce UNEP-IETC's role as a leading authority in waste management and facilitate effective project execution and knowledge dissemination.		
2. Implementation engagement plan and post-project implementation plan shall be considered in the future project design, along with the identification of partner countries and cities.	Yes	To meet the recommendation to develop an implementation engagement plan and post-project implementation plan for future project designs, UNEP-IETC will undertake the following: First, a detailed implementation engagement plan will be created, outlining stakeholder roles, responsibilities, and communication strategies to ensure effective collaboration throughout the project lifecycle. A post-project implementation strategy will also be developed to maintain project sustainability, focusing on capacity building, ongoing support, and mechanisms for monitoring after the project's completion. UNEP-IETC will identify partner countries and cities through a thorough assessment, considering factors such as waste management needs, infrastructure, and	December 2025	IETC

		scalability potential. This will be complemented by robust collaboration strategies with regional and national stakeholders, ensuring contextually appropriate project design. Regular monitoring and feedback mechanisms will be established to track stakeholder engagement and make necessary adjustments. Together, these steps will create a strong framework for future projects, fostering sustainability, effective partnerships, and successful implementation.		
3. Project design criteria and monitoring schemes should be aligned with and compatible with UNEP reporting requirements, also update with an agile approach.	Yes	To align project design criteria and monitoring schemes with UNEP reporting requirements and incorporate an agile approach, UNEP-IETC will take the following actions: First, existing project design criteria and monitoring schemes will be reviewed and updated to ensure compatibility with UNEP's reporting standards, standardizing the frequency and format of reports and the metrics used. An agile approach will be integrated into the project design, enabling flexibility and adaptability to changing conditions. This will include regular feedback loops and iterative adjustments to promote continuous improvement. UNEP-IETC will also conduct training	December 2025	IETC

		sessions to ensure project teams understand the new criteria and monitoring schemes, emphasizing alignment with UNEP requirements. Stakeholder engagement will be a key part of this process, involving collaborative development to ensure the criteria are practical and contextually relevant. By implementing these steps, UNEP-IETC aims to improve project management, enhance reporting quality, and facilitate better project outcomes through flexible and adaptive practices.		
4. An advanced funding strategy should be developed in collaboration with partners and implementing cooperation organisations.	Yes	To develop an advanced funding strategy in collaboration with partners and implementing cooperation organisations, UNEP-IETC will first conduct a comprehensive assessment of its current funding sources, identifying strengths and potential gaps. Based on this assessment, UNEP-IETC will design a diversified funding strategy, incorporating multiple sources such as government grants, international funding agencies, private sector partnerships, and non-profit organisations to reduce reliance on a single funding stream. The strategy will focus on building new partnerships with governments, corporations, and NGOs to broaden the funding base and establish long-term collaboration. UNEP-IETC will also engage actively with	December 2025	IETC

		donor communities, using targeted communication materials like project reports and case studies to demonstrate the impact and value of its projects, thereby attracting new donors and strengthening ties with existing ones.		
		Additionally, the funding strategy will include a clear plan for securing resources for future projects, with timelines and milestones for achieving financial sustainability.		
		UNEP-IETC will implement monitoring mechanisms to ensure the strategy's effectiveness and adapt as needed to evolving financial conditions. This comprehensive approach aims to ensure a stable and diverse funding base, supporting the successful implementation of UNEP-IETC's waste management projects.		
5. The project monitoring plan shall be more applicable, including the aggregated data related to donor, gender, region, and nature of the activities, and concrete approach of establishment of the data.	Yes	To improve the project monitoring plan and ensure it is more applicable, UNEP-IETC will undertake several key actions.	December 2025	IETC
		First, the existing monitoring plan will be reviewed and revised to ensure it is clear, relevant, and adaptable, focusing on key aggregated data such as donor contributions, gender representation, regional variations, and the nature of project activities.		
		A clear approach to data collection will be established, detailing specific methods, tools, and processes for gathering		

		information from various sources, with specified responsibilities and collection frequencies.		
		UNEP-IETC will implement robust data management practices to store and analyse this data effectively, leveraging analytics tools to derive actionable insights. Training and capacity-building sessions will be provided to project staff to ensure accurate data collection and use of monitoring tools. Regular reporting mechanisms will be set up to keep stakeholders informed of project progress, incorporating feedback from aggregated data and allowing for continuous improvement.		
		These steps will create a monitoring plan that is comprehensive and capable of supporting effective project management and decision-making.		
6. A project steer committee or a management body shall be established for regularly governing the project implementation to facilitate communication with donors and partners, provide the decision for project.	Yes	To establish a project steering committee or management body for governing project implementation, UNEP-IETC will create a committee comprising key stakeholders, including UNEP representatives, project partners, donors, and relevant experts. The roles and responsibilities of the committee will be clearly defined, focusing on overseeing project implementation, facilitating communication with donors and partners, providing strategic guidance, and making critical decisions. Regular meetings will be scheduled to monitor project	December 2025	IETC

		progress, with communication protocols established to ensure effective information exchange. The committee's structure will emphasise inclusivity and diversity to promote balanced decision-making.		
		Feedback mechanisms will be implemented to encourage collaboration and open dialogue among committee members, while clear decision-making processes will guide how the committee reaches consensus, resolves conflicts, and approves project adjustments. These steps will create a robust governance structure that supports effective project implementation and fosters strong communication with stakeholders.		

The following is a summary of lessons learned from some of the project's experiences and based upon explicit findings of the review. They briefly describe the context from which the lessons are derived, and the potential for wider application:

Lesson Learned #1:	Lesson 1: A critical mass of staff is necessary to carry out adequate project monitoring, reporting, information and knowledge management, as well as communication activities (besides project implementation).
Context/comment:	During the course of the project, it became evident that having an adequate number of skilled staff is crucial for effective project management, particularly in areas such as monitoring, reporting, information and knowledge management, and communication. Initially, the project team faced challenges due to reduced staffing levels, which impacted the ability to maintain comprehensive tracking of project progress and manage communication with stakeholders. This shortage of personnel also strained the capacity to oversee multiple aspects of the project, leading to delays and a reduction in the quality of information flow.
	As a result, the project had to rely more heavily on external expertise and UNEP's internal human resources to fill the staffing gaps. While this strategy helped mitigate some of the issues, it also highlighted the importance of ensuring a critical mass of dedicated staff for robust project governance and execution. The lesson emphasises that sufficient staffing is not only necessary for project implementation but also for maintaining the integrity of monitoring and reporting processes, which are essential for accountability and continuous improvement. This lesson is widely applicable to similar projects, where resource constraints can hinder effective management and communication.

	Ensuring a stable and adequately staffed team should be a priority in future project planning and implementation.

Lesson Learned #2:	Strategic partnerships are conducive to well-functioning project implementation.
Context/comment:	Strategic partnerships played a significant role in ensuring the successful implementation of this project. Given the project's broad scope and the need to work across multiple regions, it became clear that collaboration with a diverse range of partners, including other UNEP divisions, regional offices, implementing agencies, governments, NGOs, and private sector organisations, was key to achieving the project's objectives.
	The formation of strategic partnerships provided several benefits. Firstly, it facilitated resource sharing, allowing the project to leverage the expertise, networks, and logistical support of partner organisations. This collaboration enhanced the project's capacity to deliver outputs effectively and expanded its reach to a wider audience.
	Secondly, strategic partnerships promoted knowledge exchange and learning. By engaging with different stakeholders, the project team gained valuable insights into local contexts, regional variations, and best practices in waste management. This exchange of information contributed to a more adaptable and responsive project approach, enabling the team to navigate challenges and tailor solutions to specific needs.
	Thirdly, these partnerships fostered a sense of shared ownership and accountability. Partners were more likely to invest in the project's success when they had a stake in its implementation and outcomes. This shared commitment encouraged greater participation, coordination, and alignment of efforts, leading to smoother project execution.
	However, establishing and maintaining strategic partnerships requires ongoing communication, clear agreements on roles and responsibilities, and mechanisms for resolving conflicts. The lesson learned is that strategic partnerships can greatly enhance project implementation, provided that these relationships are managed effectively. This concept is applicable to a wide range of projects, where the complexity and scale necessitate collaborative efforts to achieve desired results.

Lesson Learned #3:	Mainstreaming gender and human rights for vulnerable groups within advisory and technical support significantly provides best practices on addressing these issues in policy recommendations, creation, and implementation.
Context/comment:	The inclusion of gender and human rights for vulnerable groups has become a key focus in many development projects, including those dealing with waste management. The context for this lesson learned stems from the realization that addressing these aspects is critical for achieving broader social equity and ensuring that project

outcomes benefit all stakeholders equitably.

During the project's implementation, efforts to mainstream gender and human rights for vulnerable groups were incorporated into advisory and technical support activities. This approach had a significant impact on the quality and inclusiveness of the project's policy recommendations, design, and implementation.

Mainstreaming gender involved recognizing and addressing the different needs and challenges faced by men and women in waste management. This was accomplished by ensuring that women were represented in decision-making processes, participating in capacity-building activities, and having access to resources and opportunities within the project framework. Additionally, technical support was designed to consider the roles of women and other vulnerable groups in the waste management sector, acknowledging their contributions and providing tailored support

By focusing on human rights, the project aimed to ensure that all individuals, regardless of their gender, socio-economic status, or other vulnerabilities, had equitable access to project benefits. This emphasis on human rights led to the identification of policies and practices that could be discriminatory or exclusionary, allowing the project to recommend changes that promoted fairness and justice.

As a result, this focus on gender and human rights within advisory and technical support not only improved the inclusivity and equity of the project's outcomes but also provided best practices for addressing these issues in policy creation and implementation. The lesson learned is that mainstreaming gender and human rights leads to more effective and equitable project results, and this approach should be integrated into future projects to ensure sustainable and socially responsible outcomes.

ANNEX XI. QUALITY ASSESSMENT OF THE REVIEW REPORT

Review Title: Terminal Review of the UNEP Project 'Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods and in-Country Technical and Advisory Support' (PIMS ID 02010) 2018-2023
Consultant: Chuanrong WANG

All UNEP Reviews are subject to a quality assessment by the UNEP Evaluation Office. This is an assessment of the quality of the review product (i.e. Main Review Report).

	UNEP Evaluation Office Comments	Final Review Report Rating
Report Quality Criteria		
Quality of the Executive Summary Purpose: acts as a stand-alone and accurate summary of the main review product, especially for senior management. To include: • concise overview of the review object • clear summary of the review objectives and scope • overall review rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria • reference to where the review ratings table can be found within the report • summary response to key strategic review questions • summary of the main findings of the exercise/synthesis of main conclusions • summary of lessons learned and recommendations.	Final report *(coverage/omissions):* The executive summary contains a concise overview of the project and all the other required elements, including the project background, the review objectives, key findings, conclusions with overall performance rating, lessons learned and recommendations. Key findings include response on the effects of COVID-19, which is one of the four strategic questions of the review. However, responses to other strategic questions are not highlighted anywhere in the report. Final report *(strengths/weaknesses):* The key findings refer to activities/ milestones instead of activities and outputs as per ToC. The review approach could have mentioned how gender and vulnerable groups and ethics in the review were addressed and how limitations to the review were mitigated. The Evaluation Office notes that the preceding projects (531.1: Global Waste Management Outlook (GWMO); 531.2: Secretariat Support to the Global Partnership on Waste Management and 534.1: Delivering Integrated Waste Solutions at the National and Local Levels) were subject to an independent Terminal Evaluation in May 2021 and this is not noted within this Review. Some follow up on the recommendations made in that TE should have informed this Review.	4
Quality of the 'Introduction' Section Purpose: introduces/situates the evaluand in its institutional context, establishes its main parameters (time, value, results, geography) and the purpose of the review itself. To include: • institutional context of the project (sub-programme, Division, Branch etc) • date of PRC approval, project duration and start/end dates • number of project phases (where appropriate) • results frameworks to which it contributes (e.g. POW Direct Outcome) • coverage of the review (regions/countries where implemented) • implementing and funding partners • total secured budget	Final report *(coverage/omissions):* Most of the required elements of the introduction (institutional arrangements, alignment with POW and MTS, purpose of the TR, previous MTR conducted, total actual project budget, use of the TR and dissemination of the TR) are addressed. However, the evaluand wasn't properly situated in the UNEP institutional structure and some elements (PRC date of approval and revisions of proDoc, project coverage and countries where the project was implemented, and funding partners) are not included. The report didn't define the target audience of the TR. Final report *(strengths/weaknesses):* Defining the institutional alignment of IETC within the UNEP's organizational structure would have been beneficial.	4

	UNEP Evaluation Office Comments	Final Review Report Rating
• whether the project has been reviewed/evaluated in the past (e.g. mid-term, external agency etc.) • concise statement of the purpose of the review and the key intended audience for the findings.		
Quality of the 'Review Methods' Section Purpose: provides reader with clear and comprehensive description of review methods, demonstrates the credibility of the findings and performance ratings. To include: • description of review data collection methods and information sources • justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face) • number and type of respondents *(see table template)* • selection criteria used to identify respondents, case studies or sites/countries visited • strategies used to increase stakeholder engagement and consultation • methods to include the voices/experiences of different and potentially excluded groups (e.g. vulnerable, gender, marginalised etc) • details of how data were verified (e.g. triangulation, review by stakeholders etc.) • methods used to analyse data (scoring, coding, thematic analysis etc) • review limitations (e.g. low/ imbalanced response rates across different groups; gaps in documentation; language barriers etc) • ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected. Is there an ethics statement? E.g. *'Throughout the review process and in the compilation of the Final Review Report efforts have been made to represent the views of both mainstream and more marginalised groups. All efforts to provide respondents with anonymity have been made.*	Final report *(coverage/omissions):* The report covers some of the expected elements of the methods section. However, the report provides no justification for the methods used, doesn't describe selection criteria for respondents and sites, and doesn't describe how the data was analysed or triangulated. The data collection tools used for the study are also not included in the report. Final report *(strengths/weaknesses):* The methods section has significant weaknesses in the application of the data collection methods. For example, a survey was conducted targeting only one out of the 30 target countries and with no description of the population and how the sample size was determined, the sampling strategy used and the response rate. The results of the survey are also not explicitly presented in the findings section. The report also doesn't include the rationale for the methods used and how the data collected using each of the methods was analysed and triangulated. Some key stakeholder groups such as donors were not interviewed for the review.	3
Quality of the 'Project' Section Purpose: describes and verifies key dimensions of the evaluand relevant to assessing its performance. To 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	Final report *(coverage/omissions):* Required sections are covered, including context, results framework, stakeholders, project implementation structure and partners, planned and actual implementation structures, changes in design during implementation, and project financing. Final report *(strengths/weaknesses):* The report presents a good analysis of the problem, its root causes, consequences and the solutions proposed by the project at design. The results framework is presented in a manner that logically links it to the PoW and MTS results. Table 2 appears to come from the ProDoc, following a revision that took in Components E and F. The source is not given and no outputs are articulated, only components and activities. The TOC for this Review	4.5

	UNEP Evaluation Office Comments	Final Review Report Rating
• *Project implementation structure and partners:* 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	appears to have benefited from the TOC presented in the Mid Term Review. The report presents a good analysis of project stakeholders including their interest, power and influence on the project. The report presents a good description of the project implementation structure (text and graphic) both at design and during implementation while providing justification for the changes in the implementation structure. Detailed project financing data is presented in tables. However, the data isn't presented by component/result area as expected. The report places more emphasis on operational level changes in project execution (mainly staffing) and less emphasis on the more significant changes in the expected results as result of significant changes in the budget (The budget at design was USD 8,229,844 and by project closure this had more than doubled to18,999,319). Description of partners is mixed with findings on the partnerships (para. 68).	
Quality of the Theory of Change Purpose: to set out the TOC at Review in diagrammatic and narrative forms to support consistent project performance; to articulate the causal pathways with drivers and assumptions and justify any reconstruction necessary to assess the project's performance. To include: • description of how the *TOC at Review*[70] was designed (who was involved etc) • confirmation/reconstruction of results in accordance with UNEP definitions • articulation of causal pathways • identification of drivers and assumptions • identification of key actors in the change process • summary of the reconstruction/results re-formulation in tabular form. *The two results hierarchies (original/formal revision and reconstructed) 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'.* This table may have initially been presented in the Inception Report and should appear somewhere in the Main Review report.	Final report *(coverage/omissions):* Articulation and narrative provided for outputs, outcomes, drivers and assumptions, and causal pathways. A table with justification for reformulation of results statements, figure of ToC at TR is also included. Final report *(strengths/weaknesses):* The Theory of Change at Terminal Review is inconsistent with the results framework. Whereas the results framework has six result areas (components / outputs), the theory of change has four with no indication of whether the other two are integrated into the four result areas. Stronger linkages of stakeholder groups identified (in the Project section) with the ToC would have been beneficial for the narrative and analysis of strengths of causal pathways. The result statements in the ToC do not include the actors. The drivers and assumptions from direct Outcome to Project Outcome to Intermediate State are all lumped together and yet these may not necessarily be the same or apply to all the links. It is therefore not clear which drivers or assumptions apply for each of the links in the results logic/ hierarchy.	3
Quality of Key Findings within the Report Presentation of evidence: nature of evidence should be clear (interview, document, survey, observation, online resources etc) and evidence should be explicitly triangulated unless noted as having a single source.	Final report *(coverage/omissions):* Concise presentation of assessment with rating in line with the guidelines. Findings presented in the report are evidence based and consistent across the document.	4

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[70] During the Inception Phase of the review process a *TOC at Review 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 review process this TOC is revised based on changes made during project intervention and becomes the *TOC at Review*.

	UNEP Evaluation Office Comments	Final Review Report Rating
<u>Consistency within the report:</u> all parts of the report should form consistent support for findings and performance ratings, which should be in line with UNEP's Criteria Ratings Matrix. <u>Findings Statements (where applicable):</u> The frame of reference for a finding should be an individual review criterion or a strategic question from the TOR. **A finding should go beyond description and uses analysis to provide insights that aid learning specific to the evaluand.** In some cases a findings statement may articulate a key element that has determined the performance rating of a criterion. Findings will frequently provide insight into 'how' and/or 'why' questions.	Final report *(strengths/weaknesses):* Assessment could have benefited from more integration of ToC, assumptions and drivers in the analysis. Pilot demonstration projects are not well presented, including review data collected during the field mission in Mongolia and survey results from Sri Lanka. The report is devoid of clear and distinct findings statements.	
Quality of 'Strategic Relevance' Section <u>Purpose:</u> to present evidence and analysis of project strategic relevance with respect to UNEP, partner and geographic policies and strategies at the time of project approval. To include: Assessment of the evaluand's relevance vis-à-vis: • Alignment to the UNEP Medium Term Strategy (MTS), Programme of Work (POW) and Strategic Priorities • Alignment to Donor/GEF/Partners Strategic Priorities • Relevance to Regional, Sub-regional and National Environmental Priorities • Complementarity with Existing Interventions: complementarity of the project at design (or during inception/mobilisation[71]), with other interventions addressing the needs of the same target groups.	Final report *(coverage/omissions):* Each sub-criteria assessed with evidence and rated and an overall rating for the criterion provided. Final report *(strengths/weaknesses):* The report presents a good analysis of the relevance of the project to UNEP's strategic priorities and the relevant UNEP MTS and PoW. The report also highlights the relevance of the project to global, regional, national priorities of the target counties, and to donor and project partner priorities. The report also demonstrates strong complementarity of the project with existing Interventions. Relevant initiatives of the project's donors could have been included under sub-category "Complementarity with existing interventions/ coherence".	5
Quality of the 'Quality of Project Design' Section <u>Purpose:</u> to present a summary of the strengths and weaknesses of the project design, on the basis that the detailed assessment was presented in the Inception Report.	Final report *(coverage/omissions):* Section presents elements of the project design, including table with ratings table of quality of project design. Rating of criterion is provided. Final report (strengths/weaknesses): Weaknesses of project design are mentioned, but their effect or risk to the project are not further assessed.	4.5
Quality of the 'Nature of the External Context' Section <u>Purpose:</u> to describe and recognise, when appropriate, key <u>external</u> features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval[72]), and how they affected performance. While additional details of the implementing context may be informative, this section should clearly record whether or not a major and unexpected disrupting	Final report *(coverage/omissions):* This section of the report describes the nature of the external context characterised by disruptions occasioned by the COVID-19 pandemic and the corresponding mitigation measures. Final report *(strengths/weaknesses):* Section does not appear to assess country context of the 30 project countries in detail.	5

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[71] A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity <u>during project implementation</u> is considered under Efficiency, see below.

[72] 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.

	UNEP Evaluation Office Comments	Final Review Report Rating
event took place during the project's life in the implementing sites.	Signing off on legal agreements is mentioned without specific details or country examples related to the political context.	
Quality of 'Effectiveness' Section **(i) Availability of Outputs:** Purpose: to present a well-reasoned, complete and evidence-based assessment of the outputs made available to the intended beneficiaries. To include: • a convincing, evidence-supported and clear presentation of the outputs made available by the project compared to its approved plans and budget • assessment of the nature and scale of outputs versus the project indicators and targets • assessment of the timeliness, quality and utility of outputs to intended beneficiaries • identification of positive or negative effects of the project on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).	Final report *(coverage/omissions):* Detailed table with project results framework and achievement of milestones and with indication of the extent to which each output target was achieved. Separate assessment of availability of outputs: A, B, C and extent to which each was achieved and one overall rating for availability of outputs provided. Final report *(strengths/weaknesses):* The report presents evidence-based analysis on delivery of outputs as compared to project targets. The report also includes an assessment of the utility of outputs to intended beneficiaries and gender considerations. However, the report doesn't comment on the quality or timeliness in delivery of the outputs.	5
ii) Achievement of Project Outcomes: Purpose: to present a well-reasoned, complete and evidence-based assessment of the uptake, adoption and/or implementation of outputs by the intended beneficiaries. This may include behaviour changes at an individual or collective level. To include: • a convincing and evidence-supported analysis of the uptake of outputs by intended beneficiaries • assessment of the nature, depth and scale of outcomes versus the project indicators and targets • discussion of the contribution, credible association and/or attribution of outcome level changes to the work of the project itself • any constraints to attributing effects to the projects' work • identification of positive or negative effects of the project on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).	Final report *(coverage/omissions):* Section contains evidence-based analysis of uptake of outputs by the intended beneficiaries, achievement of project outcome and extent to which each were achieved and an overall rating provided. Final report *(strengths/weaknesses):* Evidence on usage of project outputs is weak and would have benefited from specific examples or source of evidence based on information collected by the reviewer to establish credible association between project's efforts and the project outcome realised.	3.5
(iii) Likelihood of Impact: Purpose: to present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact, including an assessment of the extent to which drivers and assumptions necessary for change to happen, were seen to be holding. To include:	Final report *(coverage/omissions):* This section of the report presents a concise summary of the likelihood on impact with an example of introduction of Eco-tax in Mongolia included. Final report *(strengths/weaknesses):* Assessment would have benefited from consideration of assumptions and drivers identified in the reconstructed ToC, and a description of any	3.5

	UNEP Evaluation Office Comments	Final Review Report Rating
- an explanation of how causal pathways emerged and change processes can be shown - an explanation of the roles played by key actors and change agents - explicit discussion of how drivers and assumptions played out - identification of any unintended negative effects of the project, especially on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).	unintended positive or negative effects and their causal linkages to the intended impact.	
Quality of 'Financial Management' Section <u>Purpose</u>: to present an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table (may be annexed). 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 *(coverage/omissions):* Each of the three sub-criteria are assessed and rated and an overall rating provided. The financial management assessment template is included. The assessment of completeness of financial information includes tables of expenditure by outcome/ output, expenditure by year, expenditure breakdown by category. Communication between finance and project management staff sub-criterion assessment is based on email records and administrative reports including interviews with implementation partners. Final report *(strengths/weaknesses):* Adherence to UNEP's financial policies and procedures would have benefited from an assessment of timeliness of approvals, submission of reports and revisions.	4
Quality of 'Efficiency' Section <u>Purpose</u>: to present an integrated analysis of all dimensions evaluated under efficiency (i.e. the primary categories of cost-effectiveness and timeliness). To include: - 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. - implications of any delays and no cost extensions - the extent to which the management of the project minimised UNEP's environmental footprint.	Final report *(coverage/omissions):* Section contains assessment by project components A, B, C, D, E and F with consideration of timeliness of delivery of outputs as compared to planned targets. Final report *(strengths/weaknesses):* Initial planned targets were in some cases superseded. Planned and actual expenditure of each component has been examined. However, the report doesn't provide explanation for the significant variance in project expenditure at component level. Project component D and E had no expenditure despite having allocations at project design. It is also not clear how these were delivered at zero cost. The report doesn't include cost and time saving measures beyond those occasioned by the COVID-19 pandemic i.e. reduced travel and in-person meetings.	3.5
Quality of 'Monitoring and Reporting' Section <u>Purpose</u>: to present well-reasoned, complete and evidence-based assessment of the evaluand's monitoring and reporting. Consider how well the report addresses the following: quality of the monitoring design and budgeting *(including SMART results with measurable indicators, resources for MTE/R etc.)*	Final report *(coverage/omissions):* The three sub-categories were assessed and rated and an overall rating provided. The quality of the monitoring plan is assessed and aligned with PIMS 6-monthly reporting. Effects of COVID-19 pandemic on monitoring activities are assessed. Final report *(strengths/weaknesses):*	4

	UNEP Evaluation Office Comments	Final Review Report Rating
• quality of monitoring of project implementation *(including use of monitoring data for adaptive management)* • quality of project reporting *(e.g. PIMS and donor reports)*	The role and monitoring capacity of UNEP-IETC is reviewed. Monitoring in PIMS, and reporting to donors and the International Advisory Board is addressed. The evidence presented appears to be based only on a document review with no reference to interviews conducted. The report conflates indicators with targets. For example in paragraph 202 there is mention of "target indicators" while paragraph 205 mentions "….. timelines for achieving and monitoring the indicators." Indicators measure change (positive or negative) and therefore can't be "achieved". Only targets can be achieved.	
Quality of 'Sustainability' Section <u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under sustainability (i.e. the endurance of benefits achieved at outcome level). Consider how well the report addresses the following: • socio-political sustainability • financial sustainability • institutional sustainability	Final report *(coverage/omissions):* Each of the three sub-categories are assessed and rated with an overall rating for sustainability. Final report *(strengths/weaknesses):* The Review builds on the assessment of the achievement of outcomes with the addition of little new evidence, including ownership of reports, etc. The sub-section on socio political suitability focuses on analysis of whether there were national or regional conflicts or political upheavals (paragraph 218). The expectation, however, was for the analysis of social or political factors (such as level of ownership, interest and commitment among government and other stakeholders) that would support deepening of project outcomes. The section on financial sustainability focusses on the availability of funds during project implementation and the new project being developed by UNEP-IETC without addressing financial sustainability at national level and "looking into the future" and making a reasoned judgment call on financial sustainability of project outcomes.	4
Quality of Factors Affecting Performance Section <u>Purpose:</u> These factors are not always discussed in stand-alone sections and may be integrated in the other performance criteria as appropriate. However, if not addressed substantively in this section, a cross reference must be given to where the topic is addressed and that entry must be sufficient to justify the performance rating for these factors. Consider how well the review report, either in this section or in cross-referenced sections, covers the following cross-cutting themes: • preparation and readiness • quality of project management and supervision[73] • stakeholder participation and co-operation	Final report *(coverage/omissions):* Each factor is concisely assessed and ratings are provided with an overall rating for factors. Final report *(strengths/weaknesses):* Evidence is provided based on both the document review and interviews.	4.5

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[73] 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. This includes providing the answers to the questions on Core Indicator Targets, stakeholder engagement, gender responsiveness, safeguards and knowledge management, required for the GEF portal.

	UNEP Evaluation Office Comments	Final Review Report Rating
• responsiveness to human rights and gender equality • environmental and social safeguards • country ownership and driven-ness • communication and public awareness		
Quality of the Conclusions Section **(i) Conclusions Narrative:** <u>Purpose:</u> to present summative statements reflecting on prominent aspects of the <u>performance of the evaluand as a whole</u>, they should be derived from the synthesized analysis of evidence gathered during the review process. To include: • compelling narrative providing an integrated summary of the strengths and weakness in overall performance (achievements and limitations) of the project • clear and succinct response to the key strategic questions • human rights and gender dimensions of the intervention should be discussed explicitly (e.g. how these dimensions were considered, addressed or impacted on)	Final report *(coverage/omissions):* This section contains conclusions, reference to the TOC, results framework, availability of project outputs A, B, C and the direct and project outcomes and impact and key findings on most criteria and factors. A concise summary assessment of project findings and ratings is included in a summary table. Final report *(strengths/weaknesses):* The conclusions section is a repetition of the findings, albeit summarised, and not a synthesis of the prominent aspects of the performance of the evaluand as expected. Responses to the four strategic questions are not directly indicated, however, COVID-19 effects are addressed.	3.5
ii) Utility of the Lessons: <u>Purpose:</u> to present both positive and negative lessons that have potential for wider application and use (replication and generalization) Consider how well the lessons achieve the following: • are rooted in real project experiences (i.e. derived from explicit review findings or from problems encountered and mistakes made that should be avoided in the future) • briefly describe the context from which they are derived and those contexts in which they may be useful • do not duplicate recommendations	Final report (coverage/omissions): Three lessons learned are presented with their contexts and drawn from project implementation findings. Final report *(strengths/weaknesses):* Lesson learned on mainstreaming gender and human rights for vulnerable groups are included. Lesson on the value of strategic partnership is generalized and its potential for application would have benefited from more specificity of type, timing and role of partnership. Whereas the operational level lessons learnt presented are important and at the core of good project management practice, an opportunity to document thematic (waste management) lessons learnt was missed	4
(iii) Utility and Actionability of the Recommendations: <u>Purpose:</u> to present 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. Consider how well the lessons achieve the following: • are feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when • include at least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions • represent a measurable performance target in order that the UNEP Unit/Branch can	Final report *(coverage/omissions):* Six recommendations are presented in line with guidelines and format with responsibility assigned to UNEP-IETC. Final report *(strengths/weaknesses):* Timeframe is not well specified as a measurable target. Recommendations, except for recommendation 4 (advanced funding strategy) are applicable to the design and implementation of new projects by UNEP-IETC, rather than follow-up to the implemented project.	4.5

	UNEP Evaluation Office Comments	Final Review Report Rating
monitor and assess compliance with the recommendations. NOTES: **(i)** In cases where the recommendation is addressed to a third party, compliance can only be monitored and assessed where a contractual/legal agreement remains in place. Without such an agreement, the recommendation should be formulated to say that UNEP project staff should pass on the recommendation to the relevant third party in an effective or substantive manner. The effective transmission by UNEP of the recommendation will then be monitored for compliance. **(ii)** Where a new project phase is already under discussion or in preparation with the same third party, a recommendation can be made to address the issue in the next phase.		
Quality of Report Structure and Presentation **(i) Structure and completeness of the report:** To what extent does the report follow the UNEP Evaluation Office structure and formatting guidelines? Are all requested Annexes included and complete?	Final report *(coverage/omissions):* This is a concise and well-structured report with performance ratings assigned to criteria and sub-categories according to UNEP guidelines. All required annexes are included together with an additional annex with implementation plan of recommendations which includes what will be done, expected completion date and responsible officer, unit/ division/ agency. Final report *(strengths/weaknesses):* The report follows the evaluation office structure and covers all the required sections.	5
(ii) 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?	Final report *(coverage/omissions):* The report is written in clear English language and well formatted. Final report *(strengths/weaknesses):* Use of specific tables and figures per guidelines as required. A well written report with concise assessments and written in an appropriate tone and level of quality. Mix of present and past tense in some sections for example in paragraphs 33, 35, 61, 76, 84, 235.	4.5
OVERALL REPORT QUALITY RATING	**Moderately Satisfactory**	**4.1**

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. <u>The overall quality of the review report is calculated by taking the mean score of all rated quality criteria.</u>