

Independent Terminal Evaluation

Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in developing and transition countries

UNIDO Project No.: 100050



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO INDEPENDENT EVALUATION DIVISION

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Abbreviations and acronyms

Acronym	Meaning
C2C	'Cradle to Cradle'
CEC	Circular Economy
CHF	Swiss franc
CII-GBC	Confederation of Indian Industry - Green Business Centre
CSO	Civil Society Organization
CP	Cleaner Production
EU	European Union
EUR	Euro
GEF	Global Environment Facility
GTZ	German Agency for Technical Cooperation
IFC	International Finance Corporation
KMS	Knowledge Management System
NCPC	National Cleaner Production Centre
RECP	Resource Efficient and Cleaner Production
RECPnet	RECP network
SECO	Swiss State Secretariat for Economic Affairs
SME	Small and Medium Enterprise
TOC	Theory of change
UN Environment	United Nations Environment (formerly UNEP)
UNEP	United Nations Environment Program
UNFCCC	United Nations Climate Convention of Climate Change
UNIDO	United Nations Industrial Development Organization
WBSCD	World Business for Sustainable Development
WS	Work Stream

Glossary of evaluation terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations.
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results based management) principles.
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs.
Outputs	The products, capital goods and services which result from an intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

EXECUTIVE SUMMARY

This independent evaluation looks into two intertwined interventions: 1) The Global UNIDO-UN Environment Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries, designed by UNIDO in 2009 with an estimated budget of Euro 69.4 million, referred to in this report as the Programme; and 2) the UNIDO Global Resource Efficient and Cleaner Production Project, developed under the Programme in 2011 and funded by the Swiss State Secretariat for Economic Affairs (SECO) with a grant of CHF 16.5 million (USD 16 million), referred to in this report as the Project.

The evaluation provides a detailed assessment of the Project's performance (in terms of the relevance, effectiveness, efficiency, sustainability and its contribution to long-term impact on resource efficient and cleaner production), while conducts an overall assessment of the Programme. The second purpose of the evaluation is to draw lessons and recommendations for UNIDO that could help improve identification, design and implementation of the follow up programme and other similar projects and programmes.

The UNIDO-UN Environment (previously United Nations Environment Programme - UNEP) Global RECP Programme for Developing and Transition Countries was designed in 2009 and built upon a 15-year collaboration on cleaner production between these two agencies. The long-term objective is to improve the resource productivity and the environmental performance of industrial businesses, and to contribute to sustainable industrial development and sustainable production and consumption in developing and transition countries.

The Project was the first to be developed and funded under the framework of the Programme in 2011. The Project was also meant to upscale results of a 15-year work between UNIDO, UN Environment and more than three dozen National Cleaner Production Centres (NCPCs). It was financed by SECO with a grant of CHF 16.5 million (approximately USD 16 million)¹ to address eight of 24 workstreams (WS) identified in the Programme document, with a duration of four (4) years (2012-2016).

Accomplishments and Limitations of the Project

The Project was found to be relevant to the countries' priorities and enterprises it served. The Project provided tools to support country policies to reduce pollution and improve resource efficiency, and it provided enterprises means to meet emerging regulations, increase their market share and improve competitiveness in the context of the growing number of trade agreements.

Overall efficiency in the use of time and resources was found to be moderately unsatisfactory, because of the delays and slow disbursement in several of the workstreams. The project had a slow start that ultimately resulted in two extensions for a total of two

¹ CHF 14.6 million (Euro 13.8 million) for implementation and CHF 1.9 million (Euro 1.8 million) for Programme support costs.

years. It is noted that efficiency has improved significantly since the mid-term in October 2015. While the mid-term evaluation found many complaints of administrative and management delays from multiple stakeholders, this evaluation found few such complaints. It is also noted that favourable exchange rates have resulted in additional funds for project operations, which was a contributing factor in the project extensions.

The project effectiveness was satisfactory. The Project significantly pushed forward the processes that UNIDO and UN Environment had started on 1994. By the time the project started in 2012, the UNIDO-UN Environment collaboration had made important contributions towards the identification, development and testing of tools and methods for RECP to the diverse conditions in developing and emerging economies. The Project pertaining to this evaluation built on these previous accomplishments by helping to systematize and adapt 19 RECP-related methods and toolkits to country conditions and by developing 73 case studies and other knowledge products that are well suited to small and medium industries in developing countries. The project also helped to continue strengthening at least fifty-eight (58) National Cleaner Production Centres (NCPC) in fifty-five (55) developing countries that participate in the RECP Network (RECPnet). While the extent of capacities differed from centre to centre, those that are regular members of the network are often recognised as leading authorities on the topic in their respective countries.

From 2012 to 2017, the Project helped train at least 1,754 persons on RECP and assisted 527 enterprises to incorporate RECP methods and tools into their business operations. In the process, the project generated considerable environmental and economic benefits to the participating enterprises. The evaluation verified that benefits were accrued through project reports and field visits. Nevertheless, absence of systematic results-monitoring data made it impossible to determine and quantify the specific benefits generated by the project².

Two specific objectives of the project were the promotion of business and financial models supportive to RECP. The project accomplishments in these regards have been modest. This is due in part to a relatively small amount of funds allocated to these areas. Also, these are two areas in which known options are limited and more work is required to identify and standardise the approaches.

The overall sustainability of the project results was found to be moderately likely. Sustainability across the various workstreams differed. The capacities strengthened by the NCPCs, the changes adopted by the participating enterprises and the environmental and economic benefits generated by the adoption of the new technologies are found to be sustainable. This is attributed to the fact that in most instances, changes consist of low hanging fruits that take advantage of eco-efficiencies or those that can be implemented at relatively low costs or with quick capital returns. Participating firms also believe that compliance with environmental standards has reduced transaction costs and improved their competitiveness as environmental regulations get more stringent. Sustainability of two

² One of UNIDO project managers has indicated that the monitoring of the implementation of options is the responsibility of the enterprise. NCPCs have reported that enterprises are not interested in keeping track of natural resource savings. Yet this information is critical to assess the extent of impact and effectiveness of the options proposed by the project.

workstreams (WS) of the Project, WS 1 RECPnet and WS 2 Knowledge Management System were found to be unlikely given the low ownership by members and high dependency on UNIDO funds for their management and operation. The Project contributions to the sustainable industries focused mostly on the transfer of RECP technology, RECP knowledge generation in developing countries and awareness raising. Yet only in few occasions did the Project catalyse changes that went beyond the scale of the enterprise. Despite its significant accomplishments the Project has mostly remained a collection of RECP-related workstreams that resulted in multiple isolated RECP success stories that are not mutually supportive. Table 14 presents the project performance ratings by the evaluation team.

Three key factors during project implementation that affected the extent that the project contributed to long term impact:

- Loss of opportunities for synergies and learning due to deficient coordination across workstreams in the project and across projects in the broader programme.
- Insularity in project management, low institutional incentives for cross project learning and insufficient valance between technical and non-technical managerial skills.
- Deficient results-based management and monitoring.

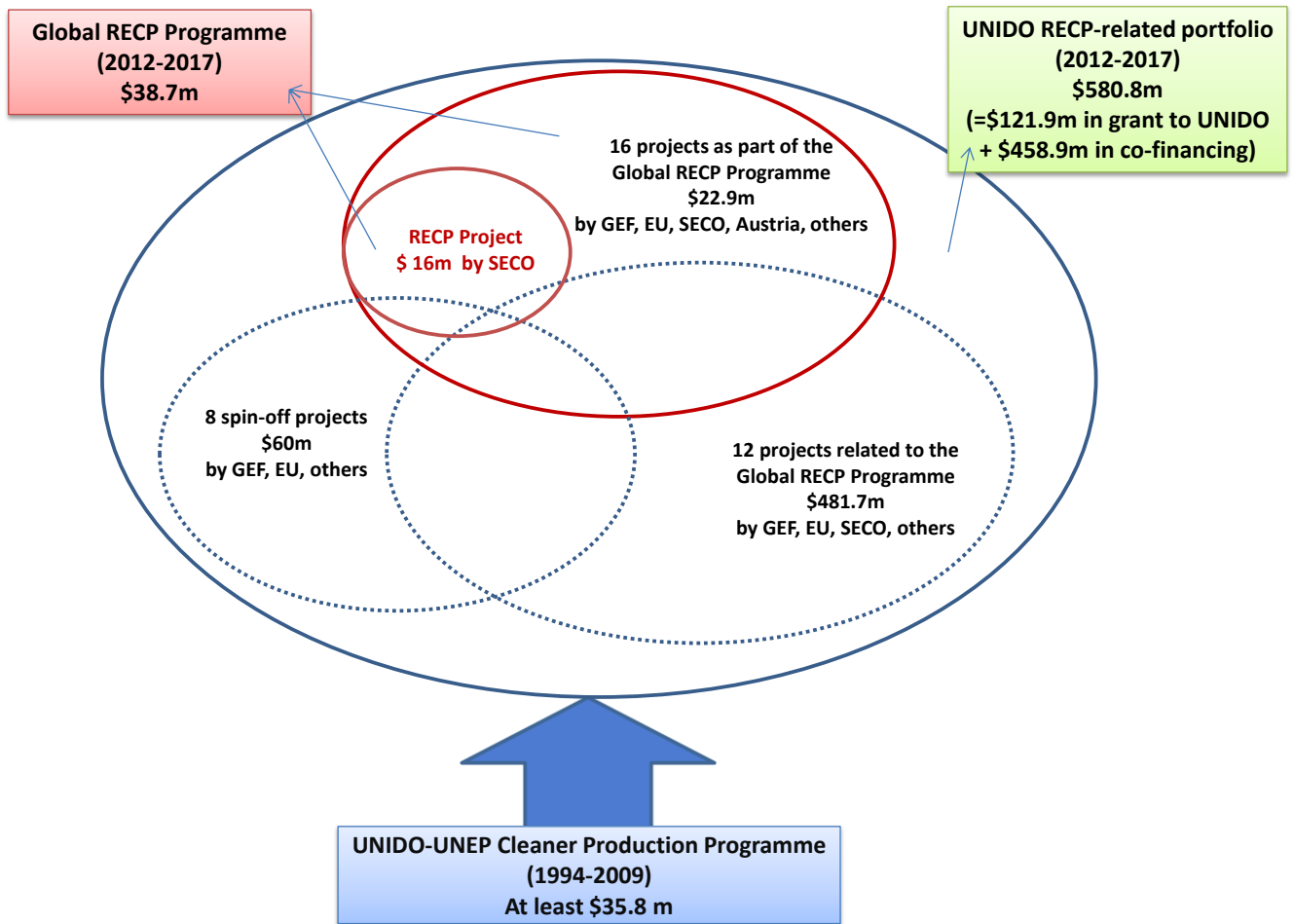
Reach and Limitations of the RECP Programme

While there seems to be an impression by key stakeholders that the Programme funding fell short of expectation, there was in fact a significant expansion of projects that included RECP activities within UNIDO between 2012 and 2017. During these five years, UNIDO approved 16 additional projects (USD 22.9 million)³ under the context of the Programme and 8 different “spin off” projects (USD 60 million⁴). By 2017 there were also twelve (12) other projects (USD 481.7 million) with RECP components or links across UNIDO that were under implementation or in advanced stages of preparation. Also by 2017, a total of USD 2.4 million of the SECO Project grant had been channelled to eight (8) other RECP related projects. By October 2017 the total value of UNIDO projects related to RECP exceeded USD 580.8 million. This is sixteen (16) times more than the USD 35.8 million which is the total amount of the projects addressing UNIDO-UNEP Cleaner Production Programme between 1994 and 2009 (see Figure 1 below). This growth of funding underlines the critical importance of RECP for UNIDO as an organization and of the need to coordinate RECP related activities and learning across projects and departments.

³ This includes the SECO RECP Project valued at USD 16 million and 16 other projects valued at a total of USD 22.8 million.

⁴ This amount includes also co-financing funds contributed by other partners (which are not transferred through UNIDO’s bank account).

Figure 1. UNIDO RECP-related Portfolio 2012-2017



Source: UNIDO Open database, Project Managers, UNIDO 2008 Independent Evaluation - Cleaner Production Programme, UNIDO 2015 Independent Mid-Term Evaluation – Global RECP Programme.

Despite extensive reach of the Programme and RECP related activities across UNIDO there were several important Programme design shortcomings, that were also internalized by the Project and limited the extent to which the Project contributed to long-term impact. These are:

- A lack of integration of the different components within mutually supportive ways.
- An insufficient attention to policy and other key conditions that are likely to enable broader adoption of RECP.
- An insufficient attention to the mechanisms for broader adoption, such as mainstreaming, replication and scaling-up.

Institutional Factors Affecting Project and Programme Performance.

The lack of integration of Project and Programme components during design could have been overcome during implementation had UNIDO put in place an effective coordinating

mechanism for the Programme. But none of such mechanisms were established and UNIDO's support to RECP remained a series of isolated interventions. This has limited the Project and Programme contributions to other UNIDO operations and hampered institutional learning. The coordination gap has been partly filled by the NCPCs who often seek to integrate the support by different UNIDO projects at the country level.

Broader institutional factors also contribute to the weak coordination and integration of UNIDO's RECP related operations. Key stakeholders have indicated that most project operations in UNIDO are delegated to project managers with little systematic oversight, a factor which has further contributed to a culture of insularity. Weak Monitoring and Evaluation (M&E) and risk tracking and management also constrains learning and adaptive management during project implementation.

The preference for technical skills during the selection of project managers, without sufficient consideration of other skills needed to manage complex projects, is another factor that has contributed to operations that tend to gravitate towards technical arena while not giving sufficient attention to policy and other contextual issues.

Lessons Learned

- Programmes/projects pertaining to complex processes need to adopt integrated approaches that simultaneously address the conditions necessary to reach the desired transformations. To do this, the programmes/projects must develop explicit theories of change that can guide the design and implementation of subsidiary projects.
- Efforts to bring about transformations at scale require close attention to policy and regulatory instruments and financing in addition to contributions to innovative technology, knowledge generation and awareness-raising. While UNIDO's projects might not be well positioned to engage countries in a broad industrial and economic policy dialogue, UNIDO projects and the NCPCs are well suited to contribute in the development of sector policy instruments such as standards, regulations and other mechanisms that provide incentive for RECP adoption.
- As southern organizations gain experience in the application of innovations to specific contexts of the developing world, south-south cooperation becomes a more effective capacity building strategy.

Recommendations

1. Recommendations for the Current Project

- a. **UNIDO** should put in place a coherent and systematic process to provide oversight and foster integration among projects and activities in the RECP Programme.
- b. **UNIDO and SECO** should require the RECP Project to immediately put in place a results-based management and monitoring system for the Project and for the Programme.
- c. **UNIDO, UN Environment and the NCPCs** belonging to the RECPnet should come to an agreement within the next six (6) months on a realignment of their roles and responsibilities in a way that develop network ownership by the members and ensure sustainability.
- d. **UNIDO** should develop a sustainability strategy for the RECP KMS within the next six (6) months.

2. Recommendations for Future Operations and to Address Broader Institutional Issues

- a. **UNIDO and SECO** should scale up RECP to the level of eco-industrial parks seeking to integrate support at the enterprise and park scales and address critical policy issues.
- b. **UNIDO and SECO** should require programmes that seek to address complex processes to develop explicit theories of change that can guide the design and implementation of integrated projects.
- c. **UNIDO** should develop and implement a strategy to strengthen its capacities in policy, regulatory and institutional reforms and give more prominence to these topics in its projects and in NCPC capacity building. It should also draw on mature developing country NCPCs as the primary source of technical assistance for this topic.
- d. **UNIDO** should ensure that its institutional supervision systems are robust, and that they guarantee the proper support, oversight, coordination, risk-tracking and integration of global programme and individual projects.
- e. **UNIDO** should put in place quality control systems to ensure that all new programmes and projects include a practical and sufficiently budgeted monitoring plan during the design phase, and that the plan is executed during implementation.
- f. **UNIDO and SECO** should include an impact evaluation of the current project in the follow up project that is now being developed.

I. EVALUATION OBJECTIVES, QUESTIONS AND METHODS

A. Objectives and Scope of the Evaluation

The objective of this independent evaluation is to assess the design, performance and results of UNIDO's Global Resource Efficient and Cleaner Production (RECP) Project (2012-2018), referred to from here onwards as 'the Project' in this report. This Project was developed under the umbrella of the UNIDO-UN Environment Global Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries (2009) (referred to in this report as 'the Programme').

The evaluation assessed the Project's performance based on the criteria of relevance, effectiveness, efficiency, sustainability and progress to impact. The evaluation provides an analysis of the delivery and completion of the activities, outputs and outcomes of the project. It also assesses the project design, the level of national ownership, and the interactions with other related UNIDO projects. While this is an evaluation of the Project, the analysis has also included an assessment of the design of the Programme and an examination of the way that the Project interacts with other projects developed under the Programme. In accordance with the evaluation terms of reference provided by UNIDO, this evaluation assesses the Project's impacts by examining the extent and forms by which the Project contributed to the conditions necessary for the broad adoption of resource-efficient and clean production in developing and transitional economies.

The second purpose of the evaluation is to draw on lessons learned and to provide recommendations for the future phase of the Project, and to help UNIDO improve upon the identification, preparation and implementation of the Global RECP Programme and other similar programmes.

B. Evaluation Questions

The evaluation addresses the following key questions:

- 1. What have been the key results of the Project (i.e. outputs, outcome and impact)?** The focus is on the extent to which the expected results have been achieved, or are likely to be achieved.
- 2. What is the sustainability of the Project's accomplishments?** This analysis focuses on the sustainability assessment of the RECP Network (RECPnet), the National Cleaner Production Centres (NCPCs) and the adoption of RECP recommendations by enterprises. Attention is given to the financial, technological, institutional, regulatory and socio-political risks to sustainability.
- 3. To what extent have the Project's outputs and outcomes contributed to the conditions likely to bring about a transformation to resource efficiency and cleaner production in developing and transitional economies?** This includes an assessment of: i) the extent to which the Project helped put in place the conditions necessary for transformation, and ii) the identification and assessment of the transformational pathways pursued by the project.
- 4. What lessons can be drawn from the Project?** This analysis entails an assessment of the factors that contributed to or hampered the achievement of project results and to its contributions to the necessary conditions for transformation. This analysis also identifies

lessons and recommendations that can be rolled into the next phase of the Project and the broader RECP Programme.

C. Evaluation Methods

The terminal evaluation was conducted in accordance with the UNIDO Evaluation Policy⁵ and the UNIDO Guidelines for the Technical Cooperation Programme and The Project Cycle⁶. The evaluation was carried out using a participatory approach seeking to inform and consult parties at the global, country and local levels. The evaluation team adopted a theory of change approach to assess the causal links between Project activities, outcomes and outputs, and to assess the extent to which the Project contributed to the conditions necessary to achieve the broad adoption of RECP. The theory of change was elaborated as part of the inception report and was discussed and verified with the UNIDO programme management team and other staff at its headquarters in Vienna, Austria.

A combination of methods was used to deliver evidence-based qualitative and quantitative information, from diverse sources including: desk studies and literature review, individual interviews, focus group meetings, surveys and direct observation. In preparing for the interviews and country visits, the evaluation team carried out a desk review of Programme and Project documents, the midterm evaluation of the project, annual progress reports for the Project, as well as publications and other related reports and documents found in the Project websites and the websites of the National Cleaner Production Centres (NCPCs). Country visits were selected by the UNIDO Independent Evaluation Division in consultation with the programme managers and the evaluation team remained in close contact with the UNIDO Independent Evaluation Division during the selection of persons to be interviewed and in its general planning for the country visits.

This evaluation was carried out from June to November 2017. The evaluation inception meeting took place on June 19, 2017 at UNIDO's headquarters where the evaluation team presented and discussed the Programme's theory of change and the evaluation methods and key steps with the Programme management staff and managers of UNIDO Department of Environment and relevant UNIDO staff at its headquarters. This was done with the remote participation of a representative of the Swiss State Secretariat for Economic Affairs (SECO). Interviews with members of the RECP Network (RECPnet) were performed during the Global RECPnet Meeting held in Helsinki, Finland in June 2017⁷. Interviews with the concerned UNIDO staff in Vienna also took place in June 2017. Country visits to Colombia, India, Peru, and South Africa were conducted in June, July and August 2017. The evaluation team interviewed a total of 155 persons including executives, technicians and workers from enterprises, government officials, representatives from business organizations and Civil Society Organizations and members of NCPCs⁸.

The evaluation faced several limitations in terms of access to information. The team was only able to visit a limited number of countries – four (4) in total –when compared to the

⁵ UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1)

⁶ UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and The Project Cycle (DGAI.17/Rev.1, 24 August 2006)

⁷ RECPnet is a network formed by the NCPCs that have participated in the Programme. These include mostly centres from developing countries as well as some centres from developed countries.

⁸ Stakeholders interviewed included Global 31; India 68; South Africa 24; Colombia 16; Peru 16

large number of countries (60) and centres (63) involved in the RECPnet and to those NCPCs directly supported by the project (20). The evaluation team drew on the annual project reports and information that was provided in databases and in a timely fashion, but the evaluation team did not have the sufficient time or resources to systematize other information on project inputs and outputs. While the project managers kept repositories of contracts and activity reports from the NCPCs, the information that linked inputs to outputs and outcomes was not recorded across all workstreams. Data and information on results related to resource efficiency and cleaner production outcomes at the enterprise level were also scarce and anecdotal. These factors greatly limited the extent to which the evaluation could determine the specific levels of adoption of the Project's recommendations by the participating enterprises, and the extent to which the Project had contributed to resource efficiency and pollution reduction. Incomplete reporting pertaining to activities financed by amendments to the grant also prevented the assessment of outputs and outcomes of some of the expenditures of the project.⁹ The evaluation team presented the preliminary findings and conclusion and received feedback from stakeholders (including a representative of SECO) at UNIDO's headquarters on September 12, 2017.

D. Evaluation Report

This evaluation report is divided in five chapters. Chapter I presents the objectives, scope and methods used in the evaluation. Chapter II presents the UNIDO-UN Environment RECP Programme under which the Project pertaining to this evaluation was designed. This chapter also includes a brief history of UNIDO's previous RECP related support, the Programme's theory of change and the extent of UNIDO RECP-related portfolio and the assessment of the Programme's design and logical framework. Chapter III pertains the assessment of the SECO funded RECP Project. This part of the evaluation includes all the standard criteria of performance related to the Project's design and implementation, including project relevance, effectiveness, efficiency, sustainability, contributions to impact and broader transformation, gender, M&E and project management. Chapter IV focuses on the factors affecting Project and Programme performance. This includes an assessment of how the Programme's shortcomings carried over to the design of the Project. It also includes an assessment of how broader institutional factors within UNIDO have affected Project and Programme implementation. This chapter also includes an assessment of the role and importance of the National Cleaner Production Centres (NCPCs) for UNIDO's operations. Chapter V pertains to lessons learned and chapter VI includes the conclusions and recommendations. Conclusions are presented in the form a "story line" that succinctly brings together the key findings of the evaluation. Recommendations are distinguished between those that can be acted upon during the remainder of the Project, those that pertain future projects and programmes, and those that address broader UNIDO institutional factors.

⁹ The last amendment to the original grant dated on July 8, 2015 indicates that CHF 2.1 million were allocated to the Climate Technology Centre and Network (355 000), Pilot Application of Cradle to Cradle Production Innovation (160 000), Pilot National Cleaner Production Programme in Myanmar (500 000), Co-funding for the GEF Eco-Industrial Park project in Vietnam (885 000) and Co-funding for the Green Industry Platform (200 000).

II. THE UNIDO-UN ENVIRONMENT GLOBAL RECP PROGRAMME

A. Evolving Perspectives in Resource Efficient and Cleaner Production

According to Luken *et al.* (2016), the worldwide promotion of cleaner production by UNIDO in cooperation with UN Environment was initiated in the 1990s. During a twenty (20) year period, a comprehensive toolbox on RECP was continuously developed by UNIDO and its partners. This toolbox was aimed at providing services on awareness and information, capacity building, technical assistance and assessments for cleaner production. Since the initial development, new components to this toolbox have been added on low-carbon technologies, business modelling, innovation and financing. The scope of the approach was rebranded to “Resource Efficient and Cleaner Production (RECP)” in 2009 by giving more attention to resource efficiency and by including the improved protection of the health and well-being of employees, consumers and society, thus embracing the third element of sustainability (the people or social considerations).

Meanwhile, related, supportive and complementary concepts and programmes to RECP were developed both inside and outside of UNIDO. Inside UNIDO, work was developed in the area of Industrial Energy Efficiency (IEE), which was directly related to and considered a part of the RECP concept. Additionally, there are direct relations between the work of the UNIDO Global Clean Tech Programme, which focuses on climate change mitigation and entrepreneurship development, and that of both IEE and RECP.

Outside of UNIDO, the concept of Eco-innovation was formed and advocated by the World Business for Sustainable Development (WBSCD) during the same period as the development of the RECP concept. UNEP (now UN ENVIRONMENT) developed similar approaches such as Eco-design, Sustainable Product Innovation, and Eco-innovation, all of which overlap with RECP to a certain degree. However, these approaches are more product- and business-oriented. Complementary to this, yet outside of the direct company focus, are important demand-side approaches such as sustainable consumption and sustainable lifestyles and integral approaches such as life-cycle assessment of products, services and processes. Both UN Environment and the European Union (EU) are gathering several of these concepts under the umbrella of Sustainable Consumption and Production (SCP).

More recently, the current focus of the Global RECP Programme on Eco-Industrial Parks (EIPs) connects to network approaches such as industrial symbiosis (whereby by-products of one industry are inputs to another industry), which can be seen as a subset of industrial ecology. There has also been an increasing prominence of the concept and approach of the Circular Economy (CE)¹⁰, which is trending globally and is based on and related to similar concepts such as ‘Cradle to Cradle’ (C2C) and the ‘Blue Economy’. These approaches are getting a firmer position in global environmental policy, industrial strategies, and the scientific and technical community. Although related, some concepts within CE, such as C2C, do not automatically require resource efficiency and can be seen as systemically different from RECP. Another subset of initiatives in which UNIDO is also involved are the mostly Asia-

¹⁰ Circular Economy is an approach that seeks to extract the maximum value from resources seeking to recover products and materials at the end of the service life of products < <http://www.wrap.org.uk/about-us/about/wrap-and-circular-economy>>

led initiatives on Green Industry and the Green Economy. Several of the programmes under these topics are very similar to RECP as originally conceptualised.

B. Programme Background

In 1993, UNIDO and UNEP simultaneously developed cleaner production projects in India and China respectively. These projects combined in-plant demonstrations with user manual development and policy analysis. Cleaner production was defined as “the continuous application of an integrated preventive strategy for processes, products and services to increase efficiency and reduce risks to humans and to the environment.” UNIDO focused on the processes of manufacturing companies and their reduction in the use of energy, water and raw materials, as well as reductions in wastes and pollutants (effluents and emissions) being generated at the source. This was seen as a win-win solution, owing to the fact that operational costs can also be reduced while pursuing this approach (seen as a planet and profit approach). These experiences led to the idea of developing country mechanisms to promote and provide services for cleaner production (CP). In 1994, UNIDO and UNEP agreed to collaborate to establish and support National Cleaner Production Centres (NCPCs) in developing countries and economies in transition. They commenced the support in five (5) countries and, by 2007, UNIDO and UNEP were supporting thirty-seven (37) such centres with the help of several donors.

In 2008, UNIDO Evaluation Group conducted an independent evaluation of UNIDO-UNEP Cleaner Production Programme, which was co-funded by the Austrian Ministry of International and European Affairs and SECO. The evaluation reached out to a wide variety of stakeholders that included donors, UNIDO and UNEP staff, and the NCPCs. The evaluation found that “there are pockets of excellent results, but also poorer quality work, and the programme has the potential to effectively capture and disseminate best practices through a strong partnership with the emerging network of CP support institutions”.

That evaluation reported that the programmatic approach conceived during the early years turned into a collection of individually managed CP projects over time, with little coordination among the agencies (UNIDO, 2009). Yet the evaluation pointed out the opportunity for UNIDO and UNEP to assume complementary and synergistic roles. UNIDO’s role had been more prominent in terms of the resource allocation to and management of the centres, while UNEP was seen as having provided specific strategic inputs, often through components of regional or global projects. The evaluation also indicated the opportunity to include resource efficiency in the overall approach. In early 2009, and with strong top management support and the engagement of the NCPCs, the two agencies developed the “Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries”. The Programme’s estimated budget was Euro 69.4 million, with 5-year implementation. SECO was the first donor who contributed Euro 15.6 million (CHF 16.5 million), including support costs, to the Programme in November 2011. UNIDO and UNEP were supposed to mobilize the rest of the fund during the Programme implementation.

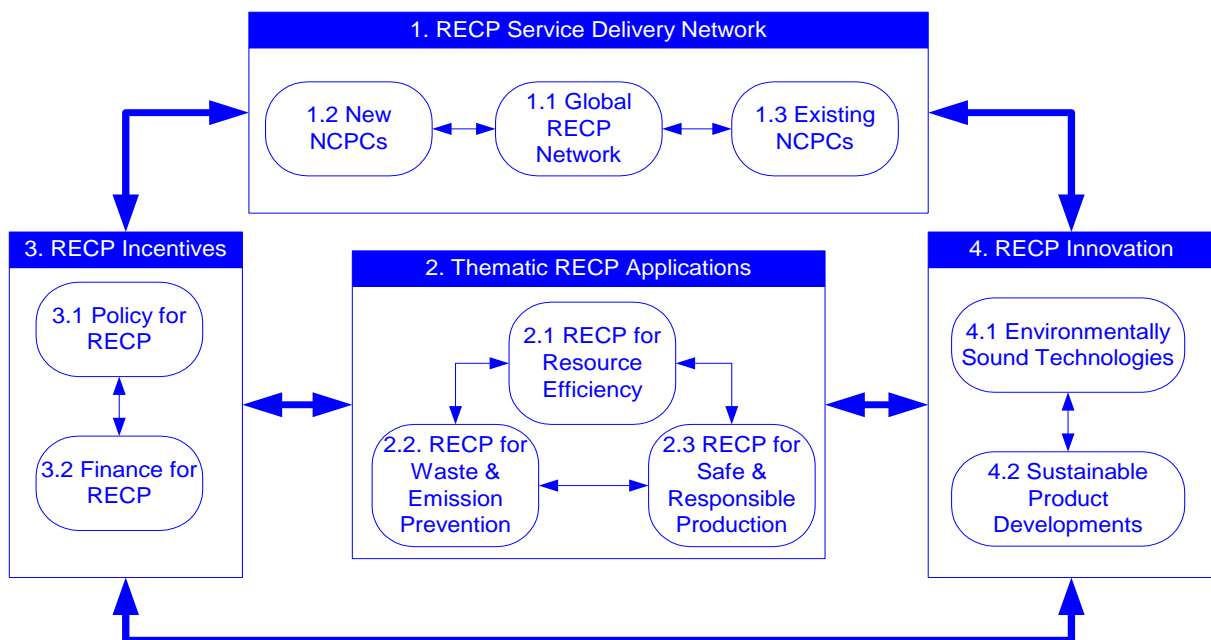
C. Programme Theory of Change

The long-term objective of the Global RECP Programme is to improve the resource productivity and the environmental performance of businesses and other organizations, as well as to contribute to sustainable industrial development and sustainable production and consumption in developing and transition countries.

The Programme seeks to provide options to overcome the problem of unsustainable growth in developing and transitional economies, which “is rooted in high pollution and waste intensity of businesses and other organizations and their inefficient use of natural resources (including energy, water and materials)” (UNIDO/UNEP, 2009). This problem results in environmental degradation, social costs and economic losses due to lower productivity, a reduced competitiveness of industries, constrained market access, and unattended consumer needs for environmentally sound goods and services (UNIDO/UNEP, 2009).

The theory of change (TOC) is a heuristic approach to help clarify the links between the programme/project activities and long-term objectives. As few projects or programmes under implementation have developed explicit TOCs¹¹. Critical to the development of a TOC is the identification of the conditions likely to bring about the behavioural changes required to achieve the long-term goal of the programme/project (Chen, 1990; Mayne, 2008). Given the complex nature of the interactions of human behaviour and the environment (the social-ecological system), and the unpredictability of outcomes of these interactions, it is also critical to identify and test key assumptions made during programme/project design (Folke *et al.*, 2002b; Levin, 2003; Zazueta and Garcia, 2014).

Figure 2. Designed Outcomes of the Global UNIDO-UNEP RECP Programme



¹¹ It is often the evaluators who develop a TOC and verify and amend it in interviews with key stakeholders.

The programme document identified the following among the root causes of unsustainable industrial production:

- There is limited awareness of opportunities for and benefits of CP and resource efficiency and advocacy is therefore limited;
- Policy and regulatory frameworks for CP do not exist or are not effectively enforced;
- Financial mechanisms available to enterprises and other organizations insufficiently cater to the specific features of CP investments; and
- Existing Service Providers to enterprises, including in some cases the NCPCs, are insufficiently able to effectively support enterprise during the identification, evaluation and implementation of CP opportunities.

The Programme proposed four (4) outcomes to address root causes and bring about the necessary conditions for the transformation towards RECP.

1. **RECP Services Delivery Network:** This included the NCPCs network, or the RECPnet, in order to facilitate information exchange and learning among the national centres/the NCPCs who were tasked to provide RECP services to Small and Medium Enterprises (SMEs) at the national/local levels, and to test and adapt methodologies for this purpose.
2. **Thematic RECP Applications:** This included the demonstration of RECP applications within enterprises and at national/local scales to achieve feasible environmental, economic, and other social benefits.
3. **RECP Incentives:** This will include mainstreaming of RECP into relevant government policy, regulations, and enterprise financing, leading to an effective enabling environment for businesses to implement RECP.
4. **Innovation Capacity:** Strengthening of national capacities for the implementation of Environmentally Sound Technologies (ESTs) and sustainable product development.

The RECP Programme was designed to achieve these four outcomes by targeting ten outputs that would be reached by implementing 24 activities or workstreams. Annex 1 to this report presents the Programme's logical framework (logframe) which includes the specific outputs and activities that were proposed.

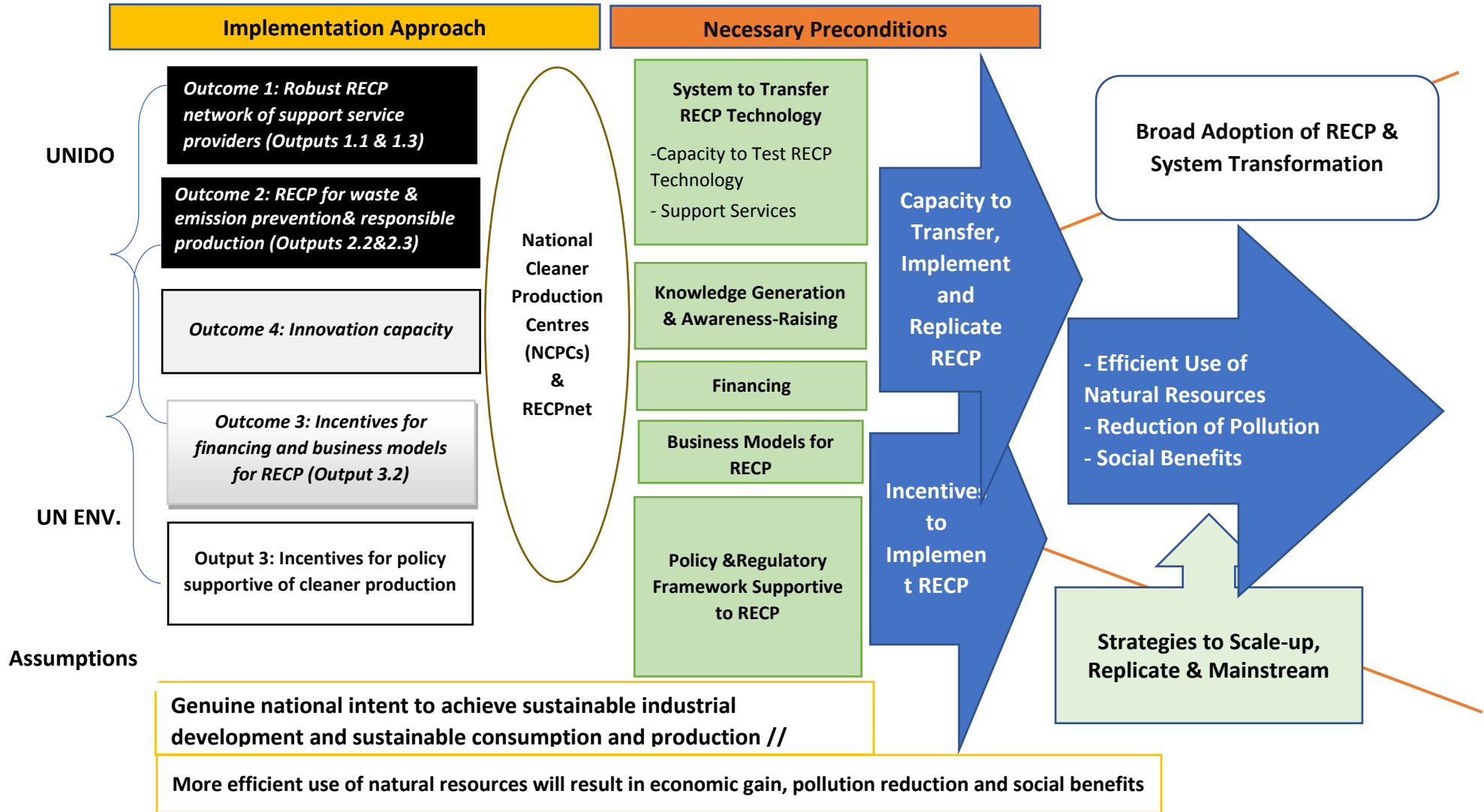
Two important assumptions of the Programme were: 1) that there is a genuine country interest in sustainable industrial development, and 2) that in addition to the environmental benefits of RECP, enterprises would also derive economic benefits from the innovations in the form of resource efficiencies, new product lines, and access to new markets, customer loyalty and so on. One of the criteria for the selection of the countries and enterprises for the Programme was a commitment to RECP. Also, the Programme sought to further develop a methodology to identify RECP recommendations that made business sense.

Programme design anticipated several operational challenges related to the complexity of the processes involved, including:

- The need for the Programme to address problems at multiple scales,
- The need to engage and facilitate the transfer of information across multiple sectors,
- The need to promote synergy and active coordination with other existing bilateral and multilateral initiatives.

Figure 3: The Theory of Change for the Global UNIDO-UN Environment RECP Programme

The Global UNIDO-UN Environment Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries



The programme document did not provide a theory of change (TOC), but contained sufficient information to develop a TOC. As indicated in Figure 3, the Programme pointed at 5 necessary conditions that would lead to capacities and incentives to adopt RECP.

- Capacities to test, transfer and replicate RECP technology;
- Knowledge and awareness of the opportunities to adopt RECP;
- Tested business models appropriate for the country conditions;
- Available financing for RECP; and
- A policy and regulatory system supportive to RECP.

While the Programme document mentioned the need to address issues at different scales, aside from the identification of the NCPCs and the RECPnet as key agents in the process, it did not explicitly identify how the Programme would catalyse broader adoption and behavioural change that would lead to the transformation to sustainable industry. The TOC proposed in this evaluation distinguishes between three different mechanisms of broader adoption:

- **Mainstreaming**, whereby information, lessons, or specific aspects of an initiative are incorporated into a broader stakeholder initiative. This may occur not only through governments but also in development organizations and other sectors.
- **Replication**, whereby an intervention is reproduced at a comparable administrative or ecological scale, often in different geographical areas or regions.
- **Scaling-up**, where supported initiatives are implemented at a larger geographical scale, often expanded to include new aspects or concerns that may be political, administrative, economic, or ecological in nature. This allows concerns that cannot be resolved at lower scales to be addressed, and promotes the spread of contributions to the broader system.

D. Programme Implementation and Execution Arrangements

The overall approach to implementation proposed in the Joint UNIDO-UNEP Programme Document (2009) continued to focus on the NCPCs as the main country outreach instruments. This approach sought to build upon the work that these two agencies had carried out over the past fifteen (15) years. Many of the national centres had by this time developed the necessary capacities to execute country activities related to CP. The initial Programme design identified CP centres in forty-two (42) countries and estimated an overall Programme cost of Euro 69.4 million.

Following the recommendation of the 2008 evaluation of the UNIDO-UNEP Cleaner Production Programme, and building on the experience of the Latin American network of centres, the Programme document proposed the creation of a global network of NCPCs (RECPnet) to help build their capacities and facilitate exchange of knowledge and lessons. The two collaborating agencies, now called “Patron Agencies”, kept the overall division of labour that had emerged over the years. UNIDO continued to have a more active role in matters related to RECP services delivery network as well as to RECP applications (Outcomes 1 and 2 in Figure 3). UNIDO also assumed a lighter role in supporting the development of RECP financial models (Outcome 3 in Figure 3). UN Environment provided some support to

the global and regional meetings of the RECP Centres, but focused mostly on aspects related to innovations and to lesser extent on policy (Outcome 4 and 3 in Figure 3).

The Joint UNIDO-UNEP Programme Document, which was approved by UNIDO in 2009, also addressed the need for an effective interagency coordination. This is a weakness that had been pointed out by the 2008 evaluation, which had resulted in multiple isolated projects with little to no interaction, synergies, or mutual learning taking place. To ensure suitable coherence and coordination, the Programme document proposed the establishment of three (3) instruments: a) a Programme Board comprised of the Directors of UNIDO and UNEP, representatives of donors and representatives of the geographical regional groups within the Programme; b) a Programme Management Group formed by UNIDO and UNEP staff; and c) the Network Committee.

E. Programme Preparation

Programme Design

The Programme document started in the right direction by focusing on the root causes of industrial waste and pollution, which pointed towards the necessary conditions required to bring about the desired long-term transformation to cleaner production. The guidance for project development and implementation was less precise.

The Programme proposed twenty-four (24) activities, but it provided no guidance on how these activities would be integrated. While the Programme document identified several strategies to generate change, it did not clearly identify the key conditions needed to generate the capacities and incentives for the RECP transformation. Also, as indicated earlier, while the NCPC were identified as one of the key agents in the process of technology transfer, the Programme document did not address the specific mechanisms by which the Programme would influence the broader conditions that would provide the incentives for enterprises to adopt the new technologies the Programme introduced. The policy context was identified as important, yet the Programme document did not provide guidance on how to address policy reforms, the level of policy reforms that could be targeted or the mechanisms by which the Programme could influence policy. For example, the Programme document could have specified that in this context policy needs not be understood as high-level policy, but as sector-level policy instruments such as regulations, standards, incentive programmes and other policy instruments that could be derived from the lessons from promoting and testing new RECP approaches.

The Programme document correctly identified Programme coordination as a key issue during implementation, but its proposal turned out difficult to implement. Instead of focusing on the strengthening of UNIDO's and UNEP's institutional mechanisms of supervision and reporting, the Programme document introduced a set of mechanisms dedicated exclusively to the Programme, some of which were of a high profile, but not very feasible. It was not realistic to expect the Directors of UNIDO and UNEP and the donor representatives would form part of a Programme Committee to approve management plans every six months. Instead of proposing a new high-profile mechanism for governance and coordination within the Agencies, the Programme could have focused on mechanisms of a lower profile, which would have been more realistic and would have strengthened existing institutional procedures for risk tracking, reporting and supervision. The Programme

document could have also proposed a mechanism for interagency coordination that was more operational and that identified the specific areas in which interagency coordination needed to take place, such as the selection of the participating countries and NCPs types of support, the planning of RECPnet meetings, and so on.

F. Programme Logical Framework

The Programme logical framework is moderately satisfactory. The RECP Programme (2009) document included a series of tables, which specified several logically linked outcomes, outputs and activities, and their means of verification. The logframe indicators column in many instances did indicate the type of changes that the Programme intended to bring about at various programmatic levels. In most cases, indicators in the Programme’s logframe are not precise enough to allow for quantification and aggregation to measure across the Programme. For example, Activity 1.1.2 was to “establish and operate a knowledge and information sharing and management platform”. The indicator was “existence and use of the platform”. No specific indicators, such as the number of hits to the site or the number of items uploaded by stakeholders, were specified. The total number of outputs and activity indicators were thirty-eight (38), which were too many to be realistically tracked. The means of verification typically included the Biannual Management Reports of the UNIDO – UN Environment RECP Programme and the Annual reports of the RECP Service Providers participating in the Network.

G. Programme Financing

The RECP Programme was used as a framework to develop projects that were presented for funding to different donors. Over time, the RECP Programme grew considerably.

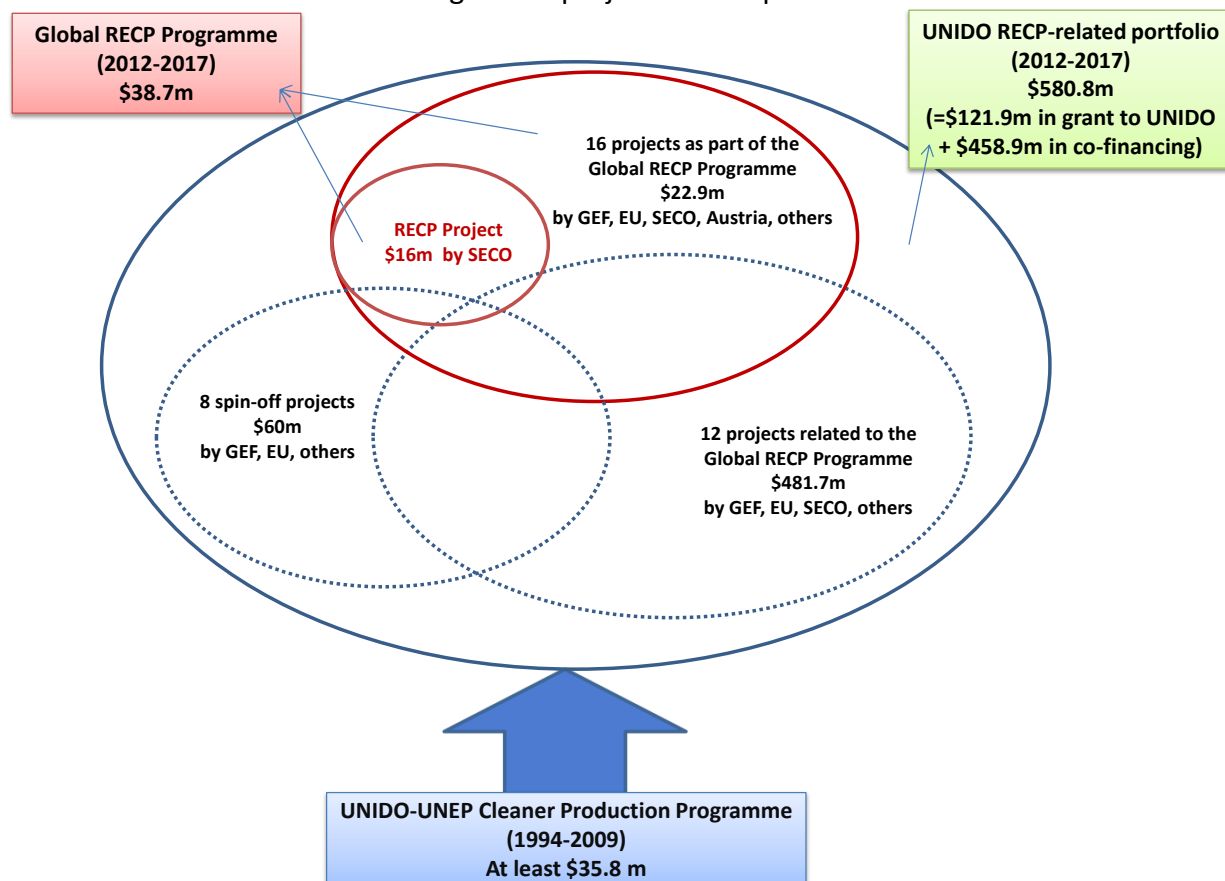
Table 1. UNIDO RECP-related Portfolio, 2012-2017

#	Type of project	N. of projects	Project status	Key donors	Total budget (USD)		
					Grant to UNIDO	Co-financing	Total
1	RECP Project	1	Ongoing	SECO	16,000,000		16,000,000
2	Projects as part of the Global RECP Programme	16	9 Ongoing 4 Completed 3 Start-up	GEF(1), EU(1), SECO (4), Austria (3), Slovenia (2), others	22,773,640	127,200	22,900,840
3	Spin-off projects	8	3 Ongoing 3 Pipeline 2 Completed	GEF(3), EU(2)	16,997,100	43,257,951	60,255,051
4	Projects related to and synergistic with the Global RECP Programme activities	12	8 Ongoing 3 Pipeline 1 Completed	GEF (4), EU (2), SECO (3), others	66,136,168	415,550,026	481,686,194
	Total	37			121,906,908	458,935,177	580,842,085

Source: UNIDO Open database, Project Managers, UNIDO 2008 Independent Evaluation - Cleaner Production Programme, UNIDO 2015 Independent Mid-Term Evaluation – Global RECP Programme.

During the last five years, apart from the SECO funded Project, UNIDO approved 16 additional projects (USD 22.9 million)¹² under the context of the Programme and 8 different “spin off” projects (USD 60 million¹³). By 2017 there were also twelve (12) other projects (USD 481.7 million) with RECP components or links across UNIDO that were under implementation or in advanced stages of preparation. By 2017, a total of USD 2.4 million of the SECO Project grant had been channelled to eight (8) other RECP related projects. By October 2017 the total value of UNIDO projects related to RECP exceeded USD 580.8 million. This is sixteen times higher than the USD 35.8 million which is the total amount of the projects under the UNIDO-UNEP Cleaner Production Programme from 1994 to 2008 (see Figure below).

This financing was provided by a broad diversity of donors that included the GEF, European Union, Switzerland, Austria, Japan and other countries. This evaluation’s findings are in sharp contrast with the perception of some stakeholders that the Programme fell short of expectations in the raising of funds from other sources apart from SECO. While twelve (12) of these projects were not fully dedicated to RECP, this growth of funding underlines the critical importance of RECP for UNIDO as an organization and of the need to coordinate RECP related activities and learning across projects and departments.



¹² This includes the SECO RECP Project valued at USD 16 million and 16 other projects valued at a total of USD 22.8 million.

¹³ This amount includes also co-financing funds contributed by other partners (which are not transferred through UNIDO’s bank account).

III. RECP PROJECT FUNDED BY SECO

A. Project design

The Government of Switzerland, through its State Secretariat for Economic Affairs (SECO), confirmed its financial contribution of CHF 16.5 million (16,000,000 USD)¹⁴ to UNIDO to the Global RECP Programme in November 2011, nearly two years after it was designed. This was the first substantial financial contribution the Programme had attracted. The grant was awarded on the basis of a document titled “UNIDO Work Plan 2012 and Outlook 2013-2016 for Programmatic Activities (UE/GLO/11/035)” and the Programme document, which formed the basic elements of the SECO RECP Project. The Project was initially scheduled to last five years and conclude in December 2016. However, it has been extended twice and is now expected to be completed in December of 2018.¹⁵

Table 2: Original Budget Allocation to Project’s Outputs

Project Outputs	Details	Budget (million)*	
		CHF	Euro
1.1: RECP Network	Active network of RECP Services’ Providers established, network members recruited and a programme of networking, learning and information sharing activities in place that addresses the needs of different members	1.5	1.41
1.3: RECP Scaling Up	Existing NCPs/NCPPs supported in regard to scaling-up of their activities and impacts and their further institutionalization and professionalization	4.05	3.81
2.2: RECP for Waste and Pollution Prevention	Thematic projects on RECP for waste and pollution prevention developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services’ Providers	3.15	2.96
2.3: RECP for Safe and Responsible Production	Thematic projects on RECP for safe and responsible production developed, implemented and evaluated and methods and	2.9	2.73

¹⁴ Figures that were originally provided in Swiss Francs (CHF) and Euros (EUR) were converted to United States Dollars (USD) using the UN Exchange rate as of 8 May 2017.

¹⁵ In 2012, the European Union (EU) also provided EUR 12 million (USD 14,264,400) to finance UNEP’s related activities. UNIDO’s implementation plan for the Project was presented in the ‘UNIDO Work Plan 2012 and Outlook 2013-2016 for Programmatic Activities (UE/GLO/11/035)’

Project Outputs	Details	Budget (million)*	
		CHF	Euro
	results effectively disseminated in participating countries and in the network of RECP Services' Providers		
3.2: RECP Financing	Flexible framework of guidelines and instruments for mainstreaming RECP in enterprise financing developed, trialled and evaluated in selected countries, methods and results widely disseminated through the network of RECP Services' Providers, and capacity built of financial sector and business services' providers to avail and utilize appropriate financing options for RECP-investments	3	2.82
<u>Total budget</u>		<u>14.6</u>	<u>13.72</u>

Source: Project agreement.

Note: *) The budget excluding Project Support Cost

The UNIDO Work Plan 2012 identified six outputs consisting of eight (8) workstreams (WS) out of the 24 WSs included in the Joint UNIDO/ UNEP Programme Document. The table presents the original budget broken down by Programme output. Funding in the Project focused (around 80% of its budget) in support of the RECP network, in aspects related to the transfer of RECP technology and the systematising of RECP implementation experiences through the production of manuals and toolkits (Outcomes 1 and 2). A smaller amount of project funds was dedicated to the development of a financial model for RECP implementation¹⁶.

The eight (8) selected workstreams are as follows:

WS 1: RECP Services Delivery Network

This workstream was aimed at strengthening the RECPnet as a tool to enhance the capacity of the RECP service delivery at the country level.

¹⁶ UN ENVIRONMENT's most prominent role was in the outcomes related to innovation and policy and regulatory frameworks (Outcomes 4 and 3), and also provided some support, to a lesser extent, to RECP network meetings, and to six (6) NCPCs in order to demonstrate the business case for Eco-innovation (related to Outcome 1).

WS 2. Knowledge Management (KM)

The objective of this workstream is to ensure that the best RECP practices are captured, disseminated and utilized by RECPnet members. There are two (2) key aspects of this workstream: a web-based Knowledge Management System (KMS) and Technical Working Groups.

WS 3. Eco-Industrial Parks (EIP)

Workstream 3 is aimed at scaling-up RECP application in clusters of enterprises located in industrial zones or in close proximity. Support would take place through typical RECP interventions in single firms or through industrial symbiosis opportunities – when by-products of one industry are inputs for another industry. Additionally, the capacity of park management in order to facilitate and monitor the transition towards EIPs would be strengthened through dedicated trainings and consultation meetings. The UNIDO Work Plan (2012) identified two (2) main outputs in this workstream. One was the production of an EIP guide on good management, business and financing of practices for sustainable industrial zones with an emphasis on RECP. The second output was the identification of opportunities for RECP pilot projects to be co-financed with other agencies.

Box 1. Eco-Industrial Parks (EIPs)

EIPs are “a community of manufacturing and service businesses located together on a common property. Member businesses seek enhanced environmental, economic, and social performance through collaboration in managing environmental and resource issues. By working together, the community of businesses seeks a collective benefit that is greater than the sum of individual benefits each company would realize by only optimizing its individual performance.” Lowe (1997).

WS 4: Methods and Tools v.1.0

Workstream on RECP methods and tools is aimed at supporting the pilot application of innovative tools for implementation and scaling up of RECP at enterprises. It was aimed at scaling-up the application of RECP within industry sectors through the development and trial of best practices and novel methods and tools, including manuals, resource packages, and so on.

WS 5: Industrial Waste Minimization for Low Carbon Production

The aim of this workstream is to achieve significant reductions on waste by using organic by-products as a source of energy through either sector- or technology-based approaches.

WS 6: Safe and Responsible Production

The aim of this workstream is to improve chemical safety through the adoption and environmentally sound management of chemicals and safe chemical substitutions. This work stream builds on work previously carried out by UNIDO but specifically targets chemical alternatives and solutions among three subsectors: producers of chemicals, formulators of chemical products, and industrial users of chemical products. The project planning documents do not specify the number of demonstrations in each of the three (3) subsectors and but do promise a technical primer or manual for each subsector.

WS 7: Financing Instruments

This workstream is “aimed at assessing and promoting innovative financing instruments for mainstreaming RECP into enterprise finance, including, for example: incentive grants, subordinate loans, leasing, etc.”

WS 8: Innovative Business Models

UNIDO promotes two business models on industrial symbiosis and Chemical Leasing (see Box 2). Project activities pertaining to industrial symbiosis have been addressed when discussing Workstream 3- Eco-Industrial Parks. Building on UNIDO’s experience on the promotion of chemical leasing, this workstream “aimed at the promotion of serviced-based business models that would reduce the investment burden on SMEs for accessing and implementing innovative RECP practices and technologies” (UNIDO, 2012). The activities in this workstream are closely linked and complementary to the UNIDO Chemical Leasing Programme, which is supported by Austria, Germany and the EU, among other donors. The activities of this workstream have been operationally linked to Workstream 6 on the Safe and Responsible Production.

Box 2. Chemical Leasing

Chemical Leasing is a service-oriented business model that shifts the focus from increasing volume sales of chemicals, towards a value-added approach. The producer mainly sells the function performed by the chemical, and functional units are the main basis for payment. Examples of functions performed by the chemical are the number of pieces cleaned and amount of area coated with a chemical (UNIDO 2015).

Assessment of project design

Project design is unsatisfactory. The 2012 UNIDO Work Plan was an instrument for funds disbursement, rather than a project document. It lacked many elements of a project document including the justification for the selection of activities, a logframe or indicators. The Work Plan referred in very general terms to the overall framework presented in the Joint UNIDO/UNEP Programme Document as the basis for the choice of workstreams. But there was no justification for the choice or the allocation of funds among the workstreams. There is no case made for a logical chain of causality between the activities selected. Some workstreams seem to have a mix of overlapping activities but with no guidance for their integration. For example, while there is a workstream on RECP Methods and Tools, several other workstreams had the development of RECP-supporting toolkits as a central feature of their work. The project document also provided no indication of how the workstreams would be integrated to contribute to the conditions necessary to reach long-term objectives. It also made no mention of the governance and coordination structure described in the RECP Programme document, or how the Project M&E would interface with the Programme’s.

Amendments to the SECO /UNIDO grant agreement included the relocation of CHF 2.1 million to other five (5) RECP related projects. The evaluation team could not find reliable information to assess the outputs and outcomes achieved through these reallocated funds. Nevertheless, a review of the RECP related portfolio in UNIDO indicates that funds from the SECO project have been allocated to eight (8) other RECP related projects in UNIDO for a total of USD 2,426,326.

Project Monitoring and Evaluation Plan and Budget

M&E design is rated as unsatisfactory. The Work Plan presents deliverables for the specific outputs that were financed by SECO, but did not identify any activity indicators. Instead, it identified priorities for project implementation for 2012 and 2013 (input targets) but making no mention of indicators. From the Project budget, a total of 107,834 EUR was allocated for its midterm and final evaluations, while no fund was budgeted for monitoring¹⁷.

B. Mid-Term Evaluation and Follow-Up by Management

The Mid-term Evaluation (MTE) of the Project was conducted in October 2015 and included a set of detailed key recommendations. The recommendations were grouped for UNIDO and UNEP, for SECO, and for the RECPnet, addressed to its Executive Committee and in general the members. The key recommendations for UNIDO and UNEP were each detailed in a number of sub-recommendations. Annex 4 presents a detailed assessment of the extent to which project management met the recommendations of the MTE. The management response procedure within UNIDO requires that the project manager provide comments on the acceptance/partial or non-acceptance for each recommendation within one month after the transmission of the MTE report. One year after the MTE report, the project manager is required to provide information on actions taken and the status of the implementation. However, in the RECP Project the response was already provided in January 2016, and therefore most of the actions in the Response were indicated as 'ongoing'.

The MTE included thirty-six (36) recommendations, all of which are assessed by this final evaluation to be highly pertinent to the project. By the time this final evaluation took place in August 2017, of the 36 recommendations made by the IME, fourteen (14) had been met, twelve (12) were partially met and ten (10) had not been met. Detailed feedback was given for the recommendation on UNIDO programme management, procurement and human resource management. Most of the administrative recommendations affecting project efficiency were addressed. Five (5) recommendations to SECO and eighteen (18) for RECPnet were dealt with correctly in the Management Response. Seven (7) of the eight (8) recommendations to UNEP and UNIDO were dealt with in the Response at the general level, and no response was provided to the details of each recommendations. This indicates no insight is available on what actions were taken regarding these detailed recommendations. Table 3 presents six (6) strategic issues raised by various MTE recommendations that were not fully met by the project and still require project management attention.

¹⁷ Some of these issues were resolved during implementation. For example, workstream 7 and 8 on Financial Models and Innovative Business Models included mostly approaches to carry out the objectives of the workstream 3 on Eco-Industrial Parks and WS 6 on Safe and Responsible Production and, consequently, their activities ended up being embedded in these workstreams. But most workstreams were implemented in parallel.

Table 3. Strategic Issues Raised by the Independent Mid-Term Evaluation Insufficiently Addressed by the Project

Issue	MTE Recommendations
1. More attention to integration of project activities and policy issues	R1, R7
2. Put in place a Results Based Management system	R2
3. Systematic Programme management and oversight	R7
4. Strengthen ownership and sustainability of RECPnet	R3, R24, R26, R29
5. Address the differentiated capacities and needs of NCPCs	R31
6. Develop Project Gender guidelines	R35, R36

C. Assessment of Project Implementation

Project results are evaluated based on the UNIDO Work Plan 2012 and Outlook 2013-2016, as this is the document that guided project implementation. The focus of this part of the evaluation is on the results directly derived from the SECO-funded Project in each of the 8 workstreams mentioned earlier. Relevance and efficiency have been assessed and rated for the Project as a whole. Given the diverse nature of the Project components, to arrive at the overall Project ratings on effectiveness and sustainability, the evaluation team first assessed and rated each Project workstream. Table 14 presents a summary of the evaluation performance ratings required by UNIDO.

1. Project Relevance

Overall Project relevance is rated as Satisfactory. The relevance of the project mirrors very closely the relevance of the Programme. Overall objectives of the Programme and the Project are relevant to developing and emerging economies. The growing awareness of the risks posed by waste and pollution has resulted in increasing interests of governments and in the adoption of pollution control regulations in developing countries. The integration of global markets and the emergence of regional and bilateral trade agreements have also boosted the adoption of environmental controls in many emergent economies. In countries seeking access to the Organisation for Economic Co-operation and Development (OECD) or seeking accession to the European Union (EU), enterprises are increasingly aware that access to new markets, competitiveness and mere survival as a business will require the improved resource use, efficiency and cleaner production, and assurance of the occupational safety of employees.

Box 3. Evaluation Criteria Definitions

Relevance	The extent to which a development intervention is consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Sustainability	refers to the likelihood that benefits generated by the program will continue over time. The resilience to risk of the net benefit flows over time.

The RECP Programme and the Project are particularly relevant to UNIDO as it directly contributes to UNIDO's mission to help implement the Sustainable Development Goals (SDGs) and other global multilateral environmental agreements¹⁸. The Project is also well suited to UNIDO's distinct competencies and overall mission because it focused on aspects related to industrial production.

The relevance of the specific approaches adopted by the Project differed depending on the characteristics of the targeted industries. The typical technical approach followed under the Project consisted of three steps: 1) the promotion of RECP concept and identification of enterprises interested in RECP, 2) the completion of a RECP assessment and diagnosis of the production process and inputs of the enterprise, and 3) development and delivery of recommendations to improve efficiency and reduce waste and pollution. Final recommendations also frequently included labour safety measures. This approach is well-suited to small to medium enterprises. It contributes to raise awareness of RECP among enterprises. While this approach does not result in an overhaul of the production process, it does identify opportunities that are within reach of Small and Medium Enterprises (SMEs). In the instances in which the Project has promoted more specific technologies that require major capital investments or shifts in business models, the relevance differed according to the types of participating industries and their access to financing.

Thus, while in Vietnam access to financing led to the adoption of pyrolysis, in Colombia and Peru farmers perceived pyrolysis as a technology not suited to local conditions, as it required further testing and considerable capital investments. Chemical leasing and industrial symbiosis are also best suited for specific sectors such as the hospitality sector, or require levels of trust and institutional conditions often not present in developing countries.

¹⁸ The specifically refers to the Stockholm Convention on Persistent Organic Pollutants (POPs), the Montreal Protocol, the Minamata Convention on Mercury, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the United Nations Framework Convention on Climate Change (UNFCCC).

2. Project Efficiency

In this evaluation Project efficiency is mostly assessed in relation to the efficient use of time and money. Overall the Project efficiency was found to be Moderately Unsatisfactory. Slow project start-up and disbursement in the early stages of the project resulted in significant delays in Project implementation. Also, the midterm evaluation reported frequent complaints from stakeholders related to slow administration procedures and unanswered stakeholder requests. This evaluation found only one such complaint after the midterm evaluation took place in October 2015, related to Indonesia. Management has dealt with the slow disbursement by requesting two extensions from the donor, which were granted.

Table 4: Breakdown of Project Expenditure, as of April 2017

Financial Status as of <u>30 April 2017</u>	Released budget		Expenditure		Expenditure against original budget (%)
	CHF	EUR	CHF	EUR	
Output 1.1 RECP Network				1,956,326	139
WS1: Operational support RECPnet (100050-1-01-01)	1,491,297	1,378,915	1,338,797	1,237,908	
WS2: RECP Knowledge Management System (100050-1-01-02)	846,434	782,648	776,969	718,418	
Output 1.3 Scaling up RECP				2,171,217	57
WS3: Eco-Industrial Parks (100050-1-01-03)	2,310,688	2,136,558	1,732,559	1,601,996	
WS4: RECP methods and tools (100050-1-01-04)	675,960	625,021	615,613	569,221	
Output 2.2 RECP for Waste and Emission Prevention				2,185,376	74
WS5: Industrial Waste Minimization (100050-1-02-01)	2,400,806	2,219,886	2,363,484	2,185,376	
Output 2.2. Safe and Responsible Production				1,929,531	71
WS6: Innovative Chemical Solutions (100050-1-02-02)	2,187,461	2,022,617	2,086,787	1,929,531	
Output 3.2: RECP financing				324,268	11
WS7: RECP financing instruments (100050-1-04-01)	320,307	296,169	81,929	75,755	
WS8: Innovative Business Models (100050-1-04-02)	366,570	338,946	268,767	248,513	
Output: Evaluation					
Evaluation (100050-1-53-01)	116,623	107,834	47,936	44,323	
Output: 3%psc					
3% psc (100050-1-54-01)	371,977	343,946	270,221	249,858	
Total	11,088,123	10,252,594	9,621,995	8,896,897	65

Source: UNIDO ERP database, UNIDO Project Managers

Notes: UN Exchange rate as of 8 May 2017: 1 Euro = CHF 1.0815.

Text from the TOR accompanying the table: By 30 April 2017, around EUR 8.9 million (¹⁹) had been expended (excluding PSC), accounting for around 65% of the planned budget. In late April 2017, a request to extend the programme till the end of 2018 was approved. The breakdown of expenditures is provided in the following table.

Last column on "Expenditures against original budget (%)" was calculated based on the original budget

With the Project extensions, by April 2017 the project had spent 65 % of the original grant funds (see table above). In addition to the project delays, a favourable exchange rate also resulted in more funds being made available to the Project than initially anticipated. While the budget in most workstreams is underspent, fund utilization in WS1 and WS2 exceeded

¹⁹Funding is provided by SECO in CHF, yet converted into EUR upon receipt at applicable bank rates at respective dates of funds transfer.

the original budget allocation at 139% on May 2017. Yet concerns have been raised by some stakeholders regarding the efficiency of the use of funds in some workstreams. A large portion of the funding for WS1 (RECPnet) has been used to finance travel to workshops and conferences, some of which have been held in locations that required costly travel. Some of the interviewed stakeholders considered that the approach to support the network was not cost-effective, and that the costs outstripped the benefits generated to the centres.

In WS 2 Knowledge Management a considerable part of the budget was used for a system that did not meet the network's needs. In WS 5 Industrial Waste Minimization for Low Carbon Production, much of the funding was dedicated to the promotion and demonstration of pyrolysis; but according to some of the interviewed stakeholders, this technology had not been sufficiently tested and adapted for the purposes of the Project. Consequently, the technology was only adopted in Vietnam, the sole country in which subsidies were available to cover the steep capital investments needed for deployment.

Table 5 refers to the number of enterprises in which the Project carried out assessments and diagnosis of the production process.

Table 5: Number of Enterprises Reached by the Project (Firms with Assessments)

Country	WS3	WS 4	WS5	WS 6	WS8	Total
<i>China</i>	20		28			48
<i>Colombia</i>	22		8	34	7	71
<i>Costa Rica</i>	31					31
<i>Peru</i>	26		10	39	12	87
<i>Egypt</i>				49		49
<i>El Salvador</i>				33		33
<i>Guatemala</i>				8		8
<i>Morocco</i>	0			2		2
<i>Uganda</i>				5		5
<i>Tunisia</i>				3		3
<i>Jordan</i>				4		4
<i>India</i>	33	35				68
<i>Kenya</i>				1		1
<i>Dominican Republic</i>				5		5
<i>Bolivia</i>				2		2
<i>Ecuador</i>				2		2
<i>Argentina</i>				2		2
<i>South Africa</i>	40					40
<i>Vietnam</i>	62	4	18			66
Total	238	39	64	189	19	549

Sources: For WS3, the source was the final Eco-Industrial Park final report (dated 29 August 2017). Country information on Vietnam for WS3 was provided in a survey. For Colombia, India, Peru and South Africa, the data presented was collected during fieldwork by the NCPCs. Data for China was gathered from WS3 survey and for WS5 from previous reports for. Data collected in a survey done in September 2017 was used for Egypt, El Salvador, Guatemala, and Morocco. Data for Uganda, Tunisia, Jordan, Kenya, Dominican Republic, Bolivia, Ecuador, and Argentina was provided by the Project management.

3. Project Effectiveness

The overall Project effectiveness is rated as Satisfactory (S). The effectiveness of the Project varied from one workstream to another. Workstream (WS) 3, 4, 5, 6 and 8 are rated as satisfactory while workstream 1, 2 and 7 as Moderately Satisfactory.

The Project helped to systematize and adapt 19 RECP-related methods and toolkits to country conditions and develop 73 case studies and other knowledge products that are well suited to small and medium industries in developing countries. The Project developed these tools through a process that simultaneously strengthened RECP service capacities in developing countries. Through the work conducted by the centres pertaining to WS3 Eco-Industrial Parks, WS5 Industrial Waste Minimisation and WS6 Innovative Chemicals Solutions, the Project assisted at least 549 enterprises to incorporate RECP methods and tools into their business operations (Table 5).

In the process, the Project generated considerable environmental and economic benefits to the participating enterprises. The evaluation verified the benefits that were accrued through Project reports prepared in support of the activities and through the country visits. All the stakeholders that have implemented RECP recommendations interviewed during the evaluation reported reductions in the use of resources (largely in water and energy) and reductions of waste and pollution. It is not possible to provide a systematic and complete report of the extent of improvements in resource utilization and pollution reduction because such changes are not monitored across the Project.

Effectiveness of WS 1 – RECP Services Delivery Network (MS)

The RECPnet was formally established in November 2010 with the support of UNIDO and UN ENVIRONMENT, and originally composed of 41 National Cleaner Production Centres (NCPCs). The RECPnet was created based on a recommendation by the 2008 independent evaluation of UNIDO-UNEP Cleaner Production Programme, which proposed an expansion of the RECP network drawing upon the experience of a NCPCs network in the Latin American region.

The network is divided into regional chapters that elect representatives to an Executive Committee of the RECPnet (ExCom). Officials are elected every two years, with UNIDO and UN Environment participating in the network as “patron agencies” which support the network²⁰. The Project supported the expansion of the network since 2012, which grew to 74 members by 2016. During 2017, a quality control review process was carried out by the ExCom to identify and drop non-performing members. As a result, 11 centres that were no longer active or had not paid their dues were dropped. The network was seen by UNIDO and UNEP as a means to upscale support to the NCPCs, and as an advocacy instrument to increase the recognition of RECP in sustainable industrial development. To this end UNIDO and UNEP facilitated the participation of RECPnet members in the negotiations of the Strategic Approach to International Chemicals Management (SAICM) in 2012, and arranged for RECPnet representatives to participate in and contribute to various Project development

²⁰ Source: http://www.recenet.org/wp-content/uploads/2016/10/RECPnet_Charter.pdf

meetings and Global Forum Activities, aligned with the Green Industry Platform (in 2012, 2013, 2014 and 2016).

Table 6: Global RECPnet Membership

GLOBAL RECPnet Membership				
Global Membership = 63 ; Membership Countries = 60				
Regular Members = 37 ; Associate Members = 5 ; Observer Members = 21				
Regional Networks				
Africa	Arab	Asia Pacific	EECCA ¹	LAC
Cabo Verde Ghana Kenya Mozambique Namibia Rwanda Senegal South Africa Uganda Tanzania Zimbabwe	Algeria Egypt Jordan Lebanon Palestine Tunisia	Cambodia China India (x3) Indonesia Lao PDR Pakistan Philippines Republic of Korea Sri Lanka Vietnam (x2)	Albania Armenia Austria Croatia Czech Republic Finland Georgia Germany Israel Macedonia Montenegro Moldova Romania Russia Serbia Switzerland Turkey Ukraine Uzbekistan	Argentina Bolivia Brazil Colombia Costa Rica Cuba Dominican Republic El Salvador Guatemala Honduras Mexico Nicaragua Paraguay Perú
¹ EECCA Region represents the Eastern Europe, Caucasus and Central Asia block of countries.				

To facilitate networking with other relevant professional communities, the Project scheduled global meetings of the network to coincide with meetings such as the World Resources Forum in Davos, Switzerland (2015) and the World Circular Economy Forum in Helsinki (2017). The Project also financed a Secretariat housed in UNIDO, which since 2015 has provided administrative support to the ExCom and members, and which, with the support of UNIDO and UN ENVIRONMENT, organises regional meetings and training as well as regular global and regional meetings every two years.

Most RECPnet members interviewed value the interaction with colleagues from other centres, and the opportunity to exchange experiences. They appreciate global and regional meetings as a way to remain updated on thinking related to sustainable industrial production. Members also reported that they value the relations with UNIDO and UN Environment as they facilitate staying up to date in concepts, approaches and

methodologies in the field and as a resource that can help open doors to governments and private sector organizations.

Most persons interviewed believe that the global network is still in its early stages and that its potential has yet to be realized; they noted that the network has only been active for a short time. For most persons interviewed, network activities became apparent after October 2015, when UNIDO hired the staff that presently forms the RECPnet Secretariat.

Effectiveness WS2 – Knowledge Management (MS)

One of the outputs of this workstream is the establishment of a KM global platform to make available “a comprehensive and living inventory of available information of materials produced by the RECPnet members”²¹. In the first two years of operation, UNIDO hired a firm to develop the KM platform. But this platform was not able to accommodate some important needs of the network, such as the use of multiple languages and the need to constantly update the global platform through the interaction with the centres’ independent websites. In November 2015, the RECPnet Secretariat hired a KMS global coordinator who was tasked with modernizing the platform and making it more easily manageable.

Table 7: RECPnet KMS Growth of Uploaded Contents

Year	Uploaded (new)		Edited (change)	
	Count	Percentage	Count	Percentage
2013	460	39%	147	13%
2014	22	2%	6	1%
2015	207	18%	74	6%
2016	276	24%	69	6%
2017	177	15%	141	12%
	1142		706	61%

The new system incorporates the use of social media such as LinkedIn, to provide information on business opportunities for RECPnet members; Facebook, for advertising general information about the RECPnet and its members; and Twitter, for spontaneous and periodical tweets and re-tweets on general information, events and the like. Network members in the Latin American region have very active interactions through separate social media channels.

²¹UNIDO Work Plan 2012 and Outlook 2013-2016 For Programmatic Activities (UE/GLO/11/035)

Figure 4: RECPnet KMS Growth of Uploaded Contents

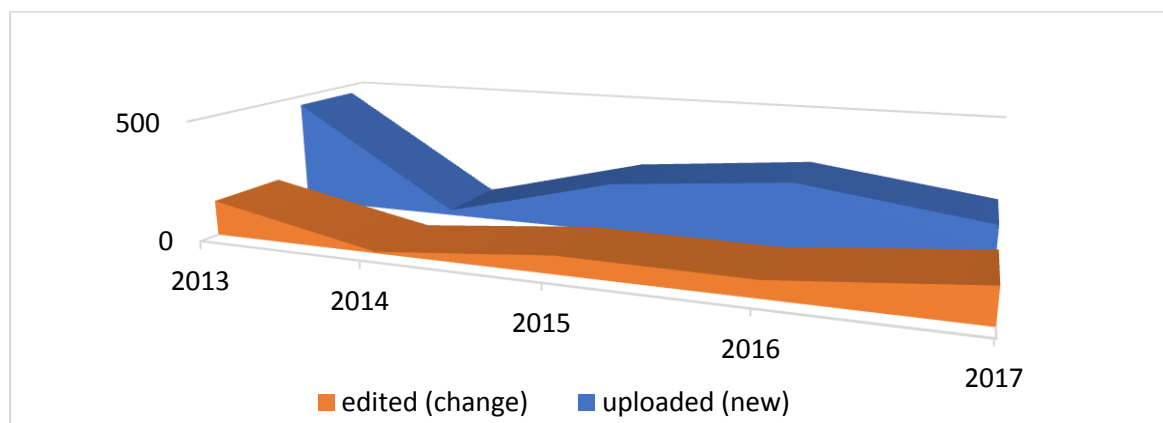


Table 8: Activity in the KMS

other KMS Contents	up to 2015	2016	2017	growth in 2017
Blog: expert Articles	1	19	55	275%
Blog: expert News	2	36	34	89%
Blog: expert Announcements	0	22	26	118%
Training materials	36	12	31	65%
Comments	69	81	65	43%

Despite the hurdles faced, there has been a significant increase of activity in the KMS since November 2015 when the KMS global coordinator was hired (See Figure 4). While 45% of the activity is by the network global coordinator, the statistics show an increase in the changes to documents that had been uploaded which is a sign that existent content is being updated. Also, 70% of the content in the KMS consists of case studies, fact sheets, tools and training materials, which are in line with the expectations of the members. There has also been a growth of blogs in addition to the upload of documents (See Table 8).

Documents in the KMS include tools and case studies developed by RECPnet members, as well as other resources that members consider of interest. However, this repository does not include all the tools or knowledge products developed by the members of the RECP network. In this regard, the KMS global coordinator continues to collect the available tools, case studies, manuals and other materials from the members' websites that have not already been made available through the RECPnet website. Despite all these improvements and given problems with the original design, the new programmers have recommended to scratch the system and to develop a new, more flexible cloud-based platform to meet users' needs.

Technical Working Groups (TWGs)

In late 2016, the Secretariat of RECPnet facilitated the formation of the TWGs as mechanisms to foster learning and cooperation between centres by developing new service

products such as trainings, manuals and guidance documents, and proposals for South-South Cooperation. Selection of the specific working group topics and participants was left up to the members of each regional chapter. The idea was to carry out the TWG with the participation of the centre's technical experts (not the centre's executives).

Three (3) regional chapters responded to the initiative: The Eastern Europe, Caucasus and Central Asia (EECCA); Arab; and Latin America and Caribbean regions. The EECCA region developed benchmarking for the ceramics and food industries. In the Arab region, the tourism sector was the industry of choice, but the product was developed fully by the leader of the TWG, with no contributions from other members of the group. In the LAC region, a self-assessment tool for enterprises was developed under the leadership of the Guatemalan Cleaner Production Centre (CGP+L). The African and Asian regions did not respond, despite having repeated invitations from the Secretariat. In summary, while the RECPnet Secretariat has responded to the requests of members, the responses of members have been very sparse.

Effectiveness WS3 – Eco-Industrial Parks (S)

In 2013, the Project commissioned a global review that examined thirty-three (33) industrial EIPs in twelve (12) countries. This study led to a collaboration between UNIDO, the German Development Agency (GIZ), and the International Finance Corporation (IFC) to develop a standard approach to EIPs that would meet and exceed national requirements and regulations. The Guide was scheduled to be completed to December 2017 and it was not available at the time of this evaluation. The Project also conducted a series of national pre-assessments for twenty-one (21) parks in ten (10) countries. Pilot projects are currently under implementation in seventeen (17) parks funded by the Project. Five (5) of these parks are also co-financed by other donors through other UNIDO projects (4 in Vietnam and 1 in Peru), with other projects are in the pipeline.

At the park scale, the Project has carried out capacity-building of park management staff, stakeholder engagement in planning, and assessment of park infrastructure. At the enterprise level, the Project is supporting typical RECP company assessment (similar to audits), and seeking to identify industrial symbiosis opportunities among firms. As of 30 July 2017, the Project carried out at least 216 company audits that have led to RECP interventions in 101 companies and RECP training in 168 companies. Thus far, the Project has identified six (6) opportunities for industrial symbiosis. As the Project is still ongoing, it is expected that this number will increase significantly.

In fourteen (14) of these parks, the Project is also supporting the development of policies instruments such as regulations and standards for EIPs. Ten (10) of the parks are currently addressing financial issues mostly at the level of the enterprise through parallel financing from SECO and/or the Global Environment Facility (GEF). The Project also expects to support EIPs in applying financial models through the work currently in progress with the IFC. Spin-off projects that have recently started with the support of the Project are currently under

development and will reach parks in Peru, Argentina, Bolivia, Chile, Costa Rica, El Salvador, Guatemala, Panamá, and Paraguay²².

Effectiveness WS4 – Methods and Tools (S)

The Project development and adaptation of RECP tools and case studies has been quite prolific. Despite the work stream's relatively small budget, the activity has benefited from the work in WS 3, 5, 6 and 8. The Project also had as a basis to build on the UNIDO RECP Toolkit. During 2013, few actions took place, mostly on inputs for private sector standards. In 2014 and 2015, a pilot on innovative assessment and monitoring tools (GHG emissions and material flow cost accounting) was launched in India, Indonesia and Eastern Europe, leading to the reassessment and realignment of the existing RECP tools and training and materials. In India these tools were customized and have been widely tested and disseminated (reaching 250 enterprises) and have contributed to major changes in the cement sector in the country.

Activities have also included the development of tools and training materials for Green Company Rating (GreenCo) and Green Product Certification (GreenPro) jointly with the Confederation of Indian Industry - Green Business Center (CII-GBC) who is a member of RECPnet. GreenPro will develop tools for green buildings by providing industry guidelines to the manufacturing industry on material and equipment purchases that increase the market demand for the green products. Other workstreams in the Project (Eco Industrial Parks, Chemical Leasing and Safe and Responsible Production) have also developed tools and training workshops that cover many aspects of RECP. The trend in the workstream is to further integrate and share existing tools that are complementary to the RECP Toolkit in dedicated Project settings.

Effectiveness WS 5 – Industrial Waste Minimization (S)

The Project carried out assessments in at least 64 companies in China, Cambodia, Colombia, Peru and Vietnam, of which at least 43 reported they had decided to implement at least some of the recommendations (Table 9). Recommendations included various options to improve the efficiency of energy, water and other resources, and to reduce pollution. Energy recommendations included as an option pyrolysis, which required considerable capital investments, and other "low hanging" options that required less investment, such as improvements of insulation and combustion systems, good housekeeping and systematic energy consumption monitoring. The Project calculated that the interventions recommended had the potential to reduce 5 to 10% electricity consumption.

Pyrolysis was promoted as a technology of choice to achieve larger benefits, due to its potential to provide heat from biomass and to provide char for soil improvement. This technology was proposed to coffee and rice enterprises in the four countries where farm-level assessments were carried out. A workshop was held by SOFIES, a consulting firm in Switzerland, where the technique was introduced to counterparts in Vietnam and Peru. As part of the Project two pyrolysis plants were installed in Vietnam; both are operational, with

²² While Argentina is not a SECO priority country, the project has reported preparatory activities in this country.

the support of the Hans R. Neumann foundation and the REPIC-Platform (Renewable Energy and Energy Efficiency Promotion in International Cooperation).

In Peru the process of pyrolysis adoption has been slower. In this country, the focus was to develop a mobile prototype; two trials were carried out, but progress has been slow. The interviewed stakeholders indicated that they are interested in the technology, but noted that technical issues need to be resolved for the proper functioning under Peruvian conditions²³. They also indicated that finance assistance is needed for the required investments. In Peru, IMSA, a metalwork company that supplies agricultural equipment is in the process of developing a commercial prototype adapted to local conditions. However, the plant was not operational at the time of the evaluation visit.

In Colombia, none of the enterprises adopted pyrolysis as it was perceived as complex, with no technical support in the country and requiring high capital investment. Instead, two coffee enterprises adopted recommendations to improve the efficiency of existing furnaces and coffee-drying systems. The NCPC also assisted one rice enterprise, Arroz Flor Huila, to sell rice husks as a fuel source to Cemex, one of Colombia’s largest cement companies.

Table 9: Industrial Waste Minimization for Low Carbon Production over 2012-2016

Country	Participating Companies	Companies that Adopted Recommendations
China	28	28
Colombia	8	3
Peru	10	8
Cambodia/Vietnam ²⁴	18	9
Total	64	43

Short videos narrating the experience of introducing Pyrolysis in Vietnam were produced by SOFIES to disseminate the experience and promote its further adoption. The Project calculated the potential benefits, depending on the extent to which recommendations were adopted (see Table 9). SOFIES reports an overall estimated potential impact of 380,000 tons of waste valorised per year and 270,000 tons of CO₂ avoided per year, but presents no information on how it arrived at these figures. While it is likely that some of these activities resulted in significant reduction of CO₂ emissions, energy and water savings, as well as economic benefits to the participating companies, the Project did not monitor energy and water use or emissions.

²³ “Enhancing economic benefits and resilience through pyrolysis based coffee drying”

<https://www.weadapt.org/knowledge-base/sdc-climate-change-environment-network/pyrolysis-based-coffee-drying>

²⁴Resource Efficient and Cleaner Production (RECP) in developing countries: industrial waste minimization for low carbon production in the rice and coffee sectors. Source: http://sofiesgroup.com/The_Project/resource-efficient-and-cleaner-production-recp-in-the-rice-and-coffee-sectors-in-colombia-peru-vietnam-and-cambodia-thematic-program-on-industrial-waste-minimization-for-low-carbon-production-in/

Table 10: Potential Project Environmental Benefits in the Rice and Coffee Sectors²⁵

28 RECP assessments and 50 RECP measures identified Rice and Coffee sectors		
Activities	Environmental Benefits (per year)	Economic Benefits
20 companies implemented low investment RECP measures	<ul style="list-style-type: none"> • 275 tons of CO2 avoided • 980 tons of waste recycled • 900,000 kWh of electricity saved 	<ul style="list-style-type: none"> • Investment: USD 8,600 • Savings: USD 63,588 (Vietnam)
9 ongoing investments projects on RECP technology transfer	<ul style="list-style-type: none"> • 150,000 tons of CO2 avoided • 120,000 tons of waste recycled • Product quality improved (5 to 10% less broken rice due to improved drying) 	Estimated Investments: USD 4,050,000
4 potential investment projects on RECP Technology Transfer	<ul style="list-style-type: none"> • 128,150 tons of CO2 avoided • 268,300 tons of waste recycled 	Investments: USD 5,200,000

In China, the Project carried out re-assessments in 8 enterprises in the cassava sector and full assessments in 4 of them. At the time of the last report available to this evaluation (2015), the firms were in the process of reviewing and implementing recommendations. One enterprise was in the process of investing USD 2,000,000 in CP technology. Subsequently, in September 2017, the proponent reported that a total of 28 firms had benefited from this workstream.

Effectiveness WS 6 – Safe and Responsible Production (S)

Much of the work in this workstream focused on the further development and testing of a toolkit on the Innovative Approaches to the Sound Management of Chemicals and Chemical Waste (IAMC).

This toolkit consisted of four (4) modules: methodology, green chemistry and green engineering, chemical hazards management and innovative business models. Work started in 2013 in collaboration with the NCPs in Colombia, Egypt, El Salvador, Morocco and Peru. Morocco dropped out after the first phase and Guatemala was added in its place. During the initial phases the Project conducted a diagnosis covering the life-cycle of the chemical use in sixty-one (61) companies (see Table 11). At the time of this evaluation, the project was in an expansion phase and assessments were expected in 189 enterprises by the end of 2017.²⁶

²⁵Source: UNIDO UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries. Progress Report January – December 2015, February 2016.

²⁶ Since 2017 the project has been expanding activities to Uganda, Tunisia, Jordan, Kenya, Dominican Republic, Bolivia, Ecuador and Argentina.

Table 11: Companies Reached by Workstream 6 on Innovative Chemical Solutions (2013-2017)

Country	Companies with diagnosis (Phase I & II) ²⁷	Companies in the process (mostly III phase)	Expected Total # of companies by 2017
Colombia	13	21	34
Peru	12	13	25
Egypt	13	7	20
El Salvador	13	10	23
Guatemala	8	5	13
Morocco	2		2
Uganda		5	5
Tunisia		3	3
Jordan		4	4
Kenya		1	1
Dominican Republic		5	5
Bolivia		2	2
Ecuador		2	2
Argentina		2	2
Total	61	80	141

The recommendations from the diagnosis cover a range of activities, some of which can be easily implemented while others can require more time and capital investment. As the recommendations cover the life-cycle management of chemicals, some of the recommendations concern use of waste by other firms, such recommendations are likely to take more time to implement. Recommendations also included change in practices, such as chemical storage, substitution of hazardous chemicals with less-risky ones, reduction in use of certain chemicals, water and electricity consumption reductions, reduction of risks related to accidents, and investments in better equipment/technology.

The interviewed and visited enterprises reported that the recommendations have resulted in more efficient use of energy and water, in reduction of waste, and in eco-efficiencies leading to financial benefits. Stakeholders also reported safer working conditions as a result of cleaner and better organized factories and the adoption of low-cost protection equipment. However, most companies did not keep records or data of the improvements.

²⁷ In phases I and II Peru initiated diagnosis in 13 companies but one dropped out. In Morocco there were initially 5 companies but 3 dropped out. In total so far 4 companies have dropped out during the diagnosis.

Only the companies that are participating or have participated in SECO's Environmental Credit Line have kept records of the reduction of resource use and costs as part of their contract with SECO. The Project estimated that the recommendations made to the first thirty-nine (39) firms that participated in the Project have the potential to reduce the use of chemicals indicated in Box 4.

Box 4. Estimated Annual Reduction in Consumption of Chemicals and Waste in 39

Enterprises

Over 2012-2015

- 600 t of chemicals
- 8,100 kg of nonylphenol ethoxylate
- 1,400 t of VOC
- 700 t of CO₂
- 60 t of waste
- 400 kg of formaldehyde
- 10 t of heavy-metal containing pigments avoided
- 280 t of plastic reused

Effectiveness WS 7 – Financing Instruments (MS)

Activities pertaining to financial instruments have been closely linked with Workstream 3 on eco-industrial parks. As indicated, UNIDO started working with the IFC to develop guidelines for financing eco-industrial parks in late 2016. Other outputs have consisted of capacity-building in the form of workshops largely oriented towards the centres participating in the RECPnet. Activities also included work with the IFC and OECD to strengthen RECP financing in the Eastern Europe and Caucasus region (2014); a workshop on SME Finance held in cooperation with the Deutsche Bundesbank and Fraunhofer Institute for International Management and Knowledge Economy (2016); workshops on RECP finance services for SMEs and requirements to access green credit lines for SMEs (2016); and discussions in the RECPnet meetings on topics such as project bankability according to the Basel III requirements, including the international regulatory framework on bank capital adequacy, stress testing and market liquidity risks.

The development of guidelines for the financing of eco-industrial parks, while highly promising, was only commenced in late 2016, and was therefore in its early stages at the time of this evaluation. The workshops supported by the Project, while most likely informative to RECPs, also seemed to be opportunistic. The evaluation team did not see a plan or strategy for capacity building or an agreed-upon criterion for the selection of topics or centres to participate in each workshop.

Effectiveness WS 8 – Innovative Business Models (S)

The outputs in this workstream have consisted of reports, awareness-raising activities, websites, and support to a NCPC for the facilitation of chemical leasing (ChL) agreements. The Project produced two ChL reports: “Innovative business models for RECP in Developing and Emerging Economies” and the “Global Promotion and Implementation of Chemical Leasing Business Models in Industry, 10 Year Outlook”. The latter report presents UNIDO’s accomplishments in its chemical leasing programme since 2004 (See Box 5), and a summary of UNIDO’s strategy for 2015 to 2025. Other important outputs are the development of two websites: The Chemical Leasing Toolkit (www.chemicalleasing-toolkit.org) and the Chemical Leasing web site (<http://www.chemicalleasing.org/>).

Box 5. The UNIDO Chemical Leasing Programme

UNIDO has been involved in the promotion of chemical leasing since 2004. Since that time UNIDO, has assisted in over 50 cases of chemical leasing across 14 countries. Two of these cases took place in the context of the RECP Global Project financed by SECO. The Colombia National Cleaner Production Centre has been the most active centre in this regard.

UNIDO reports that from 2008 to 2011 (prior to the time this project started), ChL activities of the Colombia NCPC included the training of 182 persons, awareness training of 240 persons including decision makers, business persons and academia, and that it had contacted 70 companies to explore chemical leasing opportunities. Up to now, CNCPC has facilitated 6 ChL agreements.

There were also numerous awareness raising and promotional activities in El Salvador, France, Georgia, Germany, Netherlands, Peru, the Republic of Korea and Switzerland. More than 1000 individuals were informed and 100 trained on chemical leasing. The Project promoted the Joint Declaration on Chemical Leasing between UNIDO, Austria, Germany and Switzerland that was signed in 2016.

The Project also assisted companies to reach two (2) chemical leasing agreements with the support of the Colombian National Centre for Cleaner Production. One case involved Polikem as a service provider, and Renout Sofasa as the user, an automaker. This agreement consisted in services of anticorrosion protection for automobile cabins at the Sofasa assembly plant. The other involved Transform–Hidrocnik as the service provider and the corporation Corceramica as the user. This agreement pertained to the recirculation of domestic wastewater in ceramic manufacturing processes. In addition, enterprise diagnosis carried out under workstream 6 Safe and Responsible Production have also led to a number ChL contracts. The project manager responsible for this workstream estimate that about 10% of the recommendations from diagnosis are related to ChL. For example, chemical leasing has been reported as frequently found in the hospitality sector, where hotels often contact services for cleaning and laundry in Brazil, Serbia and Croatia.

In general, the Project has found out that ChL works best for services that are not in the core area of expertise of the client company. For example, for an automobile manufacturer, preparing metal surfaces for painting is not its core area of expertise. In such cases, enterprises can enter into a contract with a different company that has the required expertise and can do the job at a lower cost and using fewer chemicals. The business models promoted by the Project are promising, but they are applicable under specific conditions (Lozano, Carpenter, and Lozano, 2014; Schwager, Decker, and Kaltenecker, 2016). There is

room for more centres to develop capacity in supporting these business models, but care should be taken to target conditions and sectors in which these models are applicable.

4. Sustainability of Project Results (ML)

The overall rating for the sustainability of the Project results is moderately likely (ML). Sustainability refers to the likelihood that the benefits generated by the Project will continue over time. While external factors or internally generated disruptions affect the sustainability, well planned projects can identify the likely risks and build the capacities and conditions that will enhance the resilience in the face of risks. Overall, the benefits generated by the Project at the enterprise level through WS 3, 5, 6, and 8, while modest in most cases, are likely to be sustainable given the fact that in most instances, they consist of low-hanging fruits that take advantage of eco-efficiencies, or can be implemented at relatively low costs or with quick capital returns. Participating firms also reported that compliance with environmental standards have reduced transaction costs and improve their competitiveness as environmental regulations get more stringent. Benefits related to the development of RECP tools and guidelines (WS4) are also likely to continue to be used. The sustainability of chemical leasing (WS8) is moderately likely due to the governance deficiencies in many developing countries which can affect delivery of contractual commitments. Accomplishments in WS 5 are also rated as moderately likely to be sustainable, considering the risks typically associated with the introduction of complex technologies. As the Project currently stands, sustainability results in workstreams 1 (RECPnet) and Workstream 2 (KMS) is less likely. Yet as indicated in the recommendations, this could be turned around given the time left for Project implementation.

Sustainability WS1 - RECP Services Delivery Network (U)

Network ownership by members - a key element for the sustainability of the network— is weak. NCPs ownership and involvement in network activities among the members differ widely across the geographical regions. Two factors were identified as having constrained the its development. One factor is the widespread perception among the network members that the network is part of the RECP Project and to some extent the responsibility of the Patron Agencies (i.e. UNIDO and UN ENVIRONMENT). This is illustrated by the high percentage of membership fees that are in arrears (estimated at 50% in December 2016). The second constraining factor is a wide heterogeneity among the members, which results in a broad diversity of needs and centre expectations. Stronger leadership on the part of the ExCom and a sharpened mandate for The Secretariat based on realistic resources are needed to overcome these constraints and realize the potential of the network.

Sustainability WS 2 – Knowledge Management (U)

Restrictions in the adaptability of UNIDO's ICT infrastructure have prevented the posting of some of the tools and case studies collected from the centres and other stakeholders. This has hampered the utility of the entire collection. The Project management is currently exploring cloud hosting as an alternative. The Secretariat also expressed concern about the maintenance of the database once the Project ends as there is need to find a permanent home and a properly staffed mechanism to ensure that the collection is updated and made available to stakeholders. The TWGs are a direct response to requests of the centres to

facilitate more interaction on the priority topics that they selected. This was an area of interest frequently mentioned by centres during the interviews for this evaluation. However, the response has been low except for the LAC region and, to some extent, the EECCA region. Once again this is linked to the low ownership of the RECPnet by the centres in most of the regions given the fact that some of the centres felt that this was an unfunded mandate from UNIDO.

Sustainability WS 3 – Eco-Industrial park (L)

While still in an early stage, a preliminary assessment on the sustainability of this workstream is possible based on the progress made so far. The Project has followed a systematic and technical approach in the selection of the industrial parks, which has allowed for the identification of countries and parks that have shown interest and commitment to improve. The workstream includes a component to develop financial models appropriate for EIPs, a factor which is likely to address at least some of the financial risks to sustainability. The Project is also supporting activities related to policy and regulatory issues specific to EIPs. In most cases this is being done through policy analysis examining obstacles to the adoption of industrial symbiosis (IS) or RECP, by assisting in the development of regulations for sound environmental management of EIP, and through the building of capacities for EIP planning at the provincial and country levels. Also, given the global trend towards economic integration and trade agreements it is likely that countries will continue to strengthen their policy on EIPs and associated regulatory frameworks.

Box 6. Industrial Symbiosis (IS)

IS refers to the exchange of by-products of one company (or sector) by other companies (or sectors) in close geographic proximity

More broadly, industrial ecology can be described as the design of industrial infrastructures as if they were a series of interlocking ecosystems with interfaces with the natural global ecosystem (UNIDO, 2016).

Sustainability WS 4 - Methods and Tools (L)

Sustainability of the tools and methods developed or improved by the project pertain to the extent to which stakeholders are likely to continue to use them in the future. Sustainability is thus directly related to the perceived usefulness and ease of use by stakeholders of the tools and knowledge products developed by the project. Although the basic RECP toolkit and training materials are used widely by the Centres, the specific tools used depend on the services that centres provide. To ensure that the project is meeting the needs of the NCPCs, the project has engaged the RECPnet in the systematization of knowledge products. Given the growing diversification of the centres and the demand for diverse types of tools, efforts are currently focusing on systemizing the existing tools (both directly developed by UNIDO and relevant other tools) into a 'Navigator' system that will enable RECPnet members and others to quickly access to the desired tool (through WS 2). The basic set-up for this systemization lie in the seven (7) key services that has been identified by the RECPnet members: awareness-raising, capacity building, company assessment, project proposals, technology transfer, policy advice, and finance. UNIDO's 'own' set tool, primarily the various cleaner production tools, are now systemized together with over 60 other tools that are currently in the UNIDO RECP knowledge management system – yet there are still many more relevant tools not yet incorporated in the system. The ongoing systematization of the

tools and their availability in the web are likely to increase the likelihood that they will continue to be used in the future and will increase their utility.

Sustainability WS 5 – Industrial Waste Minimization (ML)

The benefits that have been generated so far by the introduction of incremental improvements will likely be sustained at the level of the enterprise. In most cases, incremental improvements have implied little or no costs and have resulted in economic, labour safety and environmental benefits. These changes have mostly consisted in the modification in practices in the production processes that have resulted in eco-efficiencies. In the case of the introduction of pyrolysis in Vietnam, the situation is different. Technical capacities to maintain the equipment remain a concern particularly in the case of pyrolysis.

Sustainability WS6 – Safe and Responsible Production (L)

The sustainability of the utilization of the Innovative Approaches to the Sound Management of Chemicals and Chemical Waste (IAMC) Toolkit by current users is likely. The IAMC Toolkit forms a part of and is available through the Inter-Organization Project for Sound Management of Chemicals (IOMC) Toolbox, which was established in 1995 to strengthen cooperation and increase coordination in the field of chemical safety. The IOMC includes the FAO, ILO, UNDP, UN Environment, UNITAR, the OECD, and WHO.

The insertion of IAMC into this larger inter-organisational initiative is likely to sustain and increase the use of the toolkit globally. Nonetheless stakeholders in the field indicated that diagnosis sometimes required specialized technical skills to identify alternatives related to such a large array of chemicals and processes. These risks include reducing the effectiveness of the toolkit in some instances.

Regarding the changes that are taking place in the enterprises, the adopted recommendations have been within the technical and financial reach of the companies for the most part. In most cases, stakeholders reported that they adopted innovations when they came at lower costs and when capital could be recovered within a few months. Stakeholders in Colombia and Peru also reported that accession of these two countries to the OECD was likely to result in higher environmental and worker safety. They also saw these changes as a step to update their technology and remain in business under increasingly competitive market conditions and tougher environmental standards.

Sustainability WS7 – Financing Instruments (L)

UNIDO's choice of partners (the IFC and GIZ) in the development of guidelines for EIPs financing is likely to result in a sound approach. The capacity building activities that are taking place are likely to improve the planning and risk management capacities of participating EIPs.

Sustainability WS8 – Innovative Business Models (ML)

The Project has promoted two promising business models, chemical leasing and industrial symbiosis, that are applicable under specific conditions and some carry risks. The contracting firms engaged in chemical leasing contracts must develop a close relationship and trust. Given the governance and judicial systems in developing and emergent

economies, this represents significant risks should the relationship and agreement deteriorate. To mitigate this risk, the Project has focused in helping contracting companies develop good mechanisms for communication and, most importantly, contracts that are very precise and enforceable under country conditions. Sustainability of industrial symbiosis arrangements also is likely to be sensitive to prices of raw materials, which have proven to be quite volatile in recent years.

5. Project Contributions to Impact and Broader Transformations

Progress to impact is rated as Moderately Satisfactory. While assessing the contributions to long-term transformations, it is important to consider that the Project builds directly on twenty (20) years of support to the NCPs in more than 40 countries by UNIDO and UN Environment to the amount of over USD 100 million, which was largely provided by European donors (Luken *et al.*, 2016). UNIDO RECP related activities also took place through other projects in the Programme, “spin off” projects and projects in other divisions within UNIDO that added to more than USD 500 million. UN Environment also provided support to the NCPs through the Eco-innovation project and other projects. Given these multiple interventions, accomplishments in and advancements of RECP cannot be fully attributed to the Project. However, it is possible to assess the Project’s specific contributions to the conditions leading to the desired long transformation to RECP industries. Yet while the evaluation of other UNIDO projects as well as the UN Environment Eco-innovation project are outside of the scope of this evaluation, an assessment of this project’s contributions must take place in the context of these complementary initiatives.

Project Contributions to the Conditions for Transformation towards Sustainable Industry

The Programme theory of change provides the analytical framework to assess the Project’s contributions to long-term RECP transformations. Table 12 presents the conditions required for the broad adoption of RECP practices to which the Project made contributions. These are the necessary conditions identified in the theory of change that would lead to the transformation to sustainable industrial production. The blue areas in the table refer to the outcomes directly supported by the Project and the green areas refer to the outcomes that were indirectly linked to the Project. The intensity of the colour refers to the extent of the contribution.


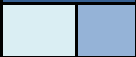
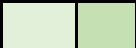
The dark blue areas indicate that the Project made the most contributions to the strengthening of systems to transfer RECP technology, knowledge generation, and awareness-raising. This was done by supporting the testing and adaptation of tools and methods in ways that built on the existing capacities in the NCPs. The Knowledge Management System (KMS) and the support provided by the Project and the UN Environment to the RECPnet have also contributed to these achievements by giving the NCPs access to new RECP tools, concepts and methods, and by facilitating the exchange of information and lessons learned. As indicated, the Project’s contributions to RECP-facilitating financial models and business models have been modest.

Project contributions to policy and regulatory changes have been much less notable, and in most cases, have been indirect results of the Project. As indicated, only WS 3 on EIPs is

explicitly targeting and addressing country policy and regulatory frameworks. However, some NCPCs have supported policymaking processes or the development of policy instruments drawing on lessons from the Project, but without using Project financing. The Confederation of Indian Industry-Green Business Centre (CII-GBC), in India, provides an example of how a relatively modest intervention can contribute to transformations at scale when all the key conditions are met. The tools provided by the RECP Project were adapted, promoted and disseminated by CII-GBC mostly through handbooks and workshops financed with public funds. This was possible because the tools developed by the Project directly contributed to a commitment that the country had made to the United Nations Framework Convention on Climate Change (UNFCCC), which the government considers a high-country policy (see Box 7). In most other cases in which the NCPCs incorporated RECP Project lessons into policy-making processes, the contributions made have been mostly opportunistic and have resulted in modest incremental changes that are insufficient to trigger changes at scale as other key conditions for transformation were not been met.

Table 12: Project Contributions to the Conditions for RECP Transformation						
	Capacity to Transfer RECP Technology	Knowledge Generation	Awareness Raising	Financing Models	Business Models	Policy & Reg. Frameworks
WS1 Network Support	Dark Blue	Light Blue	Light Blue		Light Blue	Light Green
WS2 Knowledge Management	Dark Blue	Dark Blue	Dark Blue	Light Blue	Light Blue	Light Green
WS3 Eco-Industrial Parks	Dark Blue	Dark Blue	Dark Blue		Light Blue	Light Green
WS4 Methods & Tools	Dark Blue	Dark Blue	Dark Blue		Light Blue	Light Green
WS5 Industrial Waste Minimization	Light Blue					
WS6 Safe & Responsible Production	Dark Blue	Dark Blue	Dark Blue		Dark Blue	Light Green
WS7 Financing Instruments	Dark Blue	Dark Blue	Light Blue	Light Blue		
WS8 Innovative Business Models	Dark Blue	Dark Blue	Light Blue		Light Blue	

Note: The intensity of the colour refers to the extent of the contribution.

	The dark blue areas indicate that the Project made the most contributions to the strengthening of systems to transfer RECP technology, knowledge generation, and awareness raising.
	The blue areas refer to the outcomes directly supported by the Project.
	The green areas refer to the outcomes that were indirectly linked to the Project.

Mainstreaming, Replication and Scaling-Up

The information that was available on the activities of the Project did not allow for a systematic assessment of the mechanisms used to achieve broader RECP adoption. Nevertheless, field observations and accounts in some reports indicate that there is considerable **mainstreaming** going on at the enterprise level. During interviews, stakeholders often reported that they were seeking to mainstream RECP recommendations and criteria to the overall management of their enterprise. Mainstreaming also took place in Vietnam, Peru and Colombia, where lessons derived at the enterprise level were adopted and promoted by industry associations, or were incorporated into government regulations.

Replication took place in Vietnam, where technology introduced by WS 5 to improve energy use and reduce waste in the rice sector was replicated in 10 rice mills of the Vietnam Southern Food Corporation - Vinafood II. In Vietnam's coffee sector, two additional pyrolysis plants have been deployed with the support of international donors, and three others were developed by a private firm. The Project also reported that approaches introduced by WS 6 to reduce the use of harmful chemicals were replicated by 29 enterprises in Egypt (12), El Salvador (8), Guatemala (2) and Peru (7).

Scaling-up has taken place in a few instances, most notably in the previously mentioned case of India, where greenhouse gas (GHG) tools were adopted.²⁸ In this case, scaling-up took place by country initiative, not by Project design. The activities supported by the Project are not typically geared towards scaling-up. Even in the case of WS 3 on Eco-Industrial Parks, which targets industrial parks, the focus of interventions is the promotion of RECP at the level of the enterprise, or industrial symbiosis among two specific companies.

Scale and Type of Adoption

Transformational processes require interactions and changes at different scales. One way to assess the contributions to a transformational process is to determine the scale at which changes are taking place, and the type of changes being adopted. Considering the long-term objectives of the Project, the transformation to RECP production can be assessed based on three (3) relevant scales and three (3) types or forms of adoption.

The scales of adoption are:

- 1) the enterprise at which change is taking place;
- 2) the Eco-industrial park; and
- 3) the sector of the national economy.

Relevant types or forms of RECP adoption are:

- 1) a structured and deliberate process for change is on its way with the participation of the key stakeholders,
- 2) changes supportive to RECP have taken place in the normative, legal or regulatory system, and
- 3) behaviour has changed in ways that improve resource use, reduce pollution and improve human safety and well-being.

Table 13 presents an assessment of the scales and types of Project contributions to the process of adoption. The table focuses on the highest contribution in each country per Project workstream from 2012 to 2016. In this table those that scored the highest (a score of 3) in both parameters (scale of impact and type of impact) are the cases in which the Project made the most significant contributions to the transformation to RECP. The highest contribution made by the Project is at the top of the table in row one (1). This contribution took place in India under WS 4, and it referred to the adaptation and dissemination of RECP

²⁸ Before this Project, other program activities have also contributed to significant scaling up. In China for example, drawing on lessons from the earlier programme, the government developed a NCPC system reaching the national, provincial and local levels.

tools to measure and report GHG emissions. As indicated in Box 7 the Project contributed to the adoption of a GHG reporting system in the cement sector across the country, and was also credited with contributing to reductions in GHG emissions in the sector. Following, from row two (2) to row ten (10) of Table 13, are the activities carried out in WS 3 on EIPs and WS 6 on Safe and Responsible Production which contributed to changes of policy and regulations at the national scale in China, Colombia, Peru, South Africa, Vietnam, Costa Rica and Guatemala.

Table 13: Scale and Type of Project Impacts

Country		Scale of Impact				Type of Impact			
		WS 3	WS 4	WS5	WS 6&8	WS3	WS4	WS5	WS 6&8
1	India	2	3			2	3		
2	China	3		1		2		3	
3	Colombia	3		1	3	1		1	2
4	South Africa	3				2			
5	Vietnam	3		1		2		3	
6	Peru	3		1	3	1		3	2
7	Costa Rica	3				2			
8	Guatemala	3			1	2			3
9	Morocco	2				2			1
10	El Salvador				1				3
11	Argentina				1				1
12	Bolivia				1				1
13	Dom. Rep.				1				1
14	Ecuador				1				1
15	Egypt				1				1
16	Jordan				1				1
17	Kenya				1				1
18	Tunisia				1				1
19	Uganda				1				1
20	Cambodia	0				0			

Note: *) Argentina and Kenya, who are not SECO priority countries, were reported to the evaluation as beneficiaries in workstream 6.

Scale of adoption	Type of impact
1. Firm or company	0. No impact
2. Eco Industrial Park	1. Process started
3. Province or sector of national the economy	2. Change in laws, regulations, etc.
	3 Change of behaviour - adoption of RECP

In nine (9) other countries, activities are in their early stages, with activities in companies only commencing in the year 2017. Only in Cambodia there was a significant investment (USD 200,000) by the Project, for which no results are reported. Other achievements not captured by Table 13 include significant accomplishments by the nine (9) top-ranked countries (rows one to nine) in behavioural changes taking place at the enterprise level. As indicated earlier, behavioural change at the scale of the enterprise is expected to reach at least 527 companies that participated in the RECP assessments in 19 countries by the end of

the Project in 2018. In addition, the Project reported that in India the RECP tool set is also used by over 250 enterprises.

Given the record of the Programme²⁹, it is safe to assume that the companies that have been supported by the Project will adopt at least some of the proposed RECP recommendations, which will very likely result in resource efficiency improvements and reduction of waste and pollution. While the Project monitoring and evaluation (M&E) information does not exist to provide a detailed report on the environmental and economic benefits that have taken place; the extent of these benefits is likely to vary according to the size of the company and the type of innovations carried out.

Box 7. Contributions to Impact at Scale - GHG Reductions in the Cement Sector in India

Since 2011, UNIDO has collaborated with the Confederation of Indian Industry - Green Business Centre (CII-GBC) in the adaptation and dissemination of tools and concepts related to RECP. With three (3) small grants from UNIDO (EUR 120,000 in 2011; EUR 143,000 in 2012-2013; and EUR 150,000 in 2016), the Centre customized the tools to fit the need of India enterprises, piloted them and applied them at a larger scale. One of such tools is GHG emissions accounting. CII-GBC has trained over 250 companies in the use of the GHG accounting tools. The tools have been adapted to the cement sector in India as the standard for GHG emissions reporting in the sector. This has led to an increase in cement companies' GHG reporting from 20% in 2011 to 80% in 2016. The centre estimated that the use of these tools has contributed to a 24% GHG reduction in the sector, a considerable reduction as India is the second largest producer of cement in the world. The tool is now in being adapted and tried for application at a large scale in the chemical, engineering, and paper pulp sectors.

As indicated earlier most behavioural and normative changes are resulting in gradual marginal benefits as some important conditions for broader adoption are not present. In summary, firms are adopting innovations that are "low-hanging fruits," which can't be expected to result in dramatic economic and environmental benefits. On the positive side, the Confederation of Indian Industry - Green Business Centre has demonstrated that when all conditions are met, even small interventions can contribute to changes at scale that generate important environmental and economic benefits (Box 7).

6. Gender

Gender is rated as Moderately Unsatisfactory (MU). The Programme and Project design did not address gender issues: No gender indicators were included in the log frame, and annual reporting did not systematically address this factor. Thus, the evaluation did not have access to information to assess the gender dimensions of the Project's outcomes or impact. Most RECP tools do not typically consider gender issues yet. They do only so when the tools address social issues. During country visits the evaluation team found that in the Colombia and Peru there is an appropriate gender balance in the two centres visited and in the

²⁹Luken reported that a survey to 41 NCPCs indicated that "In-plant demonstration of the projects undertaken by the NCPCs and reported to UNIDO and UN EVNRIONMENT show that their expectations were met with regards to the extent of cost-effective measures to reduce energy, water and material consumption. However, the results from in-plant demonstrations over the past 20 years are not easily summarized" (Luken *et al.*, 2016). Field observations carried out during this evaluation concur with this conclusion.

enterprises participating in the Project. Women were well represented in executive, managerial and technical positions. In the EIP project in Vietnam (to which the RECP Project made significant contributions), gender issues are an explicit part of the community level efforts. In this project, women make up half the staff. In the centre, approximately 20% of the technical staff are women. In India and South Africa, the executive, managerial and technical staff of the company is predominantly male. In India, CII-GBC selected a park to benefit from its RECP intervention based on the fact that it is run by women entrepreneurs.

7. M&E implementation and Results-Based Management

Project monitoring is rated Unsatisfactory (U). Recommendation two of the midterm evaluation pointed to the need to reformulate the Project with a country-level impact and greater results orientation. This recommendation suggested setting a level of impact that could be achievable within the existing implementation timeframe, to ensure clear output-oriented planning and reporting. In the other recommendations, a lot of detailed suggestions were given for each of the workstreams. There was no response to any of these from the Project and Programme management.

The evaluation found no evidence of a systematic use of the indicators identified in the original UNIDO - UN Environment 2009 Programme Document, or of a reformulation of indicators and establishment of targets as recommended by the midterm evaluation. The evaluation also found no evidence of systematic and unified monitoring across the Project and the Programme. While work carried out in WS 6 did gather some output data, monitoring data was not collected and stored in ways that would allow a systematic tracking of results across the Project. The annual reports to SECO included information on activities carried out by the different workstreams, but the information on overall performance and results was often anecdotal. The type of information provided and the ways in which the information was presented varies significantly from one report to another, and within reports information varies across the workstreams. The annual report has a section to report on problems encountered. Since the midterm evaluation, this section reported only on the measures taken to address the midterm evaluation recommendations. No newly encountered issues in addition to those identified by the midterm evaluation have been mentioned. The reporting form does not have a section to report on risks.

At the country level, there was no follow-up to assess the extent to which the recipient firms had adopted the recommendations of the RECP assessments in most of the cases encountered. Contracts to NCPCs provided no funds or provisions for follow-up activity beyond the presentation of recommendations to the participating companies. Monitoring of follow-up of resource efficiency and pollution reduction data was assumed a responsibility of the enterprises, not the Project.

Box 8. Results monitoring approach of the SWITCH-Asia Programme

This programme has developed guidelines for a results-monitoring framework for the project. Measuring results achieved by the SWITCH-Asia Programme over 18 countries has been noted as a challenging task, because of the high diversity of projects, contexts and sectors covered by the Programme. In this regard, a newly developed conceptual reporting framework and comprehensive indicator scheme was introduced to aggregate project results into Programme results through a comparable monitoring and reporting process across all SWITCH-Asia grant projects.

The proposed framework comprises of a Sustainable Consumption and Production-based (SCP) conceptual results-based reporting framework and four (4) hierarchical levels of indicators linked to the revised EU Logical Framework, which are outlined as follows:

- Level 1: Contributions to sustainable development (SD);
- Level 2: SCP implementation;
- Level 3: Drivers and enablers of SCP; and
- Level 4: SWITCH-Asia actions

These indicators and reporting framework for all of SWITCH-Asia projects are based on their intervention logic as well as their initial logical frameworks as developed during the contracting period. This is accompanied by a four-level matrix and corresponding cell codes that was designed as a framework of reference for results monitoring. New projects are presently being encouraged to apply the new indicators on a trial basis, while the development of indicators is expected to continue. It is expected that the new indicators will be contractually requested by the contracting agencies for the SWITCH-Asia grants as the basis for their project reporting.

¹ Ledant et al. 2017. Guidelines for a Result Monitoring Framework for SWITCH-Asia.

Source: http://www.switch-asia.eu/fileadmin/user_upload/Events/BKK_Semiar_2017/PPTs/Guidelines_rev_26_05.pdf

While the Project has been very systematic in refining toolkits, it has no reliable way to know to what extent the recommendations resulting from the use of those toolkits are being adopted, or if the recommendations meet intended purposes and under what conditions. In contrast, the Switzerland and Austria funded project “Promoting the adaptation of RECP through the establishment and operation of a cleaner production centre in Ukraine” did put in place a monitoring system that since 2003 has been reporting on a comprehensive set of indicators, referring to resource efficiency and cleaner production outcomes for each enterprise. This has included reporting on options that were recommended, options implemented, environmental benefits derived from the implementation of each option (i.e. reduction in chemical use, reduction in water or energy use, etc.) and monetary savings realized by the enterprises. This project has developed and tested an approach that is applicable to RECP that is highly relevant to the Project and to other UNIDO projects addressing RECP. Another project that has also put in place a monitoring system applicable to RECP is the EU-funded SWITCH-Asia programme, which also aims at promoting sustainable consumption and production (SCP) in Asia (See Box 8).

In summary, the evaluation did not find any evidence of a results-based management system in place, whereby the Project management made decisions and corrective actions based on analysis from a monitoring and evaluation system and based on the results achieved. It is not clear whether systematic information on Project performance and results have been presented to the Project Steering Committee (PSC) to enable decisions and corrective actions, or whether the Project management and the PSC regularly asked for performance and results information.

8. Project Management

Project management is rated as Moderately Unsatisfactory. The midterm evaluation reported the Project had a slow start, slow administrative procedures and delays in responding to stakeholder request, all of which ultimately resulted in two extensions of a total of two years. Unlike the midterm evaluation, this final evaluation encounters few complaints from Project stakeholders related to the management and administration of the Project.³⁰ The midterm evaluation recommended (recommendation 7) a direct appointment of an overall manager for the Programme within UNIDO. This has been effectuated, with more clear distribution of workstreams among staff. But the current management structure of the Project has become fragmented, as it is divided among six (6) different project managers in two different UNIDO departments³¹. This has been a factor contributing to the low integration among Project workstreams.

This evaluation found no evidence of formal mechanisms or systematic coordination between the managers implementing the different workstreams of the Project. When workstreams were coordinated, they were mainly under the management of one person. UNIDO and UN Environment coordinate their support to the RECPnet, in most cases, when regional and global meetings take place. Nor did the evaluation find mechanisms that would facilitate the systematic coordination during country identification and Project implementation. These are factors that contributed to a parallel implementation of Project activities, and that limited the extent of integration.

Some stakeholders reported to the evaluation team that implementing SECO-funded projects have taken much more time and resources of UNIDO staff because of 'artisanal' or 'boutique' implementation style where more customized care need to be taken into account (e.g. reporting and administrative requirements, frequent consultation with the donor, selection of individual experts, etc.), especially in comparison with the more 'industrial' implementation style of GEF-funded projects where subcontracting to executing institutions is a frequent practice. The evaluation team looked into this concern by comparing the administrative requirements of SECO-funded projects with those of other donors. The evaluation analysis included 78 projects financed by several donors, but the results of this analysis were not conclusive.³²

Overall the Project's performance is rated in the table below.

³⁰ The most noticeable complaint was from Indonesia where the UNIDO Project and Programme activities are greatly delayed.

³¹ During initial years of project implementation SECO requested that funds from the project be made available to other projects. A total 2.5 million dollars of the project were allocated to eight (8) other projects managed by 5 different managers.

³² While the analysis controlled for the differences in the grants amounts, given the time and resources allocated to the evaluation it is not possible control for other important project characteristics. It is possible that an assessment that controls for additional factors can shed some light on this issue. This is in line with the recommendation of the recent Thematic Evaluation of UNIDO's Partnerships with Donors, which points to the need for UNIDO to review and reform the cost structure for managing funding partnerships. This will include realistic assessment of direct project costs; altering cost recovery structures and systems and minimizing cross-subsidization of non-members. It will be important to ensure adequate financial and human resources at UNIDO.

Table 14: Project's Performance Rating

#	<u>Evaluation criteria</u>	<u>Rating</u>
A	Progress to impact	Moderately Satisfactory
B	Project design	Unsatisfactory
1	• Overall design	Unsatisfactory
2	• Logframe	Moderately Satisfactory
C	Project performance	Moderately Satisfactory
1	• Relevance	Satisfactory
2	• Effectiveness	Satisfactory
3	• Efficiency	Moderately Satisfactory
4	• Sustainability of benefits	Moderately Likely
D	Cross-cutting performance criteria	
1	• Gender mainstreaming	Unsatisfactory
2	• M&E: ✓ M&E design ✓ M&E implementation	Unsatisfactory
3	• Project management	Moderately Unsatisfactory
E	Performance of partners	
1	• UNIDO	Moderately Unsatisfactory
2	• National counterparts	Satisfactory
3	• Donor	Moderately Satisfactory
F	Overall Project achievement	Moderately Satisfactory

IV. FACTORS AFFECTING PROJECT AND PROGRAMME RESULTS

The most important weaknesses of the Project are the insufficient integration of project activities and the insufficient attention to policy and regulatory frameworks. These two factors are particularly critical considering the long term transformational nature of the Project. Despite its significant accomplishments the Project has mostly remained a collection of interventions that resulted in multiple isolated RECP success stories, which are not integrated in mutually supportive ways or that contribute to a broader transformation. The Project has only indirectly contributed to the development of policy and regulatory frameworks for RECP. As this project was the first one developed under the RECP Global Programme and multiple “spin off” projects, there is a risk that other subsequent projects have followed a similar path, and may also lack the necessary integration to significantly contribute to the transformation to cleaner industrial production.

Insufficient Guidance for Project Integration During Design

The Programme document presented a sound analysis of the root causes and the factors affecting the transition to sustainable industries. The Project’s logframe also included many elements that would contribute to the transformation to sustainable industries; but the implementation approach was complicated, with twenty-four (24) proposed activities, most of which ran in parallel and were not clearly integrated. The Programme document also lacked an explicit theory of change defining specific conditions for the desired transformation that the Programme should target. While the Programme document acknowledges the importance of multi-level interventions and specifically mentions the important role played by policy and regulations, it does not provide clear strategy or mechanisms to ensure the broader adoption of the changes proposed. Thus, despite an excellent diagnosis of the problem and the adoption of a comprehensive approach, the Programme document does not provide clear guidance to identify and design integrated projects. The RECP Project document followed a similar approach. The Project identified eight (8) workstreams, but it did not indicate how these workstreams would be integrated to contribute to the conditions necessary to reach the long-term transformational objectives of the Programme.

Insufficient Attention to Policy and Regulatory Frameworks

In its publication UNIDO Green Industry, UNIDO indicated that :“The overall policy framework of a country has an important influence on the greening of industries, as it provides the environment through which industrial changes can take place” (UNIDO 2011). This publication also proposed a broad range of policy instruments to promote sustainable industries. Despite this emphasis on policy, the direct contributions of the Project to policy and institutional reforms have been few. This is partly because the UN Environment Eco-innovation project was tasked to address policy issues by programme design. However, the policy component of the eco-innovation project only reached two countries (Colombia and Peru) that also received funds from this Project. Except for the work carried out in the context of workstream 3 related to the EIPs, most of the contributions to policy and institutional reforms by the NCPCs were not as part of their contractual commitments with the Project.

Box 9. Examples of Support Provided by NCPCs to Policymaking Processes

- Analysed policy and legislative gaps,
- Roundtables to present and discuss policy options with the help of international experts
- Coordination of policy working groups with the participation of different stakeholders,
- Training and capacity development of government staff responsible for developing or implementing policies,
- Assistance in development and implementation of government outreach programmes to enterprise,
- Technical assistance in the drafting of regulations or standards
- Support in awareness raising campaigns

Yet 19 centres in the RECPnet have demonstrated capacities to support policy processes. Eight (8) of these centres were housed in institutions that had the access to and mandate to contribute to policy (such as those centres housed in government agencies or in industry associations). Ten (10) centres, all of them CSOs, located in Latin America and the Caribbean (most notably in Colombia, Peru, Guatemala and El Salvador), were in many countries where there is a history of civil society organization (CSO) engagement in policy-making processes. One centre in Ukraine got support from a UNIDO project funded by Austria and Switzerland to support RECP related policies. In most cases these contributions focused in giving regulatory agencies access to technical experts, supporting consultation and outreach processes and development of policy studies (see Box 9). The UN ENVIRONMENT Eco-innovation project also supported the centres in Peru and Colombia to engage in policy and regulatory processes. This illustrates the potential synergistic effects of improved coordination between UNIDO and UN ENVIRONMENT. Moreover, there is evidence that several NCPCs had developed the capacities to support policy processes by the time the Programme was designed. The 2008 evaluation of the UNIDO-UNEP Cleaner Production Programme indicated that, on average, the centres dedicated 70% of their efforts to core cleaner production services and that one third of the centres reported that they had been instrumental in policies and legislation conducive to CP (Luken et al. 2016; UNIDO 1998; Van Berkel 2010).

Since the Project was approved in 2012, UNIDO has put in place a quality of entry review process of projects which includes an assessment of the contributions projects can make to policy and institutional reforms. This is an important step for UNIDO that will significantly contribute to the scaling-up of results, and will help identify opportunities to apply the practical knowledge developed through the application of RECP tools and methods to policy instruments such as regulations, standards, and action plans, to increase contributions to capacity-building in the public sector.

Choice of Scale-up Mechanisms

One of the purposes of the Programme was to scale up RECP. The Project document presents scaling-up as a prominent feature of the workstreams that took the lion's share of the budget. These are WS3 on Eco-Industrial Parks, WS5 on Industrial Waste Minimization, and WS 6 on Innovative Chemical Solutions. Yet the scale-up has been modest, as it has consisted mainly in replication of activities that continue to target the same scale – which is the enterprise. While the Project does include activities in WS 3 to strengthen capacities at

the park level, much of the support provided continues to focus on the introduction of RECP methodology at the level of the enterprise and in the identification of industrial synergies (which typically would involve two or more enterprises). This work will continue to contribute to the refinement and adaptation of UNIDO's toolkits and methodologies to new situations; but unless the Programme gives more attention to the mechanisms for scale-up and broader adoption, improvements will continue to be slow.

Weak Project and Programme Coordination

A concern raised by the 2008 independent evaluation of the UNIDO-UNEP Cleaner Production Programme and the 2015 midterm evaluation was the need for better coordination between the workstreams, between the different departments within UNIDO and between UNIDO and UN Environment. The Programme document correctly identified programme coordination as a key issue during implementation. But instead of building UNIDO's institutional mechanisms of supervision and reporting, the Programme document introduced a set of mechanisms dedicated exclusively for the Programme, some of which were onerous and difficult to implement.

The 2015 Independent Midterm Evaluation (recommendation 7) also pointed out the need to improve overall coordination. Yet coordination remained an issue throughout the Project. In four (4) years the Project and Programme went through four (4) changes in management. Currently management is divided among 6 different Project managers in two (2) different UNIDO departments. Coordination and knowledge exchange among workstreams and Project managers mostly take place through informal means, such as personal communications and the NCPCs. The evaluation found no evidence of formal mechanisms or systematic coordination between the managers implementing the different workstreams of the Project, or with managers of other RECP-related projects. UNIDO and UN Environment most often coordinate their support to the RECPnet when regional and global meetings take place.

The lack of coordination and absence of mechanisms to facilitate learning and information-sharing on RECP has implications for UNIDO's potential as an organization to go beyond the SECO-funded project. As indicated earlier, from 2012 to 2017 UNIDO gradually approved 16 additional projects under the Programme for over USD 23 million, 8 "spin off" projects worth over USD 61 million, and 12 projects that include RECP components or tools that were worth over USD 400 million. Not only does UNIDO have high financial stakes on RECP, but RECP tools and the NCPCs are also critical instruments for UNIDO's mission of promoting sustainable and cleaner production industries.

Institutional Culture

Some aspects of UNIDO's institutional culture have also contributed to the lack of integration and to the low interaction among workstreams, projects and programs. Creasy and Anantatmula (2013) report that organization incentives play an important role in determining individual or team-base behaviour.

In the case of UNIDO, organizational incentives seem to have inadvertently contributed to insularity and lack of integration. Staff reported that there is a strong emphasis on rewarding those who manage projects with larger budgets, with less importance given to

aspects such as learning and interaction across projects or programmes. Staff also identified a strong culture of delegation of responsibility to project managers – who typically, with the support of a team of consultants, handle most aspects of a project, from donor relations and resource mobilisation to project planning, supervision, procurement and monitoring. Most project managers are responsible for several projects (5 to 10), resulting in a highly demanding work environment that requires individuals to be self-starters and highly entrepreneurial.

Another condition that fosters innovation is the level of “organization project management maturity,” which refers to the extent to which the organization has adopted practices and systems to benchmark and improve project performance (Creasy and Anantatmula 2013). In the case of international development organizations, such practices include clear procedures for project preparation, supervision and reporting, quality assurance committee, risk management systems and results-based management (RBM) and M&E systems. While staff reported that in recent years UNIDO has made important improvements in project preparation, some stakeholders also believe that aspects related to implementation, supervision, reporting, M&E, and RBM in general remain weak.

In UNIDO, quality control, reporting and supervision and risk-tracking procedures are not always clearly defined, or when defined do not seem to inspire strong adherence. For example, the evaluation found no evidence of a Steering Committee for the Project, nor evidence of any regular reviews that tracked and assessed project risks, nor evidence of a systematic project level Monitoring and Evaluation mechanism. Similarly, there seems to be little distinction made between project implementation and project execution functions, which increases the burden on the project managers and weakens oversight and accountability. These conditions have contributed to a highly individualistic and somewhat insular project management culture, in which there are few incentives for interaction and learning across projects and programmes. Such limitations constrain the Organization’s abilities to contribute to transformational process. Weak supervision leaves the project managers to cope with all aspects of the project, while the overlap of implementation and execution functions can result in a system almost devoid of implementation oversight, and facing considerable organizational risks.

UNIDO’s Technical Orientation

UNIDO’s strong technical capacities and orientation, also a cultural trade of the organization, have been key factors in its valuable contributions to RECP tools and methods and capacities in developing countries. These were clear advantages in the early stages of the Programme when the priority was to develop procedures to carry out RECP assessments that would result in technically sound recommendations to enterprises. Moving into the next phase, in transformational projects, which are more complex, additional management skills are needed. Research indicates that effective change managers typically combine a mix of technical and soft skills that include skills in communication and conflict management styles, attitudes open to change and flexible personalities (McCroskey 1977; Robbins 1979; Kanter 1983; Sense 2007).

The Critical Role of the National Cleaner Production Centres (NCPC)

Since its beginning in 1994, the Programme has promoted the NCPCs as a means of developing permanent local capacities to provide cleaner production services. In 2010, capacities in resource efficiency were also added. This is a high achievement area of the Programme. The evaluation team carried out a quick assessment of the NCPC's capacities by reviewing the centre's websites, NCPC's reports and documents produced by the Programme (See Table 15). The results indicate that nearly all 63 centres of the RECPnet provide services on aspects related to three conditions in the theory of change (TOC) leading to the transformation to sustainable industries: technology transfer (audits and assessments), awareness-raising, and knowledge generation and dissemination. A smaller number of centres have developed capacities or offer services related to financial models (3), business models (14), and policy and regulations (19).

Differentiation regarding the extent to which centres support policy and regulatory frameworks started over a decade ago, and have become more pronounced over time (Luken *et al.*, 2016; Van Berkel, 2010). Particularly noteworthy is the finding that 19 centres have been engaged in policy-making over the years.

Table 15: Contribution of RECPnet Members to the Precondition for Transformation

		Number of RECPnet Members actively contributing to each of the preconditions for transformation as outlined in the Theory of Change					
Region	Total Number of Members	System to Test and Transfer Technology (Including Support Services)	Knowledge Generation & Dissemination	Awareness Raising of RECP Among Stakeholders	Financial Model	Business Model	Support to Policy & Regulatory Framework
Africa ¹	10	9	9	10	0	1	1
Arab	6	6	5	5	1	1	0
Asia & Pacific	13	13	13	13	0	1	5
EECCA ²	19	19	18	16	0	6	3
Latin America & the Caribbean	14	13	14	14	2	5	10
Total Across the RECPnet	62	60	59	58	3	14	19

Source: Evaluation Team assessment.

Note: ¹ This excludes the Namibia National Cleaner Production and Sustainable Consumption Centre for which no determination could have been made on the contributions to the preconditions for transformation in the TOC.

² EECCA Region represents the Eastern Europe, Caucasus and Central Asia block of countries.

In addition to supporting technical capacities of the NCPCs, the Programme also gave considerable attention to the long-term sustainability of the centres. By 2014, only 4 out of

the 50 centres initiated with Programme support from 1994 to 2011 were no longer active (Luken *et al.*, 2016). A review of the five (5) centres and RECPnet members carried out during the field work for this evaluation indicated overall sustainability in satisfactory range and low risks concerning the centres' technical competency, reputation, demand for services, and income stability and diversification. Only in one case (Peru) was there some indication of risk resulting from a transition in the organization's management (see table below).

Table 16: Sustainability Assessment of Cleaner Production Centres & RECPnet Members Visited by the Evaluation Team

Centre name	National Cleaner Production Centre	National Cleaner Production Centre	Gujarat Cleaner Production Centre	Confederation of Indian Industry - Green Business Centre	National Cleaner Production Centre
Country	Colombia	Peru	India	India	South Africa
Income Stability	Green	Yellow	Yellow	Green	Green
Income diversification	Green	Yellow	Yellow	Green	Green
Technical Capacity	Green	Yellow	Green	Green	Green
Centre Reputation/ Credibility	Green	Green	Green	Green	Green
Competition: Existence of other RECP services	Green	Green	Green	Green	Green
Policy	Green	Green	Green	Green	Green
Demand	Green	Green	Green	Green	Green
Overall Sustainability	Highly Satisfactory	Moderately Satisfactory	Satisfactory	Highly Satisfactory	Highly Satisfactory

Source: Evaluation Team assessment

Note:

Low Risk	Moderate Risk	High Risk
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The NCPs have also helped to mitigate the low integration and coordination of Project and Programme activities. In Colombia and Peru, the centres were found to have derived synergies in their collaboration between UNIDO and UN Environment. Contracts with UN Environment related to policy-making processes provided an opportunity to include knowledge generated from UNIDO's collaborations. Similarly, 32 of the 36 UNIDO projects that address RECP issues report that they implement country activities through NCPs, or significantly depend on the centres to execute their operations. Ten of the twelve programme managers responsible for RECP-related projects in UNIDO also consider that the NCPs or the RECPnet play an important role in the learning, coordination and integration of activities across projects

Yet the Project has not taken full advantage of the potential coordination function and capacities in policy-making developed by the centres. Until now, the flow of knowledge has

been from the Programme to the centres. To accomplish this, UNIDO drew extensively on the know-how of Northern, developed countries. This was appropriate and necessary, given that the centres from the North had the relevant technical capacities and knowledge on the topic. (Centres from the northern countries have typically participated in the Programme as associate members of the RECPnet). However, over the years, many of the developing country centres have strengthened their capacities in RECP and have become trusted resources, now used by departments across UNIDO and UN Environment.

As indicated earlier, about a third of the NCPCs-developing countries in the RECPnet have developed capacities on policy and regulatory processes, a complex endeavour for which associate members are not well suited. None of the Associate Members in the RECPnet claim capacities in policy or institutional reform³³. Nor are the technical experts of these centres well suited to operate under such diverse cultural and institutional contexts.

Another important factor to consider is that while one third of the NCPCs have policy-making experience, nearly two-thirds of the NCPCs lack this experience. Even fewer NCPCs have experience in business and financial models. This underlines the need for UNIDO to expand its focus from its traditional emphasis on technical dimensions of RECP to the development of NCPC's capacities for supporting policy-making and policy implementation. Given these capacity gaps, the role of the mature NCPCs will be critical if the Programme is to make meaningful contributions to policy, regulatory and institutional frameworks going forward, which is a key condition for the Programme to make transformational changes leading to resource efficient and cleaner production industries.

NCPCs as In-Country Multipliers and Decentralized RECP Services

The role of the mature NCPCs will also be critical in the expansion of Programme achievements. The use of the centres as multipliers and service providers to enterprises has been a central strategy of the Programme since its inception in 1994. However, as previously indicated, the Programme design mostly drew on the centres to test and adapt tools, generate knowledge and raise awareness on RECP. Many centres have developed a nuanced and keen understanding of the challenges in the application of RECP in developing countries. The larger countries like China, India and Indonesia have led the way in the establishment of nodes or additional centres in their countries. Luken *et al* (2016) reported that China had established thirty-five (35) centres in 2014, across the country and across three layers of government (local, provincial and national), with each layer having different responsibilities. The NCPC in India decentralized its operations in 2009 by opening regional centres in five (5) states, four of which still operate. More recently, the Project named centres of excellence in Colombia, South Africa, Peru, and Costa Rica with regards to WS 6 (Safe and Responsible Production) to help build capacities of centres across the region and to establish new centres. This initiative is moving in the right direction, but needs to be operationalized with budget support.

The incorporation of developing country NCPCs as high-level partners in the Programme will have its challenges. One challenge is related to the diversity among the centres and

³³ A review of the RECPnet members' websites indicates that none of the Associate Members claim capacity in policy and institutional reforms. Most of them claim capacities that are highly technical.

countries, and their related conditions. Solutions will have to be developed on a case-by-case basis. Success in one country, such as in the establishment of China's NCPC system across the different levels of Government, will be of little relevance in other regions – such as the LAC, where most of the centres are being housed in civil society organizations (CSOs). The timing, conditions and mechanisms for decentralization will likely vary from country to country. For example, in Peru, there is a scarcity of skilled support for RECP; but the NCPC has good working relations with academic institutions, which could be used to support the training of highly qualified RECP professionals. Given the diversity of country conditions, the Programme would do best by allowing the need and forms of decentralization to emerge.

There is also the need to foster NCPC incentives to build RECP capacities of other organizations. For many centres, the quest for sustainability is underlined by a market-oriented entrepreneurial culture that responds to demand, be it in the form of donations or in the form contract with donors, corporations or governments. Consequently, the centres give priority to services that are likely to contribute to their financial stability over other services, such as those that contribute to the public good (Van Berkel, 2010). For centres housed in CSOs, their sustainability is closely related to the sale of services to their markets. Plainly stated, for these centres, the promotion of alternative RECP service providers is likely to be perceived as competition for their services.

Another factor constraining collaboration with the centres has been UNIDO's procurement requirements. To facilitate collaboration with the centres, UNIDO established in 2013 a procedure to certify them as 'partner organizations'; the process is so onerous, however, that no centre has applied. UNIDO is currently testing a web-based Enterprise Resource Planning that allows partner organizations controlled access to UNIDO's procurement system. Currently being tested in China, the system will allow centres to hire local consultants and carry out other procurement functions using UNIDO's system, under the supervision of headquarters' staff. The system is expected to open more opportunities for collaboration, and to improve efficiency and significantly reduce project manager's burden at headquarters.

The Role of the RECP Network

UNIDO has recognized networks as an important means for developing countries to exchange knowledge, and to speed up their economic development. It has noted that by working through an integrated and networked approach, multilateral stakeholders, national and local governments and private entities are better equipped to approach development processes in a more effective, inclusive and transparent way. UNIDO has applied this approach to developing and maintaining numerous networks, centres, forums, and platforms.

The RECPnet is one such network, with potentially high long-term value for the promotion of the Organization. Yet to ensure its added value, its development must take place in close interaction with other UNIDO-supported networks and platforms that have overlapping objectives and membership, such as Climate and Technology Centre & Network, Global Network on Sustainable Energy Centres and Partnership for Action on Green Economy. And

if the RECPnet is to play a significant role in the RECP process, the shape and forms of support provided through the network should be allowed to emerge based on the preferences and expressed needs of the centres. The thematic working groups promoted recently by the Project as part of the KMS moved in this direction, but the initiative was ultimately not successful, as some in the network perceived it as an unfunded mandate by UNIDO. UN Environment and UNIDO must find ways to support initiatives of the centres without taking over their management.

V. LESSONS LEARNED

Programmes pertaining to complex processes need to adopt integrated approaches that address the conditions necessary to reach desired transformations. To do this, the programmes must develop explicit theories of change that can guide the design and implementation of subsidiary projects. The theories of change must identify the transformation desired, the conditions required to achieve them, the mechanisms needed to support the broader adoption that will lead to the desired transformation and critical assumptions made in the process.

Efforts to bring about transformations at scale require close attention to policy and regulatory reforms, in addition to contributions to innovative technology, knowledge generation and awareness-raising.

North-South technical cooperation is often a necessary initial ingredient of transformational projects when the relevant know-how pertaining to transformations has been generated in the North. As Southern organizations gain experience in applying innovations to specific contexts of the developing world, South-South cooperation becomes a more effective capacity building strategy.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

Building on the achievements of the 1994-2009 UNIDO-UNEP Cleaner Production Programme, the Project made important contributions to the promotion and expansion of RECP in developing countries by working with enterprises in several countries to further refine methodological tools and supporting the RECP Network as resources to continue strengthening NCPCs around the world. The Project also introduced, with different degrees of success, new technologies (such as Pyrolysis) and business models (chemical leasing and industrial symbiosis).

In the process, the project helped hundreds of enterprises in developing countries to become more efficient and to reduce levels of pollution. The economic and environmental benefits generated by the project at the enterprise level are likely to be sustainable. In most cases they consisted in eco-efficiencies that reduced costs of production or required investments with short capital recovery periods. Other time changes were perceived by beneficiaries as assets to develop client loyalty and to improve their capacity to meet regulations and compete in broader markets. Under the current situation, the sustainability

of the RECP Network and the RECP web based knowledge management system supported by the project is less likely. In both cases a key factor affecting sustainability is the low ownership and engagement of RECP network members. Yet these are conditions that the Project and the RECP network members can address in the remaining time before the Project completion.

An important development is that since around the time the Project started, there has been an important expansion of UNIDO project portfolio that addresses or is in some way operationally linked to the work carried out by the Project, reaching over USD 580 million. This underlines the importance of the services that the Project provides to other UNIDO operations through the development of tools, testing of new business models, support of the NCPC through the RECPnet and the knowledge management system.

The contributions of the Project to a broader adoption of RECP and to sustainable industrial production were modest. This is so because the Project did not give sufficient attention to all the key conditions necessary for broader adoption of RECP. The umbrella Global RECP Programme under which the Project was designed had a sound diagnosis of the problems and identified the key root causes for resource inefficiency and pollution. Yet Programme and Project design and implementation only partially addressed those root causes and no provisions were made to ensure the integration of the different Project components.

While the Project did make important contributions to the development of capacities for RECP technology transfer, knowledge and information and awareness raising; it gave much less attention to financial and business models and to policy and regulatory frameworks. The insufficient attention to policy and regulatory factors was particularly important as these are key to provide incentives for adoption and can set the stage for the emergence of new financial and business models. Also, for the most part the Project did not include strategies that would catalyse the broader adoption of the approaches introduced or changes at scales broader than the enterprise. The Project's workstream on eco-industrial parks is addressing some of these issues but most of its focus remains at the level of the enterprise providing only limited support to factors affecting the scale of the industrial park. The mature NCPCs have been so far, the most effective mechanism for broader adoption in the Project. Thus, while the capacity among the NCPCs varies, the more mature NCPCs have emerged as important multipliers of RECP, often independent from UNIDO's support.

The lack of integration of Programme and Project components during design could have been overcome during implementation with the establishment of effective coordinating mechanisms. But none of such mechanisms were established and the Programme and Project remain a series of isolated interventions. Also despite the potential contributions of the Programme and Project and learning opportunities with other UNIDO operations, RECP interventions across UNIDO remained insular. Again, it is the NCPCs who are filling in the coordination gap by seeking to integrate the support UNIDO provides at the country level.

Broader institutional factors also contribute to the weak coordination and integration of project activities. Stakeholders have indicated that most aspects of operations in UNIDO are delegated to project managers with little systematic oversight. A factor which further contributes to a culture of insularity. Weak M&E and risk tracking and management also constrain learning and adaptive management during project implementation. The preference for technical skills during the selection of project managers, without sufficient

consideration of other skills needed manage complex projects, is another factor that contributes to operations that tend to gravitate towards technical issues while not giving sufficient attention to policy and other contextual issues.

B. Recommendations

1. Recommendations for the current Project

UNIDO and SECO would require the RECP Project to immediately put in place a results-based management system, with a monitoring database that would include: the name of the enterprises supported, the dates when the support or interventions took place, the type of support provided, the recommendations presented to the firms, the recommendations the firms indicated they would be executing, the recommendations actually implemented by the enterprises and the environmental, social and economic benefits derived from each intervention. The monitoring model developed for the project “Promoting the adaptation of RECP through the establishment and operation of a cleaner production centre in Ukraine” presents an excellent starting point; it could be modified and applied to the other workstreams in the Project, and other UNIDO projects related to RECP.

UNIDO, UN Environment and the NCPCs belonging to the RECPnet should come to an agreement within the next six (6) months on a realignment of their roles and responsibilities. Two issues that must be addressed are: 1) how to develop more network ownership among the members, including how to shift decision-making from UNIDO and UN Environment to the RECPnet members; and 2) the development of an operational modality that makes greater use of the institutional resources of NCPCs in sustaining the network as a whole.

UNIDO should develop and start implementing a strategy to ensure the sustainability of the RECP KMS within the next six months. This strategy should address the need to establish a flexible platform that meets the needs of the system, and the necessary financial and technical support to ensure its maintenance.

2. Recommendations for future operations and to address broader institutional issues

UNIDO should put in place a coherent and systematic process to provide oversight and foster integration among projects and activities in the RECP Programme. This process should build on and strengthen UNIDO’s current supervision system, and should cover all projects designed under the RECP Programme and “spin off” projects. It should also be based on a results-based management system that tracks the extent and forms by which projects under the Programme are integrated and contribute to conditions needed for the broader adoption of RECP, as well as replications and scaling-up of activities.

UNIDO and SECO should consider focusing their follow-up project on eco-industrial parks. The project should continue supporting demonstration activities at the level of the enterprise, but to bring about broader transformations, it is also critical for the project to support activities that target conditions at the park level as well as sectoral policies and regulations that will ensure effective EIP management.

UNIDO and SECO should require programmes to address complex processes and develop explicit theories of change to guide the design and implementation of subsidiary projects.

These theories must identify the transformation desired or long-term objective, the necessary conditions to achieve it, and the mechanisms that need to be put in place to support the broader adoption and spread of the necessary changes. The theories of change should also make explicit key assumptions and risks.

UNIDO and SECO should require that subsidiary projects to a programme develop theories of change that explain how these projects will contribute to the conditions necessary to bring about the intended transformations. When projects only partially address the conditions needed to achieve transformations, they should be required to indicate how the projects will interface with other processes or projects that address the missing conditions. This measure should be applied in the follow-up phase of the RECP Global Programme that is presently under preparation.

UNIDO should develop and implement a strategy to strengthen its capacities in policy, regulatory and institutional reforms. Building on its current quality-review process at project entry, UNIDO should continue to identify and address factors preventing policy and regulatory support by projects. UNIDO should also draw more on mature developing country NCPCs as the primary source of technical assistance for RECP, and give more prominence to policy and regulations in its projects and in capacity building NCPCs. When relevant, UNIDO should also consider developing new country partnerships with institutions that have capacities in policy.

UNIDO should ensure that its institutional supervision systems are robust, and that they guarantee the proper oversight, coordination, tracking and integration of global programmes and individual projects. Separate governance and reporting mechanisms for specific programmes should only be considered when existing oversight and coordinating mechanisms are insufficient. UNIDO should also ensure that project implementation and execution functions are clearly distinguished, and that systematic identification, tracking and reporting of project risk take place in a rigorous and timely manner. This measure should be applied in the follow-up phase of project currently under preparation.

UNIDO should put in place quality-control systems to ensure that all new programmes and projects include a practical and sufficiently budgeted monitoring plan during the design phase, and that the plan is executed during implementation. Such a plan should indicate how the programme inputs and outputs would be tracked (i.e. what kind of support is provided and in what quantities, to whom it is provided, at which point in time, and for what purpose), the results of activities, the project's contributions to the conditions leading to long-term objectives (as defined by the TOC), and the project risks. The monitoring plan should be properly funded, and project activities should include follow-up to assess the results of project interventions. This particular measure should be applied to the follow-up phase of the RECP Programme, to ensure that projects keep track of the extent to which RECP recommendations are adopted by enterprises, and to assess their effectiveness.

UNIDO and SECO should include an impact evaluation of the current project in the follow-up project that is now being developed. The main objective of this evaluation should be assessment of the environmental, economic and social benefits generated by interventions implemented. At the scale of the firm, the evaluation should compare baseline conditions documented during the RECP audits with changes found after implementation of RECP recommendations. This evaluation would also include the analysis of factors that have

prevented enterprises from adopting recommendations. This information should be used to adjust future projects to more precisely target project interventions. The impact evaluation should also assess project contributions to the necessary conditions for transformation to sustainable industries. The impact evaluation should take place within the three to four years following the closure of this Project, and should be budgeted as a separate activity, in addition to project's M&E budget.

ANNEXES:

Annex 1: RECP Programme Framework

The following is the full logical framework of the global RECP Programme. Taking into consideration that the present SECO funding for the RECP Programme is limited to selected outputs, in the presentation of the logframe the most relevant elements for the Swiss contribution are highlighted in bold.

Narrative Summary	Indicators	Means of Verification	Assumptions
Objective			
<p>Programme objective:</p> <p>To improve resource productivity and environmental performance of businesses and other organizations and thereby contribute to sustainable industrial development and sustainable production and consumption in particular at the national levels in the participating countries</p>	<p>Aspects:</p> <ol style="list-style-type: none"> 1. <i>Environment:</i> reduced environmental footprint ⁽³⁴⁾ of the business sector 2. <i>Production Efficiency:</i> increased resource productivity ⁽³⁵⁾ and reduced operational and/or compliance costs of the business sector 3. <i>Policy and institutional:</i> conducive policies and regulations implemented and enforced and RECP promoted by strong custodian at the national level 	<ul style="list-style-type: none"> • Programme evaluation (mid-term and final) • Aggregated results from thematic reviews (activities 2.1.1, 2.2.1 and 2.3.1) • Aggregated results from supportive projects, including national and/or regional projects (in particular under activity 1.2.2) and thematic projects (in particular under activities 2.1.2, 2.2.2, and 2.3.2) 	

³⁴ Environmental footprint is used as a shorthand for the total of the impacts of a business or other organization on its surrounding environment, in particular through its discharges of waste and emissions; noise, odour, radiation and/or other nuisance factors; and impact on the quality of local ecosystems (through e.g. extraction of water and harvesting or extracting of other natural resources). The total of environmental impacts of a business can in principle be expressed with a proxy, aggregated environmental pressure indicator such as ecological footprint. Improvements in the environmental performance of the business over time are best expressed as units of value creation or productive output per unit of environmental impact, e.g. MVA/ton waste, or units of product/ton SO₂-emitted.

³⁵ Resource productivity is concerned with the productive use of natural resources by the business or other organization as measured in the ratio of value creation or productive output per unit of resource consumption (including water, energy and materials), e.g. MVA/energy (USD/MJ) or MVA/water (USD/GL).

Narrative Summary	Indicators	Means of Verification	Assumptions
	<p>4. Finance: opportunities for financing RECP investments established and are being utilized</p> <p>5. <i>Technology</i>: enhanced assimilative capacity for ESTs and sustainable products</p>		
Outcome (Overarching)			
<p>RECP concepts, methods, practices and policies implemented by enterprises, governments, finance and business Services providers and other stakeholders in particular in the participating countries</p>	<p>1. RECP activities of enterprises</p> <p>2. RECP activities of government</p> <p>3. RECP initiatives of providers of business services and finance</p> <p>4. RECP initiatives of other stakeholders</p>	<ul style="list-style-type: none"> • Programme evaluation (mid-term and final) • Annual reports of enterprises, government agencies, business Services and finance providers and other stakeholders 	<ul style="list-style-type: none"> • RECP is beneficial for host countries and enterprises, governments and other stakeholders can appropriate tangible and measurable benefits from RECP implementation (<i>'win-win'</i> premise)
Outcomes (Contributing)			
<p><u>Outcome 1:</u></p> <p>RECP Services Delivery Network:</p> <p>RECP services delivery capacity enhanced through NCPCs/NCPPs and other RECP services delivery mechanisms</p>	<p>1.1. Recognition of RECP Services Providers by private and public sectors and civil society (RECP service provider is a partner of choice for national stakeholders)</p>	<ul style="list-style-type: none"> • Programme evaluation (mid-term and final) • Annual reports of RECP Services Providers participating the network • Management system certification for RECP Services Providers (optional) 	<ul style="list-style-type: none"> • Impact of RECP Services Providers (including NCPCs/NCPPs) is constrained by perceptions of limited relevance compared to other national initiatives

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><u>Outcome 2:</u></p> <p>Thematic RECP Applications:</p> <p>RECP implemented by enterprises and environment, resource use and economic benefits accomplished by enterprises have been verified</p>	<p>2.1. Reduced environmental footprint of enterprises</p> <p>2.2. Increased resource productivity of enterprises</p> <p>2.3. Reduced operational and compliance costs of enterprises</p>	<ul style="list-style-type: none"> • Environment, financial and/or sustainability reports of enterprises • Biannual management reports of UNIDO-UNEP RECP Programme • Programme Evaluation (mid-term and final) 	<ul style="list-style-type: none"> • There is insufficient consideration of the potential and importance of RECP as cornerstone for business contributions to resource efficiency, waste and pollution prevention and corporate responsibility • Availability of compelling success stories with environmental, resource use and cost benefits of RECP implementation can accelerate the wider consideration and uptake of RECP concepts, methods, practices and policies
<p><u>Outcome 3:</u></p> <p>RECP Incentives</p> <p>RECP mainstreamed in relevant policy, regulations and enterprise finance</p>	<p>3.1. Increased role for RECP in environmental, industry and other relevant policies at national levels</p> <p>3.2. Increased availability of RECP targeted finance for enterprise sector</p>	<ul style="list-style-type: none"> • National communications of host governments for the Marrakech process • Annual reports of RECP Services Providers participating in the network • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Uptake of RECP by enterprises and other organizations is constrained by lack of government incentive and of availability of appropriate financing options
<p><u>Outcome 4:</u></p> <p>Innovation Capacity</p> <p>National capacities strengthened for implementation of Environmentally Sound Technologies and sustainable product developments</p>	<p>4.1. Increased availability of RECP targeted process innovation and product development services</p>	<ul style="list-style-type: none"> • Reports of technical Services Providers and innovation agents • Biannual management reports on UNIDO-UNEP RECP Programme 	<ul style="list-style-type: none"> • Transfer, adaptation and replication of clean technologies and sustainable product designs is constrained by limited supply of technology management/engineering/innovation services in host countries of the UNIDO-UNEP RECP Programme

Outputs and Activities 1: RECP Services delivery Network

<p><u>Output 1.1:</u> Active network of RECP Services Providers established, network members recruited and a programme of networking, learning and information sharing activities in place that addresses the needs of different members</p>	<p>1.1 Membership satisfaction on the performance of the network of RECP Services Providers (its structure, management, operation and activities)</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO-UNEP RECP Programme • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • NCPCs/NCPPs and other RECP Services Providers perceive value in a UNIDO-UNEP moderated network RECP Services Providers and therefore commit to be active members
<p><u>Activities:</u></p> <p>1.1.1. Facilitate the development of a membership charter, detailing benefits and responsibilities, including membership criteria</p> <p>1.1.2. Establish an appropriate governance structure for the network</p> <p>1.1.3. Establish and operate a knowledge and information sharing and management platform (including e.g. resources, experts, case studies etc.)</p> <p>1.1.4. Organize global network events with an appropriate frequency (e.g. approximately 1.5 yrs)</p>	<p>1.1.1. Network membership charter</p> <p>1.1.2. Governance structure with ToR for Network Committee</p> <p>1.1.3. Existence and use of platform</p> <p>1.1.4. Networking events have taken place</p>	<p>1.1.1. Launch of network charter</p> <p>1.1.2. Minutes of Network Committee meetings</p> <p>1.1.3. Use statistics of the platform</p> <p>1.1.4. Proceedings of networking events</p>	<ul style="list-style-type: none"> • NCPCs/NCPPs and other RECP Services Providers will appreciate and value the benefits they receive from being a member of the RECP Services Providers' Network and fulfil their membership duties and responsibilities
<p><u>Output 1.2:</u> RECP services delivery capacity established in priority countries, new to the programme based on strategic programme</p>	<p>1.2 Initiation of RECP services delivery in three additional countries annually</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme 	<ul style="list-style-type: none"> • There is interest among developing and transition economy countries to establish RECP services delivery capacity ⁽³⁶⁾

³⁶ As of mid 2008, expressions of interest for establishing a NCPC have been received from 36 countries (Albania, Algeria, Argentina, Azerbedjan, Bahrain, Belarus, Congo, Dominican Republic, Ghana, DPR Korea, Honduras, Indonesia, Iran, Jordan, Kuwait, Lesotho, Libya, Lithuania, Madagascar, Mauritius, Mongolia, Nigeria, Pakistan, Panama, Paraguay, Philippines, Qatar, Rwanda, Saudi Arabia, Syria, Sudan, Turkey, United Arab Emirates, Uruguay, Venezuela and Zambia)

Outputs and Activities 1: RECP Services delivery Network

targets		<ul style="list-style-type: none"> • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • The expressions of interest received match the strategic priorities of the programme ⁽³⁷⁾ • There is interest from donors to fund the establishment of RECP services delivery capacity in priority countries
<p><u>Activities</u></p> <p>1.2.1. Formulate and obtain approval for strategy for establishing new RECP services delivery capacity</p> <p>1.2.2. Establish new RECP services delivery capacity through country-level support projects for NCPP and/or NCPC ⁽³⁸⁾</p>	<p>1.2.1. Priority and eligibility criteria for new programme countries established</p> <p>1.2.2. New NCPCs/NCPPs established in accordance with respective project agreements</p>	<p>1.2.1. Biannual management reports of UNIDO-UNEP RECP programme</p> <p>1.2.2. Biannual management reports on UNIDO-UNEP RECP programme and independent evaluation of respective NCPCs</p>	<ul style="list-style-type: none"> • UNIDO and UNEP have comparative advantage for establishing RECP services delivery capacity • Programme management of UNIDO and UNEP has thematic leadership to judge prospects for establishing new RECP services delivery capacity in candidate countries
<p><u>Output 1.3: Existing NCPCs/NCPPs supported in regard to scaling up their activities and impacts and their further institutionalization and ongoing professionalization</u></p>	<p>1.3. Satisfaction of management of existing NCPCs/NCPPs with level of support received</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO-UNEP RECP Programme • Independent evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Existing NCPCs/NCPPs are interested in ongoing support from the UNIDO-UNEP RECP programme management on matters of up-scaling, institutionalization and professionalization

³⁷ For example in regards to: level and structure of industrialisation, past CP and related initiatives, perceived potential for CP and institutional strength of potential host institutions

³⁸ The establishment of new RECP services delivery capacity will be governed by a separate project document, within the strategic and programmatic framework set by this Project Document and the accompanying Programme Strategy.

Outputs and Activities 1: RECP Services delivery Network

<u>Activities</u>			
<p>1.3.1. Formulate, obtain endorsement and implement a strategy and detailed work programme for providing ongoing support to NCPCs no longer institutionally funded through the UNIDO-UNEP RECP Programme</p> <p>1.3.2. Organize and deliver advanced training for network members on topics identified and prioritized by the Network Committee</p> <p>1.3.3. Develop, trial, evaluate and disseminate tools and resources for NCPCs/NCPPs for their institutional development, professionalization and capacity building in <u>all</u> RECP service areas ⁽³⁹⁾</p> <p>1.3.4. Develop, trial, evaluate and disseminate flexible guidance for <i>up-scaling</i> ⁽⁴⁰⁾ RECP implementation through adaptation and replication of RECP methods and communication and stakeholder strategies</p>	<p>1.3.1. Strategy and work programme in place</p> <p>1.3.2. Training events have taken place</p> <p>1.3.3. Tools and resources have been developed to support institutionalization and professionalization of NCPCs/NCPPs</p> <p>1.3.4. Guidance on up-scaling available along with results of trials</p>	<p>1.3.1. Release of strategy and periodically updated work programme</p> <p>1.3.2. Proceedings of trainings</p> <p>1.3.3. Publication of tools/resources</p> <p>1.3.4. Publication of up-scaling guidance and results</p>	<ul style="list-style-type: none"> • Programme management of UNIDO and UNEP has the thematic leadership to support national owners of the NCPCs/NCPPs to achieve a strategic position as national RECP custodian • Widespread uptake of RECP requires locally adapted and abridged RECP methods that can be easily replicated and concerted involvement of various stakeholders to build strategic commitment of private sector for RECP

³⁹ Execution of further capacity building initiatives will be governed by separate project document(s) , framed within the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

⁴⁰ The term '*up-scaling*' is used to refer to the mechanism of achieving a rapid increase in CP activity and implementation in a relatively short timeframe, for example, depending on size of business sector in the host country, an ten- to hundred-fold increase in CP activity in 2-3 years.

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 2: Thematic RECP Applications			
<p><i>Output 2.1:</i> Thematic projects on RECP for Resource Efficiency developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</p>	<p>2.1 Thematic projects on RECP for Resource Efficiency developed, implemented and evaluated</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO UNEP RECP Programme • Independent evaluation of respective thematic project(s) 	<ul style="list-style-type: none"> • There is interest among qualifying RECP Services Providers to undertake thematic activities on RECP for Resource Efficiency • There is interest among donors to fund thematic activities on RECP and Resource Efficiency
<p><i>Activities</i></p> <p>2.2.1. Coordinate periodic reviews of present status and future trends on RECP and resource efficiency and identify thematic issues and opportunities</p> <p>2.2.2. Formulate and implement thematic project(s) on RECP for Resource Efficiency ⁽⁴¹⁾</p>	<p>2.1.1. Thematic reviews completed and priorities established and periodically updated</p> <p>2.1.2. Thematic project(s) on RECP for Resource Efficiency formulated, implemented and evaluated as per respective project agreements</p>	<p>2.1.1. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.1.2. Biannual management reports and independent evaluation of respective thematic project(s), including assessment of impacts</p>	<ul style="list-style-type: none"> • Programme management by UNIDO and UNEP succeeds in scoping thematic activities to mainstream the application of RECP for Resource Efficiency, using where available appropriate resources previously developed and agency-wide expertise
<p><i>Output 2.2:</i> Thematic project(s) on RECP for Waste and Pollution Prevention ⁽⁴²⁾ developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services</p>	<p>2.2 Thematic project(s) on RECP for Waste and Pollution Prevention developed, implemented and evaluated</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO UNEP RECP Programme • Independent evaluation of respective thematic projects 	<ul style="list-style-type: none"> • There is interest among qualifying RECP Services Providers to undertake thematic activities on RECP and Waste and Pollution Prevention • There is interest among donors

⁴¹ The implementation of thematic project(s) on RECP for Resource Efficiency will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

⁴² Environmentally sound management of chemicals is within the context of this UNIDO-UNEP RECP Programme considered to be an integral part of prevention of waste and emissions

Narrative Summary	Indicators	Means of Verification	Assumptions
Providers			to fund thematic activities on CP and Waste and Pollution Prevention
<p><u>Activities</u></p> <p>2.2.1. Coordinate periodic reviews of present status and future trends on RECP and Waste and Emission Prevention and identify thematic issues and opportunities</p> <p>2.2.2. Formulate and implement thematic project(s) on RECP for Waste and Emission Prevention ⁽⁴³⁾</p>	<p>2.2.1. Thematic reviews completed and priorities established and periodically updated</p> <p>2.2.2. Thematic project(s) on RECP for Waste and Pollution Prevention formulated, implemented and evaluated as per respective project agreements</p>	<p>2.2.1. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.2.2. Biannual management reports and independent evaluation of respective thematic project(s), including assessment of impacts</p>	<ul style="list-style-type: none"> Programme management by UNIDO and UNEP succeeds in scoping thematic activities to mainstream the application of RECP for Waste and Pollution Prevention, using where available appropriate resources previously developed and agency-wide expertise
<p><u>Output 2.3: Thematic projects on RECP for Corporate Responsibility developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</u></p>	<p>2.3 Thematic project(s) on RECP for Corporate Responsibility developed, implemented and evaluated</p>	<ul style="list-style-type: none"> Biannual management reports of UNIDO-UNEP RECP Programme Independent evaluation of respective thematic project(s) 	<ul style="list-style-type: none"> There is interest among qualifying RECP Services Providers to undertake thematic activities on RECP for Corporate Responsibility There is interest among donors to fund thematic activities on RECP for Corporate Responsibility

⁴³ The implementation of thematic projects(s) on RECP for Waste and Emission Prevention will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><i>Activities</i></p> <p>2.3.1. Coordinate periodic reviews of present status and future trends on RECP and Corporate Responsibility and identify thematic issues and priorities</p> <p>2.3.2. Formulate and implement project(s) on RECP for Corporate Responsibility (⁴⁴)</p>	<p>2.3.1. Thematic reviews completed and priorities established and periodically updated</p> <p>2.3.2. Thematic project(s) on RECP for Corporate Responsibility formulated, implemented and evaluated as per respective project agreements</p>	<p>2.3.1. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.3.2. Biannual management reports and independent evaluation of respective thematic project(s), including assessment of impacts</p>	<ul style="list-style-type: none"> • Programme management by UNIDO and UNEP succeed in scoping thematic activities to mainstream the application of RECP for Corporate Responsibility using where available appropriate resources previously developed and agency-wide expertise
Outputs and Activities 3: RECP Incentives			
<p><i>Output 3.1:</i> Flexible framework of guidelines for mainstreaming RECP in relevant government policies (including those for Sustainable Consumption and Production and sustainable industrial development) developed, trialed and evaluated in selected countries, instruments and results widely disseminated through network of RECP Services Providers, and capacity built of government institutions to implement and enforce relevant policies and legislation</p>	<p>3.1 Proposals for RECP-conducive policies identified, implemented and enforced in pilot countries</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO UNEP RECP Programme • National communications of pilot countries to the Marrakech Process • Programme evaluation (interim and final) 	<ul style="list-style-type: none"> • Governments of host countries of UNIDO-UNEP RECP Programme are interested and committed to develop, implement and enforce RECP-conducive policy and regulations • There is interest among qualifying RECP Services Providers to implement pilot activities on mainstreaming RECP in relevant national policies • There is potential interest among donors to fund complimentary activities on national implementation of RECP action plans

⁴⁴ The implementation of thematic projects(s) on RECP for corporate responsibility will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy. The current pilot projects on Closing the Loops and Sustainable Industrial Resource Management could form a starting point for thematic sub-programme(s) on CP and Materials Efficiency.

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><u>Activities</u></p> <p>3.1.1. Develop flexible framework of guidelines for mainstreaming RECP in relevant government policies, based on outcome of global assessment of best practices and policy instruments</p> <p>3.1.2. Trial flexible framework for development of national action plans in at least some 5 countries ⁽⁴⁵⁾, including national capacity building for implementation and enforcement, and evaluate results</p> <p>3.1.3. Formulate and implement complimentary activities on implementation of national RECP action plans in the broader context of Sustainable Consumption and Production and/or Sustainable Industrial Development in selected countries ⁽⁴⁶⁾</p>	<p>3.1.1. Flexible framework developed and results of global assessment of best practices available</p> <p>3.1.2. Completion of pilots and results and experiences documented in case study, and promoted throughout the Programme</p> <p>3.1.3. Complementary project(s) on national implementation formulated, implemented and evaluated as per the respective project agreement(s)</p>	<p>3.1.1. Publication of flexible framework and background report</p> <p>3.1.2. Biannual management reports of the UNIDO-UNEP RECP Programme</p> <p>3.1.3. Biannual management reports and independent evaluation of respective complementary project(s)</p>	<ul style="list-style-type: none"> • Effective liaison with Marrakech Process can be achieved and synergies with development of national action plans for Sustainable Consumption and Production (SCP) and industrial policies are being achieved
<p><u>Output 3.2: Flexible framework of guidelines and instruments for mainstreaming RECP in enterprise finance developed, trialed and evaluated in selected countries, methods and results widely disseminated through the network of RECP Services Providers, and capacity built of financial sector and business Services providers to avail and utilize appropriate finance options for RECP-investments</u></p>	<p>3.2 Proposals for RECP-conducive finance and credit identified and implemented by selected financial institutions in pilot countries</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme • Reports from collaborating financial institutions • Programme evaluation (interim and final) 	<ul style="list-style-type: none"> • Financial institutions operating in host countries of the UNIDO-UNEP RECP Programme are interested and committed to finance profitable RECP investments • There is interest among qualifying RECP Services Providers to undertake pilot initiatives in collaboration with financial institutions

⁴⁵ Further training and capacity building at the global level will take place through training activities under 1.3.2.

⁴⁶ Depending on the scope of the supportive activities for trial of the guidelines, these could be spun off into separate project(s) for selected country(ies). Such complimentary projects would then be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

Narrative Summary	Indicators	Means of Verification	Assumptions
			<ul style="list-style-type: none"> • There is potential interest among donors and financial institutions to fund complimentary projects on specific financial instruments
<p><i>Activities</i></p> <p>3.2.1. Develop flexible framework of guidelines on possible financial instruments for RECP investment based on review of best practices and gaps identified</p> <p>3.2.2. Pilot flexible framework for development of specific financial instruments in some 5 countries, including national capacity building in the finance and business Services sectors ⁽⁴⁷⁾</p> <p>3.2.3. Formulate and implement complimentary project(s) to create specific financial instruments in selected countries ⁽⁴⁸⁾</p>	<p>3.2.1. Completion of the flexible framework and the background study with results from global best practices' assessment</p> <p>3.2.2. Completion of pilots and results and experiences documented</p> <p>3.2.3. Complementary project(s) for creation of specific financial instruments formulated, implemented and evaluated as per the respective project agreement(s)</p>	<p>3.2.1. Publication of framework and background report</p> <p>3.2.2. Publication of reports on the pilot projects</p> <p>3.2.3. Biannual management reports and independent evaluation of respective complementary project(s)</p>	<ul style="list-style-type: none"> • RECP programme management by UNIDO and UNEP succeeds in building upon results and resources developed for CP finance and investment promotion

⁴⁷ Further training and capacity building at the global level will take place through networking and up-scaling activities under 1.3.2

⁴⁸ Depending on the scope of the supportive activities for trial of the guidelines, these could be spun off into separate project(s) for selected country(ies). Such complimentary projects would then be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy. It is foreshadowed that the current project on Chemical Leasing could be integrated as a complimentary project on the application of performance base contracting (a financial instrument) for RECP and chemicals management.

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 4: Innovation Capacity			
<p><i>Output 4.1:</i> Opportunities identified and evaluated in selected countries for enhancing national innovation capacities for the assessment, selection, adaptation and replication of Environmentally Sound Technologies (ESTs)</p>	<p>4.1 Innovation capacity strengthened to enable transfer and replication of ESTs</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Technical institutes, innovation agents and technology Services Providers exist in host countries of UNIDO-UNEP RECP Programme that are interested to develop further capacities and services in transfer, adaptation and replication of ESTs
<p><u>Activities</u></p> <p>4.1.1. Review at country level technology management and assessment capacities and national technology/process innovation systems in selected countries</p> <p>4.1.2. Formulate and implement thematic projects to develop and/or strengthen innovation and technology assessment and adaptation capacities at national level in selected country(ies) ⁽⁴⁹⁾</p> <p>4.1.3. Publish results and experiences widely in toolkit and/or other resource materials ⁽⁵⁰⁾</p>	<p>4.1.1. Analytical report of base case reviews</p> <p>4.1.2. Supportive project(s) on strengthening of process innovation capacities formulated, implemented and evaluated as per the respective project agreement(s)</p> <p>4.1.3. Toolkit developed and published</p>	<p>4.1.1. Publication of baseline report(s) and biannual management reports of the UNIDO-UNEP RECP Programme</p> <p>4.1.2. Biannual management reports and independent evaluation of respective thematic projects</p> <p>4.1.3. Biannual management reports of the UNIDO-UNEP RECP Programme</p>	<ul style="list-style-type: none"> • Programme management by UNIDO-UNEP succeed in identifying and implementing appropriate activities to leverage the availability of technology innovation and management services, using where available appropriate resources previously developed and agency-wide expertise
<p><i>Output 4.2:</i> Opportunities identified, trialed and evaluated in selected countries for enhancing national innovation capacities for development, implementation and marketing of sustainable products and services</p>	<p>4.2 Innovation capacity strengthened to support sustainable product developments</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Technical institutes, innovation agents and technology Services Providers exist in host countries of UNIDO-UNEP RECP Programme that are interested to develop further capacities and services in sustainable product development

⁴⁹ To be defined on basis of findings from 4.1.1 and implemented with a separate project document to be developed within the strategic and programmatic direction of this Project Document and the accompanying Programme Strategy, either separately or in combination with activity 4.2.2

⁵⁰ Depending on findings of 4.1.1 and 4.1.2 and possibly integrated with 1.3

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><u>Activities</u></p> <p>4.2.1 Review at country level technology management and assessment capacities and national technology/process innovation systems in selected countries</p> <p>4.2.2 Formulate and implement thematic projects to develop and/or strengthen innovation and technology assessment and adaptation capacities at national level in selected country(ies) ⁽⁵¹⁾</p> <p>4.2.3 Publish results and experiences widely in toolkit and/or other resource materials ⁽⁵²⁾</p>	<p>4.2.1 Analytical report of base case reviews</p> <p>4.2.2 Supportive projects on strengthening of product development capacities formulated, implemented and evaluated, as per the respective project agreement(s)</p> <p>4.2.3 Toolkit developed and published</p>	<ul style="list-style-type: none"> • Publication of baseline report(s) and biannual management reports of the UNIDO-UNEP RECP Programme • Biannual management reports and independent evaluation of respective thematic projects • Biannual management reports of the UNIDO-UNEP RECP Programme 	<ul style="list-style-type: none"> • Programme management by UNIDO-UNEP succeed in identifying and implementing appropriate activities to leverage the availability of product innovation and development services, using where available appropriate resources previously developed and agency-wide expertise

⁵¹ To be defined on basis of findings from 4.2.1 and implemented with a separate project document to be developed within the strategic and programmatic direction of this Project Document and the accompanying Programme Strategy, either separately or in combination with activity 4.1.2.

⁵² Depending on findings of 4.2.1 and 4.2.2 and possibly integrated with 1.3.

Annex 2: UNIDO RECP-Related Portfolio 2012-2017

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
-	<i>The Global Resource Efficient and Cleaner Production (RECP) Programme</i>	<i>Ongoing</i>	<i>60 Countries</i>	<i>2,426,326</i>	<i>13,573,674</i>		<i>SECO</i>	
Part of the UNIDO Global RECP Programme								
1	RECP Indonesia	Ongoing	Indonesia	175,737.60	4,126,077.79	-	Switzerland	-
2	RECP Tunisia	Completed	Tunisia	-	2,228.56	127,200.00	Switzerland	-
3	RECP Ukraine: Promoting the adaptation and adoption of RECP through the establishment and operation of a National Cleaner Production Centre (NCPC) in Ukraine	Ongoing	Ukraine	-	4,188,129.00	-	Austria and Switzerland	The NCPC has received project specific funds from GIZ and Norway
4	Regional Programme 'Greening Economies in the European Union's Eastern Neighbourhood' (EaP GREEN Programme)	Ongoing	Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine	-	2,120,000.00	-	EU	Austrian Dev. Bank, Slovenia, and UNIDO
5	National Resource Efficient and Cleaner Production Programme Albania	Completed	Albania	-	254,400.00	-	OPF Albania	-

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
6	National Resource Efficient and Cleaner Production Programme Republic of Moldova	Completed	Moldova	-	424,000.00	-	Austria	-
7	Chemical Leasing 4.0	Ongoing	Global	-	671,880.00	-	Austria, Switzerland, and Germany	-
8	Elimination of Lead in Paint in the Andean Region	To Be Commenced	Bolivia, Colombia, Ecuador, and Peru	-	8,000,000.00	-	GEF	-
9	Regional Network for Strengthening Cooperation, Fostering Transfer and Adaptation of RECP, Low Carbon and Sustainable Tourism in the South-Eastern European Countries	Ongoing	Albania, Croatia, Macedonia, Moldova, Montenegro, and Serbia	-	750,320.00	-	Austria and Slovenia	-
10	National Cleaner Production Programme (NCP): Bosnia and Herzegovina	Ongoing	Bosnia and Herzegovina	-	279,955	-	Slovenia	N/A

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
11	Establishment of a National RECP Network in the Dominican Republic and regional RECP dissemination in the CARIFORUM countries	To Be Commenced	Dominican Republic	-	392,273	-	Austria	N/A
12	Eco- Industrial Parks (EIP) Development in Latin American countries	Ongoing	Argentina, Bolivia, Chile, Costa Rica, El Salvador, Guatemala, Panama, and Paraguay	-	784,546	-	LAC Trust Fund	N/A
13	Inclusive Low Carbon Programme and Chemical Leasing in Serbia	Ongoing	Serbia	-	335,956.00	-	Austria	N/A
14	Strengthening National Capacity in Sri Lanka for Applying SMART Chemicals Management	To Be Commenced	Sri Lanka	-	249,804.34	-	SAICM	N/A

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
15	Improving Productivity and Competitiveness of Shrimp Value Chain in the LAC through Regional Cooperation	Ongoing	Colombia, Cuba, Dominican Republic, Ecuador, Mexico, and Nicaragua	-	121,282.00	-	Organization of the Petroleum Exporting Countries (OPEC) Trust Fund for Latin America and the Caribbean	N/A
16	More and Better Jobs in Cabo Delgado Province and Nampula Province - Harnessing the Opportunities of the New Economy in Mozambique	Completed	Mozambique	-	72,788.00	-	Spanish Fund for the SDGs	N/A
TOTAL CONTRIBUTIONS TO RECP PROGRAMME PROJECTS:				175,738	22,773,640	127,200	OVERALL:	23,076,577
Spin-Off Projects								
1	Eco-Industrial Park Project in Vietnam	Ongoing	Vietnam	860,220.00	3,524,000.00	-	GEF	-
2	Sustainable Industrial Zone Development in Peru	Pipeline	Peru	120,000.00	4,864,000.00	36,065,000.00	GEF	Private Sector Institutions
3	Pilot RECP Myanmar	Ongoing	Myanmar	480,907.95	500,000.00	-		-

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
4	Policy Advancement on Environment and Green Industry Development	Completed	Vietnam	-	500,000.00	-	OPF Vietnam	-
5	Green Chemistry Guidance Document & Case Study Development	Ongoing	Global	50,000.00	1,770,000.00	6,524,000.00	GEF	Private Sector Institutions
6	IOMC Toolbox for Decision-Making in Chemicals Management Phase II: Modification, Expansion and Promotion	Pipeline	Global	-	2,239,600.00	249,586.00	EU	UNIDO
7	IOMC Toolbox for Decision Making in Chemicals Management – Phase III: From Design to Action	Pipeline	Global	-	2,799,500.00	419,365.00	EU	UNIDO
8	Green Production and Trade - Handicrafts Sector	Completed	Vietnam	-	800,000.00	-	MDF Fund	-
TOTAL CONTRIBUTIONS TO RECP SPIN-OFF PROJECTS:				1,511,128	16,997,100	43,257,951	OVERALL:	61,766,179

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
<i>Related to or Synergistic with RECP Programme Activities</i>								
1	Climate Technology Centre and Network (CTCN)	Ongoing	Global	345,060.00	10,000,000.00	-	Various	-
2	Climate Change Related Technology Transfer for Cambodia: Using Agricultural Residue Biomass for Sustainable Energy Solutions	Ongoing	Cambodia	200,000.00	1,690,000.00	4,565,000.00	GEF	-
3	Green Industry Initiative	Ongoing	Global	194,400.00	150,000.00	70,000.00	Switzerland	China
4	Partnership for Action on Green Economy (PAGE)	Ongoing	Mongolia, Peru, Senegal, Burkina Faso, China, South Africa, Barbados, Uruguay, Guyana, Mauritius, Kyrgyz Republic, Brazil, and Ghana	-	1,434,651.00	-	Norway, Sweden, Finland, Switzerland, Germany, Korea, and the EU	-

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
5	Industrial Energy Efficiency Project in South Africa (IEE Project)	Completed	South Africa	-	6,100,000.00	1,550,000.00	SECO, DfID, and South Africa (dti)	-
6	Industrial Energy Efficiency Improvement in South Africa through Mainstreaming the Introduction of Energy Management Systems and Energy Systems Optimization (IEE Phase II)	Ongoing	South Africa	-	5,776,484.00	17,600,000.00	GEF	South Africa (dti)
7	SwitchMed MED TEST II Project	Ongoing	Algeria, Egypt, Israel, Lebanon, Morocco, Palestine, and Tunisia	-	16,112,000.00	848,000.00	EU	-
8	UNIDO-GEF 'Market Transformation Programme on Energy Efficiency in GHG-Intensive Industries' in the Russian Federation	Ongoing	Russia	-	8,078,625.00	301,000,000.00	GEF	UNIDO and EBRD
9	Low Carbon and Climate Resilient Industrial Development in Africa	Ongoing	Egypt, Kenya, Senegal, and South Africa	-	1,828,408.00	-	Japan	

No.	Project Title	Status	Beneficiary Countries	Financial Contribution from Global RECP Programme (USD) ¹	Total Budget (USD) ¹		Donors	
					Grant to UNIDO	Co-financing	Main Donor	Other Donors
10	Applications of Industry-Urban Symbiosis and Green Chemistry for Low Emission and Persistent Organic Pollutants (POPs)-Free Industrial Development in Thailand	Pipeline	Thailand	-	8,966,000.00	59,200,000.00	GEF	-
11	Low-carbon development for productivity and climate change mitigation through the Transfer of Environmentally Sound Technology (TEST) methodology	Pipeline	Cambodia		2,000,000.00	11,617,026.00		
12	Climate change mitigation through methane recovery and reuse from industrial wastewater treatment	Pipeline	Myanmar		4,000,000.00	19,100,000.00		
TOTAL CONTRIBUTIONS TO SYNERGISTIC/RELATED PROJECTS:				739,460	66,136,168	415,550,026	TOTAL CONTRIBUTION:	481,686,194
TOTAL CONTRIBUTIONS TO UNIDO RECP / RECP-RELATED PROJECTS:				<u>2,426,326</u>	<u>121,906,908</u>	<u>458,935,177</u>	OVERALL VALUE:	<u>580,842,085</u>

Source: UNIDO ERP database and Project Manager, as of July 2017.

Note: [1] Conversion was made using the UN Exchange Rate as of 05 October 2017 of: 0.972 CHF = 1.00 USD and 0.848 EUR = 1.00 USD

Annex 3: Project Follow-up to the Recommendations of the Mid-Term Evaluation

The Midterm Evaluation (MTE) of the RECP Global Programme was reported in October 2015 and included a set of detailed key recommendations. The recommendations were divided into those for UNIDO and UNEP, for SECO, and for the RCEPnet, addressed to its Executive Committee and in general the members. The key recommendations for UNIDO and UNEP were each detailed in a number of sub-recommendations.

Following the management response procedure within UNIDO, the project manager is to provide comments of acceptance/partial or non-acceptance for each recommendation, in consultation with partners, within one month after the transmission of the MTE report. One year after the MTE report, the PM is required to deliver information on actions taken and the status of the implementation. However, this response was already provided in January 2016, and therefore most of the actions in the Response were indicated as 'ongoing'.

The IME included thirty-six (36) recommendations which were all highly pertinent to the project. By the time this final evaluation took place in August 2017, of the 36 recommendations made by the IME, fourteen (14) had been met, twelve (12) were partially met and ten (10) had not been met. While many administrative, efficiency and SECO related issues pointed out by the IME were properly addressed, other issues that were more of a strategy in nature, were not addressed or the steps taken were insufficient to set the project in the right direction (see Table A : FOLLOW UP TO THE INDEPENDENT MIDTERM EVALUATION RECOMMENDATIONS).

Seven (07) of the eight (08) Key Recommendations to UNEP and UNIDO were dealt with in the Response at the general level, and no response was provided to the details of each recommendation. This means no insight is available on what actions were taken with regard to these detailed recommendations. Detailed feedback was given for the last recommendation on UNIDO programme management, procurement and HRM. Five (05) recommendations to SECO and the eighteen (18) for RECPnet that did not have detail subdivisions were dealt with correctly in the Management Response.

Most recommendations were accepted fully by UNIDO Project Management. Two (02) of the general recommendations to UNIDO and UNEP were partially accepted, as well as the two (02) specific HRM recommendations. One (01) SECO recommendation was not accepted. Three (03) RECPnet recommendations were partially accepted. These will first be analyzed, following the numbering of the recommendations in the Response Sheet.

Recommendations not or partially accepted in the Response Sheet.

Recommendation [R1] for UNIDO/UNEP suggested a reformulation of the Programme with **country-level impact and result formulation, and a better focus on SMART results**. The focus on results orientation/segregation of network developer and implementer' was accepted, not so the country-level impact and results orientation, since these were "perhaps not relevant/applicable for all workstreams". However, the results as they are analyzed in the current final evaluation are being presented at enterprise, sector, national and regional level, as well as per workstream, meaning the suggested country level impact

and result orientation becomes visible. Still, this final evaluation again stresses the need for a result-based monitoring system and the compilation of a database on company, sector and country level.

The detailed recommendations under [R1] were not touched upon in the response sheet but included, among others, the need to **develop a better balance between UNIDO's technical concept and policy, economic and innovation approaches of UNEP as well as other partners**. Also, it recommended to strengthen the Programme's emphasis on developing framework conditions and embedding drivers and incentives. These outstanding topics are still highly relevant and dealt with in great detail in this Terminal evaluation in Section 10.

The recommendation [R5] for UNIDO/UNEP to develop/buy-in expertise on network development, was partially accepted, stating this expertise is needed but resource constraints affect the recommendation. The envisioned trainings for all involved did not yet take place. The other action, recruitment of experienced staff in 2015, did result in better network development – see section 12.1 of this report.

The specific recommendations for UNIDO recruitment/HRM, [R12] and [R13] were partially accepted. Recommendation [12] suggests simplification and review of contracting procedures. In reply, system-level bottlenecks were resolved within UNIDO's SAP system, allowing for more rapid processing. Also, RECPnet members are designated as 'preferred suppliers', however, this possibility has not been used until now. This final evaluation did not encounter problems or complaints on delayed or highly complex contracting, meaning this issue seems to be solved. Recommendation [13] suggest a compensation system better aligned with other international actors. This was partially accepted, with the comment that sub-contracts are selected on criteria of technical proficiency and economic value. Individual service agreements are subject to a pre-defined pay scale on ICSC norms, and will not be changed.

[R15] to SECO suggested to increase funding towards RECPnet (Workstream 1) to support further network development. This recommendation was not accepted by SECO, stating it will not increase its funding towards RECPnet but encourages multilateral contributions to this workstreams. These have not been reported in the years after the IME.

[R19] to RECPnet asked to undertake an assessment/ranking of the Centres to be able to build up a stage model for institutional development of a Centre. This was partially accepted, with the agreement that ranking is indeed needed, but questioning whether more is needed than the periodic re-application for membership. Targeted capacity building would be a better use of resources and was put in as an action.

The quality control review process in 2016 has resulted in 11 Centres being dropped from the Network. Up to now, no targeted capacity building has been noted. Further, this terminal evaluation concludes that the wide heterogeneity among the RECPnet members has constrained network development, so the need for a system for the centres with clear levels of excellence/maturity seems to have increased. For instance, this evaluation

identified a group of around twenty (20) centres as being engaged in policy reforms, seen as critical to bring about a RECP transformation in a country. Nonetheless, this terminal evaluation also points out at the need to develop a capacity development strategy that responds to the stages of development of the centers.

The recommendation [R24] to explore options to **establish RECPnet as an institutional entity and increase ownership was partially accepted, cautioning that first long-term sustainability must be guaranteed**, an issue which is addressed in the Operational Strategy 2015-2020 of the Network. Sustainability of the network is indeed assessed as weak in this TE, see 12.1

[R27] to RECPnet recommended strategic alliances with a selection of other global networks to improve effectiveness of the network. This was partially accepted, in the sense that useful synergies should be explored but resources should not be spread too thinly, on ineffective partnerships. The action connected was a list of priority task adopted in the RECPnet strategy end of 2015. This terminal evaluation concludes effectiveness of RECPnet is medium satisfactory, as part of the new activities RECPnet members were included as speakers and participants in several global forum events during the last two years.

Recommendations [R31,32] on mainstreaming – develop RECPnet own policy role to influence framework conditions, include capacity building on this – was partially accepted with the question whether this is a core function of the network. This TE thinks it is, see section 10 on ‘progress to impact and contributions to transformations’.

Recommendations fully accepted.

All other recommendations of the IME were fully accepted by UNIDO and SECO/RECPnet and the actions that were to be taken are analyzed below.

The recommendation [R2] to extend the programme to the end of 2017 was accepted by the donor. In conjunction, [R2] **suggested to decide on a level of impact that can be achieved within the existing timeframe for implementation, once there would be a clear output-oriented planning and reporting**. In the additional recommendations, a lot of detailed suggestions on this were given for each of the workstreams. There was no response to any of this; in this Terminal Evaluation, it is again emphasized there is an urgent need for a result-based monitoring system (see conclusions and key recommendations).

[R3] **recommends to increase relevance for and ownership by RECPnet members** by adopting a more participative orientation. Steps on this direction were taken in the RECPnet operational strategy 2015-2020, including amore participative KMS and an active attitude of the Executive Committee to incentivize member participation. For the analysis on these topics in this TE, see section 12.1,12.2 and 13.1.2, which still shows a low relevance and ownership.

[R4] suggests to critically look at further RECPnet expansion versus diversification into cooperation with other networks and partners. Actions taken are a soft RECPnet membership cap, release of non-performing members and closer synergies with other

programmes. One action not described but in line with what is suggested under [R4] with respect to the EIP workstream is closer involvement in related EIP programmes and projects, which is now emerging with GIZ, IFC and others.

[R6] suggests integration of innovative tools and a common perspective on synergy with UNEPs eco-innovation tools. In the action described, better integration with UNEPs policy tools is foreseen and availability of all tools via KMS. The latter action is now in progress by systemizing existing tools into a Navigator approach. UNEP's Eco-innovation programme and UNIDO's RECP programme however are still running in parallel with each other with very little coordination.

[R7] asks for a direct **appointment of an overall manager for the programme within UNIDO**. This has been effectuated, with more clear distribution of workstreams among staff. The issue that manager and staff are on the same hierarchical level is discussed in this TE.

[R8] calls for better understanding and management of bottlenecks in UNIDO's administrative procedures. Although it is noted these organization wide failures are not easily controlled by project managers, indeed as of 2016 incidents were much less frequent and consequential. Response time was shortened to RECPnet members and others.

Implementation planning improvement [R9] has occurred, as well as increased lead-time [R10] and avoidance of over-promising [R11]. Connected result-based monitoring and evaluation activities are still a point of consideration, as mentioned before.

The IME also reported that an important consequence of the exclusive reliance on SECO funding for the UNIDO portions of the RECP programme was an excessive influence on the programme. This resulted in scope creep that further weakened the integrity of the programme. This led to recommendations [R14,16,17,18] for a less hands-on approach on the part of SECO, which they fully accepted. During the March 2016 coordination meeting, it was agreed that SECO will ensure to let the programme run along the governance and operational lines established.

The need for further cooperation on RECPnet between UNIDO and UNEP, recommended in [R20,33], was accepted, and a balanced and constructive cooperation between the two agencies as of 2015 is reported, offering project and capacity development wherever possible.

Several recommendations on RECPnet programme design, plans and activities [R21,22,23] were included in the RECPnet Operational Strategy 2015-2020. However, this TE still finds issues with the efficiency of effectiveness of the network, see 12.1.

Recommendations on improvement of the Network's efficiency by elaborating long-term strategies, [R26], as well as its impact – define high-impact service, seize opportunities for joint collaboration. [R28,29] were taken up by the request to the RECPnet Ex Com to identify regional priorities and set-up working groups for project proposals, connected with a number of online services to increase visibility and opportunities for communication and collaboration. Still, as reported in 12.1 this seems to be a slow process up to now.

The recommendation on upscaling [R30] by developing tools for different levels of competence was responded that in the current development of the Navigator of tools customization of these is also foreseen.

Finally, **recommendations on gender issues** – by at least using existing guidelines [R34], identify areas where gender has strategic relevance in RECP [R35] and identify the needs as to develop a capacity building strategy for this [R36] were to be taken into account in the next phase of the RECP, and the TE confirms that Gender issues were still not addressed in the programme.

Annex 3a: Follow-up to Mid-term Evaluation Recommendations

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings</i> : Met / Partially met / Not met
<p>1. Reformulate the Programme with a country-level impact and results orientation, clarifying roles and responsibilities; segregate roles of “Network Developer” from that of “Implementer” (of programmatic activities), with a better focus on SMART results, enhancing the potential for mainstreaming of the Programme’s outcomes.</p>	<p>Partially accepted – focus on results orientation accepted, but country-level impact perhaps not relevant/applicable for all outputs/work streams</p>	<p>Not met: a better balance between technical and policy/institutional issues remains a key factor limiting the extent to which the long-term objectives of the program will be achieved.</p>
<p>2. Explore possibilities to extend the present Programme to the end of 2017 to be able to deliver successful outcomes and present impact and sustainability.</p>	<p>Fully accepted</p>	<p>Partially met: while the programme was extended, the programme did not develop a results-based management system.</p>
<p>3. To increase relevance for and ownership by RECPnet members, adopt a more participative orientation.</p>	<p>Fully accepted</p>	<p>Partially met: members continue to have low ownership of the network and there is a strong perception among members that the network is an UNIDO. UN Environment project.</p>
<p>4. Take a strategic look at further expansion of the RECPnet versus diversification into cooperation with highly effective partners and networks to increase sustainability: connect more deeply with other actors to find synergy and replication/multiplication of RECP approaches in other programmes and projects (this requires the resources to do so, i.e. time, money, and expertise).</p>	<p>Fully accepted</p>	<p>Met</p>

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
<p>5. In further developing the RECPnet, develop in-house or buy-in expertise on network development. In combination with this, find lessons learned, typical pitfalls, identify key success factors through exchange with existing network initiatives in related fields.</p>	<p>Partially accepted – Network development expertise is needed, however resource constraints affect this recommendation</p>	<p>Partially met: the programme hired a network coordinator supporting administrative arrangements. There is still little support in the strategic development of the Network. This is done mainly by the ExCom, whose members devote little time to the network. KMS is done mostly from a ICT/technical side, the strategic and communication development of the KMS gets far less attention from the ExCom.</p>
<p>6. To improve the Programme's innovation aspects, determine how the innovative tools and methods currently available can support improved service delivery by RECPnet members. As part of this, develop a common perspective on the synergy between RECP and eco-innovation (UNIDO for the technical innovation, UNEP for the business innovation).</p>	<p>Fully accepted</p>	<p>Partially met: integration of tools is taking place however UNIDO and UN Environment programmes are still running parallel.</p>
<p>7. Without delay, appoint within UNIDO an overall programme manager with strong project management skills. Insist on stronger in-house presence of the manager and his/her team; utilize a more delegative management style focusing on integration, with the team clearly dedicated to and responsible for respective workstreams.</p>	<p>Fully accepted</p>	<p>Partially met: programme management remained divided among several managers with no evidence of systematic oversight of the programme to ensure integration of programme activities.</p>

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
8. With regard to UNIDO project administration, understand and manage the bottlenecks for contracting/procurement to ensure timely initiation and continuation of activities. Realistic administration is important especially with RECPnet members, as this is the basis of trust-building in the network.	Fully accepted	Met
9. Do realistic planning, either seriously reflecting chronic sources of delay or eliminating these.	Fully accepted	Met
10. Increase lead-time for initiating activities to avoid pressure to get needed resources in place at the last minute.	Fully accepted	Met
11. Avoid over-promising to reduce risk of creating disappointed stakeholders.	Fully accepted	Met
12. Review and simplify contracting procedures.	Partially accepted – system-level bottlenecks have been resolved as of late 2014 with the increasing operationalization of UNIDO’s enterprise resource planning system, SAP	Met
13. Review system/criteria used to determine compensation to become more aligned with other international actors.	Partially accepted	Met
14. SECO Reduce direct hand on influencing programme design to align with own specific policy goals and keep influence at a more general level agreed in an upfront negotiation to enable the Programme to roll out rather than be too frequently adapting to emergent interests and opportunities.	Accepted	Met

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
15. SECO Increase funding (from own sources or through encouragement of multilateral contributions) in the remaining implementation period towards the RECPnet workstream WS1 to support continuing network development, institutional development and strengthening of capacities vis-à-vis policy role of the Centres (and prioritize these aspects in a future funding cycle).	Not accepted	Met
16. SECO Beware of putting UNIDO/UNEP in position of doing significant adaptive management to respond to emerging thematic and geographic priorities linked to political objectives.	Accepted	Met
17. SECO Create less pressure for adaptive management: more effectively balance SECO interests in using the RECP Programme as a policy tool to allow the Programme to work on achieving objectives redefined as feasible and achievable within the remaining implementation timeframe.	Accepted	Met
18. SECO Review oversight and governance mechanisms to ensure early feedback (or agreement) on mission drift and scope deviations.	Accepted	Met
19. RECPnet: Undertake an assessment of the Centres (self, peer, and external) and engage in interactive exchange to identify existing competences and gaps to build up a stage model (for development of an NCPC) which would also help in developing a shared understanding and roadmap for institutional development.	Partially accepted Agree that assessment / ranking of centres is needed, but question whether more is needed than the periodic re-application for network membership.	Not met: there remains a need to have a differentiated approach to the members of the network on the basis of their capacities and needs

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
20. RECPnet: Through RECPnet, emphasize the need for further cooperation between UNIDO and UNEP. From that, the Network will be better able to develop programming to address institutional development needs as well as individual capacity-building.	Fully accepted	Partially met: there continues to be a need to address different capacities and needs among the centers
21. RECPnet: Become much more proactive and independent; formulate and design own programme and search for donor funding.	Fully accepted	Not met: there remains low ownership among network members and the network is financially dependent on UNIDO and Un Environment.
22. RECPnet global, regional chapters and/or thematic groups: provide UNIDO-UNEP with an independent programming of priorities and preferred activities.	Fully accepted	Partially met: issues remain with regards to the efficiency and effectiveness of the network
23. RECPnet: In the integral area of RCEP policy and innovation, formulate dedicated plans, transforming the spirit of the decision-making process into a joint effort.	Fully accepted	Partially met: members have not embraced thematic groups
24. RECPNet: With the objective of deepening ownership of and contribution to RECPnet, explore options and implications of establishing RECPnet as an institutional entity having the possibility to act in collective manner (e.g. in global/regional processes, tenders).	Partially accepted While giving RECPnet an independent legal status will deepen ownership and simplify a number of different administrative aspects, it must be cautioned against taking this step prematurely, before the long-term sustainability of the network can be guaranteed	Not met: network sustainability remains uncertain

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
25. Be more active in identifying and communicating to UNIDO and UNEP which activities and resources could strategically be leveraged in developing and strengthening the envisaged multiple roles of Centres (policy advocacy, service provision, centre of RECP excellence).	Fully accepted	Partially met
26. Elaborate a long-term strategy for the network, regions, and individual Centres with respect to the efficiency of projects funded by the RECP Programme and assess priority of involvement in these projects.	Fully accepted	Met
27. Form strategic alliances with a selection of the bio energy/climate innovation initiatives for improved effectiveness.	Partially accepted – While effective and useful synergies should be explored by the centres, they should also not spread their resources too thinly on ineffective partnerships	Not met: despite the existence of other networks in UNIDO, RECPnet continues to function with little interaction with them
28. Define what services based on the current portfolio of RECPnet projects have the highest potential for replication and/or synergy with other activities on the regional/individual level of the Centres.	Fully accepted	Partially met: working groups have low engagement from members
29. Make the network come alive: notice and seize opportunities for collaboration and joint activity.	Fully accepted	Partially met: low ownership of network by members remain
30. Develop dedicated tools for different levels of competence to achieve upscaling both by 'top' Centres and 'mid-field' Centres.	Fully accepted	Met
31. Develop thoughts and strategy regarding own policy role, focus on opportunities to influence framework conditions.	Partially accepted	Not met: while policy role is included in the strategy, the programme has provided very little support to policy related issues.

Recommendation by Midterm Evaluation	Manager Response	Terminal Evaluation <i>Ratings: Met / Partially met / Not met</i>
32. Insist on the inclusion of capacity-building for these aspects within existing and future programmatic activities.	Partially accepted – Capacity building is highly necessary for some centers, however, need to also consider whether this is core function of network, i.e. whether resources from RECPnet should be continually invested in this	Not met: new centers require of capacity development; the mature centers are in well qualified to support this process.
33. Develop a linked offering for technical and business innovation based on complementary UNIDO and UNEP approaches.	Fully accepted	Not met: the programmes of UNIDO and UN environment remain parallel for their most part
34. Review, use, and promote existing operational guidelines (UNIDO: April 2009, May 2010).	Fully accepted	Not met: no evidence was found of gender guidelines being used through the programme.
35. Identify areas in which gender has strategic relevance for the RECP topic; establish pilot activities to build knowledge	Fully accepted	Not met
36. Identify needs to develop a capacity-building strategy for working on these aspects	Fully accepted	Not met

Annex 4: List of Stakeholders Interviewed by the Evaluation Team

Global Stakeholders

Organization	Name	Position
UNIDO	Mr. Philippe Scholtes	Managing Director, Programme Development and Technical Cooperation (PTC)
UNIDO	Mr. Stephan Sicars	Director, Department of Environment
UNIDO	Ms. NilgunTas	Division Chief, Industrial Resource Energy Efficiency
UNIDO	Mr. SmailAlhilali	RECP Programme Manager, Industrial Resource Energy Efficiency
UNIDO	Mr. Hassan Mehdi	RECPnet Secretariat Coordinator
UNIDO	Mr. Michael Fegerl	RECPnet Knowledge System Specialist
UNIDO	Ms. Petra Schwager	Senior Industrial Development Officer, Industrial Resource Energy Efficiency
UNIDO	Mr. Patrick Nussbauer	Industrial Development Officer, Climate Policy and Networks Division Officer
UNIDO	Mr. Giuseppe De Simone	Strategic Planning Officer, Office of Strategic Planning and Coordination
UNIDO	Mr. Branko Dunjic	RECP Coordinator on Sound Chemicals Management
UNIDO	Mr. Cesar Barahona	Technical Advisor, Environment Branch
UNIDO	Ms. Julia Rohe	Quality Monitoring Officer, Quality Monitoring Division
UN Environment	Ms. Elisa Tonda	

Organization	Name	Position
SECO	Mr. Philipp Ischer	Programme Manager
Permanent Mission of Switzerland to the United Nations in Vienna	Ms. Katharina Frey	Counsellor
RECPnet Member - Egypt National Clean Production Center	Mr. Ali Abo Sena	
RECPnet Member - Clean Production Center Tanzania	Mr. Cleo Migiro	
RECPnet Member - Gujarat Cleaner Production Centre (India)	Mr. Bharat Jain	Member Secretary
RECPnet Member - Foundation for MSME Clusters (India)	Mr. Tamal Sakar	
RECPnet Member - Viet Nam Cleaner Production Centre (Vietnam)	Mr. Tran Van Nhan	
RECPnet Member - Centre for Resource Efficient and Cleaner Production (CRECPI) (Indonesia)	Mr. TjandraSeteadi	
RECPnet Member - Ukraine National Centre for Resource Efficient and Cleaner Production (RECPC)	Mr. Igor Shyloviych	
RECPnet Member - National Centre for Sustainable Production and Consumption (Romania)	Ms. Aida Azilagyi	
RECPnetMember - Centro Nacional de la Produccion Mas Limpia (CNPML) (Colombia)	Ms. Gloria Restrepo	Project Staff
RECPnetMember - Fundación Centro de Gestión Tecnológica e Informática Industrial (CEGESTI) (Costa Rica)	Ms. Daria Gomez	

Organization	Name	Position
RECPnet Member - National Cleaner Production Center (El Salvador)	Ms. Yollanda Zalazar de Tobar	
RECPnet Member - Centro Tecnológico para la Sustentabilidad (CTS) (Argentina)	Mr. Ariel Carbajal	
RECPnet Member - Fundación Centro Guatemalteco de Producción Más Limpia (CGP+L) (Guatemala)	Mr. Luis Munoz	
Independent	Mr. Frans Verspeek	Independent Consultant
University of Lausanne	Mr. Suren Erkman	Senior Expert on Eco-Industrial Parks (EIPs)

India Country Visit Stakeholders

Organization	Name	Position
UNIDO Regional Office	Mr. Rene Van Berkel	UNIDO Representative, Regional Office India
	Mr. Suresh Kennit	National Coordinator on RECP and EIP
Gujarat Cleaner Production Centre (GCPC)	Mr. Bharat Jain	Member Secretary
GCPC	Mr. Hiren Bhendwal	Senior Project Engineer
GCPC	Mr. Punamchandra Rathod	Senior Project Engineer
GCPC	Mr. Abhi Patel	Assistant Project Engineer
GCPC	Mr. Kashyap Arya	Assistant Project Engineer
Gujarat Industrial Development Corporation	Ms. Ratankanvar Gadhvicharan	Joint - Managing Director

Organization	Name	Position
Gujarat Industrial Development Corporation	Mr. BajrangWarli	Chief Engineer
Gujarat Petroleum, Chemicals and Petrochemicals Investment Regional Development Authority	Mr. Rohan Jain	Town Planner
Gujarat Petroleum, Chemicals and Petrochemicals Investment Regional Development Authority	Ms. Archita Patel	Junior Town Planner
Dahej SEZ Ltd.	Mr. Ankit Brahmakshatriya	Assistant Manager
Dahej SEZ Ltd.	Mr. Hitesh Jadav	Assistant Manager
Dahej SEZ Ltd.	Mr. Pranav Patel	CFO
Nandesari Industries Association	Mr. Babubhai Patel	President
Gujarat Pollution Control Board	Mr. Manoj Patel	Vigilance Officer
Nahar Pharma Chem Limited	Mr. Rajesh Dhabale	CEO
Common Effluent Treatment Plant	Mr. Sudhir Verma	CEO
Link Pharma Chem Ltd	Mr. Satish Thakur	Director
Link Pharma-Chem Limited	Mr. Nilesh Parsania	Production Incharge
Link Pharma-Chem Limited	Mr. Sanjeev	Lab Incharge
GSP Crop Science Limited	Mr. Jayesh Visavadia	EHS
Shiv Dye Stuff Limited	Mr. Kamlesh Palan	Director
Anil ColorChem	Mr. Bharat Shah	Director
Common Effluent Treatment Plant	Mr. Mayur Parekh	Incharge (QC)
Gujarat Cleaner Production Centre	Mr. Ravji Patolia	Expert
Dahej Industries Association	Mr. Magan Hania	President
Bharat Rasayan	Mr. Chetan Trivedi	EHS Head

Organization	Name	Position
Torrent Power	Mr. Subhendra Sharma	AGM
Gujarat Pollution Control Board	Mr. Falgun Modi	Deputy Environment Engineer
Reliance Industries Limited	Mr. Anand Sutaria	Environment Engineer
Accent Microcell	Mr. Kirit Trivedi	Manager HR
Accent Microcell	Mr. Chandrakant Ghogare	Manager Production
Accent Microcell	Mr. Naresh Chauhan	Manager Infra
Accent Microcell	Mr. Jayesh Prajapati	Manager QC
Accent Microcell	Mr. Prashant Shah	DGM
Bharuch Enviro Infrastructure Ltd	Mr. Kirti Sethna	Manager Process
Bharuch Enviro Infrastructure Ltd	Mr. Rajesh Mistry	Manager Project
Common Effluent Treatment Plant	Mr. Jatin Patel	Manager
BDRCL	Mr. Amit Parmar	Manager Operations
Fermenta Biotech	Mr. Ashish Joshi	Assistant Manager EHS
Fermenta Biotech	Mr. Radhakrishna Gadakh	Senior Manager Production
Fermenta Biotech	Mr. Shitul Patel	Executive HR
Fermenta Biotech	Mr. Vishal Prajapati	Executive Safety
GACL	Mr. Manhar Patel	Head EHS
GACL	Mr. Dinesh Thakur	GM Plant head
GACL	Mr. Tilak Trivedi	GM process
GACL	Mr. Rajesh Patil	AGM Process
GACL	Mr. Hitendra Salot	AGM Engineering
GACL	Mr. Amrit Rathod	GM projects
CII - Sohrabji Godrej Green Business Centre	Mr. Kiran Ananth	Principal Counsellor

Organization	Name	Position
CII - Sohrabji Godrej Green Business Centre	Mr. Muralikrishnan K.	Senior Counsellor
CII - Sohrabji Godrej Green Business Centre	Mr. Atik Sheikh	Associate Counsellor
CII - Sohrabji Godrej Green Business Centre	Mr. K. S. Venkatagiri	Executive Director
CII - Sohrabji Godrej Green Business Centre	Mr. S. Srinivas	Deputy Executive Director
CII - Sohrabji Godrej Green Business Centre	Mr. S. Karthikeyan	Principal Counsellor
CII - Sohrabji Godrej Green Business Centre	Mr. N. Muthusezhiyan	Principal Counsellor
CII - Sohrabji Godrej Green Business Centre	Mr. M. Anand	Principal Counsellor
CII - Sohrabji Godrej Green Business Centre	Ms. Nisha Jayaram	Counsellor
Excel Woven Sacks Pvt Ltd	Mr. Ramakrishna K.	Managing Director
Excel Woven Sacks Pvt Ltd	Mr. Pratap Reddy	Manager
Vasudha Pharma Chem Limited	Mr. Prasada Raju	Factory Manager
Vasudha Pharma Chem Limited	Mr. Murali K.	Deputy Environment Manager
Bhavani Metals	Mr. Bhavani Prasad	Director
Jeedimetla Common Effluent Treatment Plant	Mr. Bakka Reddy Patil	Executive Director
Jeedimetla IALA	Mr. Satayanarayana K.	Commisioner

South Africa Country Visit Stakeholders

Organization	Name	Position
SECO Country Office in South Africa	Ms. Davorka Shepherd	
	Ms. RumbidzaiBiza	
UNIDO Regional Office	Mr. Khaled El Mekwad	UNIDO Representative
South Africa National Cleaner Production Centre (NCPC-SA)	Mr. NdivhuhoRaphulu	Director
NCPC-SA	Mr. Alfred Hartzenburg	National Project Manager: IEEP
NCPC-SA	Mr. Victor Manavhela	Senior Regional Manager: Pretoria Office
NCPC-SA	Mr. Wynand Van der Merwe	Skills Development Manager
NCPC-SA	Ms. Julie Wells	Marketing and Comms Manager
NCPC-SA	Mr. Kevin Cilliers	Senior Regional Manager: Durban Office
NCPC-SA	Mr. Lee-HendorRuiters	Senior Regional Manager: Cape Town Office
WDC Consulting Services	Ms. Wendy Da Cruz	Owner and Lead Consultant
VWG Consulting	Mr. Craig Van Wyk	Owner and Lead Consultant
Department of Trade & Industry	Mr. Gerhard Fourie	Chief Director: Renewable Energy & Energy Efficiency
Hotel 224	Mr. DivNel	Managing Director
Department of Energy	Mr. XolileMabusela	Chief Director: Clean Energy
Department of Environmental Affairs	Mr. TlouRamaru	Chief Director
University of Johannesburg	Mr. Sydney Du Plessis	Senior Lecturer

Organization	Name	Position
Mesereti	Mr. Sisa Njikelana	Business owner
Consol Glass	Mr. Alessandro Mayes	Utility Manager
Ecomatch	Mr. Craig Allen	
DNS Consulting	Mr. Chris Swart	Business Development Manager
ArcelorMittal Steel	Mr. Louis Bosch	Energy Manager
Sappi Group	Mr. Merten Jansen Van Rensburg	Group Operations Manager
Johnson Matthey	Mr. Jacques Puckle	General Manager

Colombia Country Visit Stakeholders

Organization	Name	Position
Colombia National Cleaner Production Centre (CNPML)	Mr. Carlos Arango	Director
CNPML	Ms. Beatriz Lodono	Co-Director
CNPML	Mr. Carlos Codavid	Co-Director
CNPML	Ms. Adriana Alzate	Co-Director
CNPML	Mr. Gregorio Correa	Co-Director
CNPML	Ms. Gloria Restrepo	Project Staff
Quimica Central	Ms. Adriana Agudelos	Manager
Pinturas Azteca	Ms. JesicaAbelares	Owner
Pinturas Azteca	Mr. Gonzalo Arbelares	Owner

Organization	Name	Position
La Arboleda	Mr. Rigoberto Franco	Owner
Farmer	Mr. Dario Escobar	Owner
Co-Op Andes	Mr. Rogelio Gomez	Delegate, Co-Op Andes
Metropolitan Authority	Mr. Carlos Salar	Environment
Metropolitan Authority	Ms. Camila Jirald	International Relations
Metalcolor	Ms. Lina Ma. Martinez	Manager
CNPML	Ms. Matalia Chavarria	Project Staff

Peru Country Visit Stakeholders

Organization	Name	Position
National Society of Industries	Ms. Rosa Ma. Del Castillo	Environment
Pontifica Universidad Catolica de Peru	Ms. SaydaMujica	Professor
Cooperativa Agraria Rodriguez Mendoza de Café -COOPARM	Ms. Carmencita Torres	Manager
GEA	Ms. Cristina Marchena	Project Coordinator
GEA	Ms. Ana Terrazos Aguilar	Executive Director
GEA	Ms. Marice Salvador Alejos	President
SECO	Ms. Patricia Tord	Programme Officer
SECO	Mr. Martin Peter	Director of Cooperation
Ministry of Environment	Ms. Vilma Morales	Director, Pollution Control

Organization	Name	Position
Ministry of Environment	Mr. Marcos Alegre	Vice Minister
Universal Collors	Mr. Boris Julca	Lab Manager
AMFA VITRIUM	Ms. Lucia Trujillo	General Manager
AMFA VITRIUM	Ms. LizbetHuayllaniHuaranca	Production
AMFA VITRIUM	Mr. Andy Echeverria	Chief Production
Exporters Association	Ms. Maria Elena Barreto	Chemicals Adviser
Exporters Association	Ms. Luz Barreto	Project Managers and International Cooperation

Annex 5: References and documents reviewed

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Annex 6: Terms of References for the Evaluation



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

DRAFT

Terms of Reference

Independent Evaluation of

**The Global UNIDO-UNEP Resource Efficient and Cleaner Production (RECP)
Programme for developing and transition countries**

UNIDO Project No.: 100050

May 2017

I. PROGRAMME BACKGROUND AND CONTEXT

The United Nations Industrial Development Organization (UNIDO) is the specialized intergovernmental organization that supports Inclusive and Sustainable Industrial Development (ISID) in developing and transition countries. Its areas of intervention are industrial resource efficiency and sustainable production, trade capacity building and productive capacity building. Resource Efficient and Cleaner Production (RECP) is an exemplary intervention area aimed at mobilizing enterprises, in particular small and medium sized enterprises (SMEs) from the manufacturing and related productive sectors to 'green' their operations and become more efficient in their use of natural resources (materials, energy and water) and less polluting (in terms of generation and discharges of waste water, waste and emissions).

UNIDO cooperates with sister agencies in the UN system and other development partners on implementation of green industry, green growth and green economy. In particular, UNIDO has been working with the United Nations Environment Programme since 1994 to support the establishment and operation of a National Cleaner Production Centres (NCPCs) and related initiatives in developing and transition countries globally.

Resource Efficient and Cleaner Production applies preventive environmental management techniques and total productivity practices with the triple aims of; (1) resource productivity (productive use of all natural resources (materials, energy and water) by enterprises); (2) waste minimization (minimizing the generation of wastes, effluents and emissions from enterprises); and (3) people's well-being (reducing the risks of business operations to workers, consumers and communities). Experiences from 1000s of enterprises globally representing all key manufacturing and related productive sectors have demonstrated that adopting RECP can be good for business, environment and climate, and ultimately development at large ⁽⁵³⁾.

Taking into consideration the findings, lessons learned and recommendations from the Independent Evaluation of the UNIDO-UNEP National Cleaner Production Centres (NCPCs) during 2007 (54), UNIDO and UNEP drafted the strategy and proposal for their joint RECP Programme, which was approved for implementation in early 2009. The Programme is de facto implemented as an aggregate of different projects that have each been designed in accordance with the programme strategy. It is one of the first UNIDO interventions that follow a programmatic approach, being defined as a set of interlinked individual sub-projects, unified by an overarching vision, common objectives and contribution to strategic goals, which will deliver environmental and developmental results efficiently, effectively and at scale.

UNIDO in particular implements a set of projects that each address specific country needs and thematic and/or sectoral priorities. Some such projects have been National Cleaner Production Programmes in Albania, Indonesia, Mauritius, Republic of Moldova, Serbia, Sri Lanka, Tunisia and Ukraine, and regional RECP demonstration programmes in Eastern and South Eastern Europe) ⁽⁵⁵⁾. In

⁵³ See e.g.: *Taking Stock and Moving Forward: the UNIDO-UNEP National Cleaner Production Centres*, UNIDO, 2010; *National Cleaner Production Centres – 20 years of achievement*, UNIDO, 2015

⁵⁴ See, UNIDO, Independent Evaluation of National Cleaner Production Centres Programme, UNIDO/UNEP, 2008.

⁵⁵ Independent evaluations have since been completed for National Cleaner Production Programmes in Sri Lanka, Cambodia, Lao, Moldova and Tunisia (final evaluations), Viet Nam (impact evaluation on NCPC and interim evaluation of EIP Project) and Ukraine and Indonesia (mid-term). In addition thereto, selected spin off projects have been separately evaluated, including for example pilot projects on Corporate Social Responsibility and Green Handicrafts (both in Viet Nam) and RECP activities have been considered in recent UNIDO

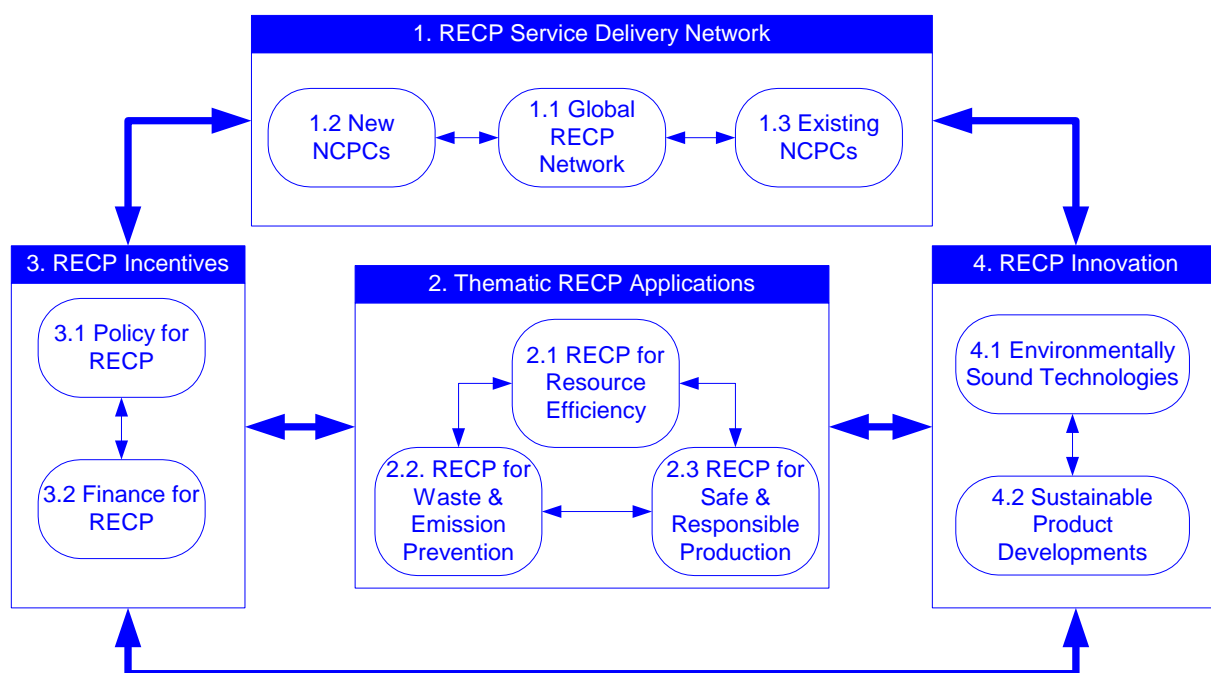
parallel, UNEP designed and continued to implement global thematic projects, in particular in areas like resource efficiency in small and medium enterprises, responsible production, sustainable tourism, eco-innovation, etc. Moreover, third parties have implemented project activities in consultation with UNIDO that further support the aims and objectives of the global RECP programme (for example GIZ worked using its own resources and implementation modalities on training and capacity building for improved management and institutionalization of RECP service providers). Furthermore, multiple donors have utilized the capacities of the NCPCs and other members of RECPnet in the implementation of their respective programmes, including for example activities under Marrakech process and associated 10 year framework of programmes on SCP, and the EU's SWITCH suite of projects. Whilst the latter were generally supportive towards the overall aims and objectives of the joint global UNIDO UNEP RECP programme, such activities were not explicitly programmed from the perspective of the intervention framework of the RECP Programme.

The objective of the global UNIDO-UNEP RECP Programme is to improve resource productivity and environmental performance of businesses and other organizations and thereby contribute to the promotion of sustainable industrial development and Sustainable Consumption and Production (SCP) in the participating countries. The Programme includes four intermediate outcome categories each of which contribute towards the overarching outcome, both individually as well as synergistically.

1. *RECP Service Delivery Network*: RECP services delivery capacity enhanced, through NCPCs/NCPPs and other RECP service delivery mechanisms, leading to effective networking and peer learning within a network of competent nationally-directed initiatives that deliver quality and value-adding RECP services which respond to the needs of enterprises and other organizations;
2. *Thematic RECP Applications*: Implementation of RECP by businesses and other organizations with verified resource use, environmental, economic and other societal benefits;
3. *RECP Incentives*: Mainstreaming of RECP in relevant government policy, regulations and enterprise finance, leading to an effective enabling environment for businesses to implement RECP; and
4. *Innovation Capacity*: Strengthening of national capacities for implementation of Environmentally Sound Technologies and sustainable product developments.

The Programme is further structured into a total of ten outputs as illustrated in following figure. The full logical framework is included as annex 1.

country evaluations (e.g. in Kenya, Indonesia). It is foreseen that programmatic findings, lessons learnt and recommendations from these complementary evaluations are being considered and integrated in the present global programmatic evaluation. For listing of all UNIDO led independent evaluations, please see: <http://www.unido.org/en/resources/evaluation.html>



The Government of Switzerland, through the State Secretariat for Economic Affairs (SECO), confirmed funding support to UNIDO to the total value of CHF 14.6 million (around Euro 13.72 million, excluding Programme Support Costs) for five-year period between 2012-2016 for implementation of global programmatic activities under the global RECP Programme.

Programme Outputs	Details	Budget (million)	
		CHF	Euro
1.1: RECP Network	Active network of RECP Services' Providers established, network members recruited and a programme of networking, learning and information sharing activities in place that addresses the needs of different members	1.5	1.41
1.3: RECP Scaling Up	Existing NCPCs/NCPPs supported in regard to scaling-up of their activities and impacts and their further institutionalization and professionalization	4.05	3.81
2.2 RECP for Waste and Pollution Prevention	Thematic projects on RECP for waste and pollution prevention developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services' Providers	3.15	2.96
2.3: RECP for Safe and Responsible Production	Thematic projects on RECP for safe and responsible production developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services' Providers	2.9	2.73
3.2: RECP Financing	Flexible framework of guidelines and instruments for mainstreaming RECP in enterprise financing developed, trialled and evaluated in selected countries, methods and results widely disseminated through the network of RECP Services' Providers, and capacity built of financial sector and business services' providers to avail and utilize appropriate financing options for RECP-investments	3	2.82
Total budget		14.6	13.72

The Letter of Agreement between SECO and UNIDO (dated 15th November 2011) specified priorities that were subsequently amended:

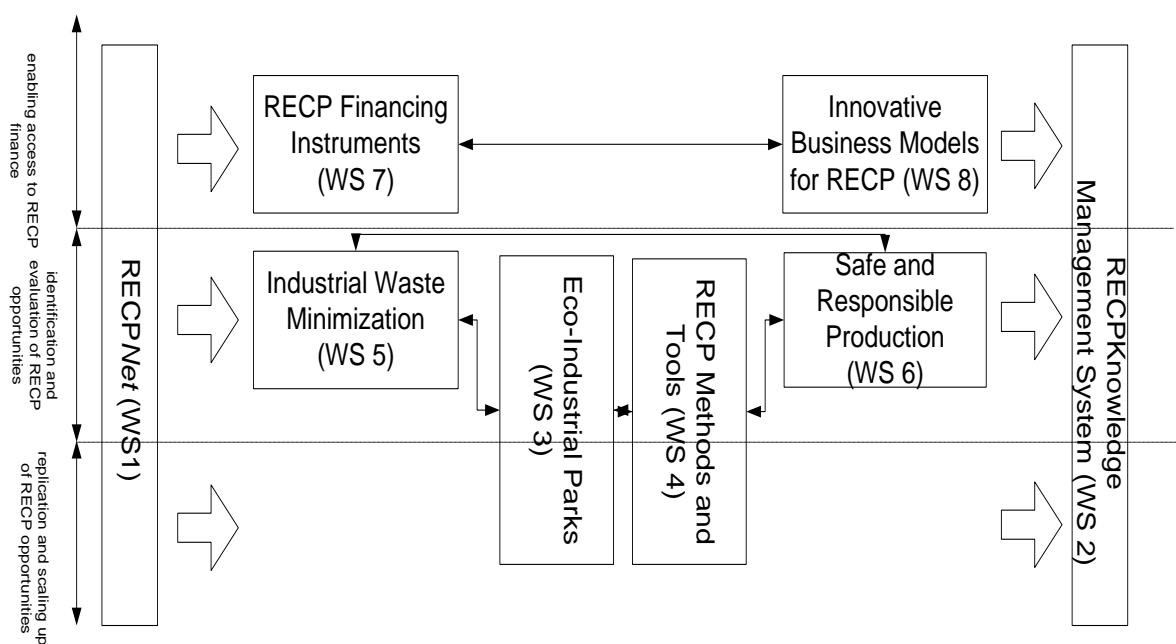
- *Geographically*, implementation of in-country pilot activities under the present programmatic funding is focused on 14 short-listed priority countries, respectively: Cambodia, China, Colombia, Costa Rica, Egypt (from 2012), El Salvador, Guatemala, India, Jordan, Morocco, Peru, South Africa, Tunisia (from 2016) and Viet Nam.
- *Thematically*, the financial support is limited to support programme outputs 1.1 (global RECP network, total net allocation 1.5 million CHF), 1.3 (up-scaling of RECP, total net allocation of 4.05 million CHF), 2.2 (RECP for industrial waste minimization, total net allocation of 3.15 million CHF), 2.3 (RECP for safe and responsible production, total net allocation of 2.9 million CHF) and 3.2 (RECP financing, total net allocation of 3.0 million CHF). The detailed descriptions of these programme level outputs are for ease of reference summarized in the table above.

Considering the above priorities and initial regional consultations with founding members of the global RECP network and specifically with the target countries during 2010-2012, it was agreed in early 2012 that the UNIDO workplan for programmatic RECP activities would be further structured in eight workstreams, linked to the five programmatic outputs currently supported by SECO and other programmatic donors for RECP Programme. These eight workstreams are:

1. Operational Support for RECPnet (contributing to output 1.1): aimed at implementation of the work plan of RECPnet, under the guidance of its elected Executive Committee, which prioritized consolidation (and where possible extension) of membership base, service delivery to members and advocacy (including connecting RECPnet with global initiatives, such as Green Industry Platform, Green Growth Knowledge Platform (GGKP), 10 Year Framework of Programmes on Sustainable Consumption and Production (10 YFP SCP), Partnership for Action on Green Economy (PAGE) , and related green economy/growth initiatives);
2. Knowledge Management (contributing to output 1.1): building upon the (software) platform that was developed and piloted for the Arab region, expanding and operationalizing formal knowledge management at the global level, and thereby amongst others also map and make available the information and knowledge of the network members (including e.g. their manuals, case studies, etc.);
3. Eco-Industrial Parks (contributing to output 1.3): aimed at geographically scaling-up RECP applications in clusters/zones of co-located enterprises (industrial zones or export processing zones), through both enterprise level opportunities ('traditional' CP focus) and cluster-level opportunities (for multiple enterprises, also known as *industrial ecology* or *industrial symbiosis*);
4. Methods and Tools (contributing to output 1.3): aimed at scaling up the application of RECP within industry sectors through the development and trial of best practice and novel methods, tools and policy instruments, including e.g. manuals, resource packages, etc.;
5. Industrial Waste Minimization for Low Carbon Production (contributing to output 2.2): aimed at developing, promoting and implementing zero waste practices and technologies in waste-intensive sectors of industry, in particular those producing organic wastes and processing residues from which valuable components or energy could be recovered (biomaterials, bio-energy, etc.). Moreover, under this workstream establishment of the industry-programme under the Climate Technology Centre and Network (CTCN) was supported to further the transfer and development of climate technologies in manufacturing and associated productive sectors;

6. Safe and Responsible Production (contributing to output 2.3): aimed at developing, promoting and implementing safe and environmentally sound practices and technologies for chemical-intensive sectors of industry, including synthesis, formulation and (industrial) application of chemical substances and products. The necessary management systems and business models for implementation of specific solutions will also be considered;
7. Financing Instruments (contributing to output 3.2): aimed at assessing and promoting innovative financing instruments for mainstreaming RECP into enterprise finance, including for example: incentive grants, subordinated loans, leasing, etc. (often all clubbed together under 'green' financing instruments); and
8. Innovative Business Models (contributing to output 3.2): building upon the findings and achievements of the global programme on chemical leasing (an example of a service-oriented business model that enables the application of RECP practices and technologies), activities aimed at promotion of service-based business models that would reduce the investment burden on SMEs for accessing and implementing innovative RECP practices and technologies.

The inter-relatedness between the work-stream is illustrated in the figure below.



The table overleaf matches the work streams with countries where respective pilot activities have been initiated and supported.

Work stream	Target Countries		
	Contributions to knowledge capture	Hosting pilot activities	
		Under present Project	Funded otherwise
1. Operational and secretarial support to RECPnet, including convening of global and regional networking meetings	All	n/a	Colombia, Egypt, Kenya, Mexico, Morocco, Peru, Rwanda, Serbia, South Africa, Sri Lanka, Uganda, Ukraine, Viet Nam ⁽⁵⁶⁾
2. RECP knowledge management	All	n/a	n/a
3. Eco-Industrial Parks	Cambodia, China, Colombia, Costa Rica, Egypt, El Salvador, India, Morocco, Peru, South Africa, Viet Nam	China, India, Peru	Indonesia, Tunisia and Viet Nam
4. RECP Methods and Tools	n/a	China and India	Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine ⁽⁵⁷⁾
5. Industrial Waste Minimization	all	Cambodia, China, Columbia, Peru and Viet Nam	n/a
6. Innovative Chemical Solutions	all	Colombia, Egypt, El Salvador, Morocco, and Peru	n/a
7. RECP financing	all	n/a	Georgia, Indonesia, and Ukraine
8. Innovative Business Models	all	n/a	Brazil, Colombia, Croatia, Ecuador, Egypt, Mexico, Nicaragua, Peru, Serbia and Sri Lanka

Mid-term evaluation and expenditure so far

The independent mid-term evaluation of the global RECP Programme took place between June and October 2015. It found that the programme design was highly complex and went through many shifts, evolving from its original multilateral design to being supported by a single donor, without much adaptation of its logframe. It was relevant to the target beneficiaries in participating countries but expectations were primarily met only for those funded. The programme's efficiency was moderate, experiencing delays in many activities, except work stream 6 whose outcomes were delivered efficiently. The effectiveness and progress toward impact was low to moderate, but potential results in several work streams were high. The programme management was technically

⁵⁶ Focused on human capacity development for management and operation of RECP service provider, under joint project implemented by GIZ.

⁵⁷ Under EU funded regional project on greening of economies of the Eastern Partnership countries. The TEST methodology is applied as pilot under the SWITCH Med programme

competent and highly dedicated, but too much attention was put to detailed and hands-on operations instead of strategic management of changes in scope and timelines. In addition, UNIDO team was understaffed and overloaded, and complex and time-consuming administrative issues aggravated the problems. The status of implementation of the key evaluation recommendations is in the Management Response Sheet of the mid-term evaluation.

By 30 April 2017, around EUR 8.9 million ⁽⁵⁸⁾ had been expended (excluding PSC), accounting for around 65% of the planned budget. In late April 2017, a request to extend the programme till the end of 2018 was approved. The breakdown of expenditures is provided in the following table.

Financial Status as of <u>30 April 2017</u>	Released budget		Expenditure		Expenditure against original budget (%)
	CHF	EUR	CHF	EUR	
Output 1.1 RECP Network				1,956,326	139
WS1: Operational support RECPnet (100050-1-01-01)	1,491,297	1,378,915	1,338,797	1,237,908	
WS2: RECP Knowledge Management System (100050-1-01-02)	846,434	782,648	776,969	718,418	
Output 1.3 Scaling up RECP				2,171,217	57
WS3: Eco-Industrial Parks (100050-1-01-03)	2,310,688	2,136,558	1,732,559	1,601,996	
WS4: RECP methods and tools (100050-1-01-04)	675,960	625,021	615,613	569,221	
Output 2.2 RECP for Waste and Emission Prevention				2,185,376	74
WS5: Industrial Waste Minimization (100050-1-02-01)	2,400,806	2,219,886	2,363,484	2,185,376	
Output 2.2. Safe and Responsible Production				1,929,531	71
WS6: Innovative Chemical Solutions (100050-1-02-02)	2,187,461	2,022,617	2,086,787	1,929,531	
Output 3.2: RECP financing				324,268	11
WS7: RECP financing instruments (100050-1-04-01)	320,307	296,169	81,929	75,755	
WS8: Innovative Business Models (100050-1-04-02)	366,570	338,946	268,767	248,513	
Output: Evaluation					
Evaluation (100050-1-53-01)	116,623	107,834	47,936	44,323	
Output: 3% psc					
3% psc (100050-1-54-01)	371,977	343,946	270,221	249,858	
Total	11,088,123	10,252,594	9,621,995	8,896,897	65

Source: SAP database, UNIDO Project Manager

Note: UN Exchange rate as of 8 May 2017: 1 Euro = CHF 1.0815

II. EVALUATION PURPOSE

Given the fact that the Global RECP programmes is one of the first UNIDO interventions following a 'programmatic approach' and that a future programme building up on this programme and some other interventions following 'programmatic approach' are being developed, an independent evaluation of the Global RECP programme will take place between May and October 2017. The evaluation will be forward-looking to feed learning from the past into future programme development, implementation and management.

The purpose of the evaluation is to independently assess the Global RECP Programme to help UNIDO improve performance and results of future programmes and projects.

⁵⁸ Funding is provided by SECO in CHF, yet converted into EUR upon receipt at applicable bank rates at respective dates of funds transfer.

The evaluation has three specific objectives:

- (i) Assess the programme performance in terms of relevance, effectiveness, efficiency, sustainability and progress to impact;
- (ii) Identify key learning to feed into the design and implementation of the forthcoming programmes; and
- (iii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing programmes and projects by UNIDO.

III. EVALUATION SCOPE AND FOCUS

In view of the limited time and resources available, it is not possible for the evaluation to examine the full spectrum of the programme activities, achievements and drawbacks or conduct extensive quantitative surveys. Rather the evaluation will pursue a stratified approach with selected country visits and, if possible, complemented with a survey (to be determined at inception phase).

Taking into account the forward-looking nature, the evaluation will focus on: 1) in-depth study of the countries with eco-industrial parks that will be the centre of the future programme; and 2) the causal pathways to reach expected outcomes and impact.

Four countries have been selected for field visits are Colombia, Peru, India and South Africa. They are selected based on the following criteria: geographic balance, key interventions on Eco-Industrial Parks which is the focus of the future programme, and a mixture of countries that were and were not visited by the Mid-Term Evaluation⁵⁹.

The independent evaluation will cover the whole duration of the programme from its starting date in December 2011 to August 2017.

IV. EVALUATION METHODOLOGY, KEY CRITERIA AND RATING

The evaluation will be conducted in accordance with the UNIDO Evaluation Policy⁶⁰. It will be carried out as an independent evaluation using participatory approach whereby key stakeholders will be regularly consulted and informed throughout the evaluation process.

In line with its objectives, the evaluation will have two main components. The first component focuses on an overall **assessment of performance** of the programme, whereas the second focuses on the **learning** from the successful and unsuccessful practices in programme design and implementation.

Methodology. The evaluation will use theory of change approach and mixed methods to collect data and information from a range of sources and informants. It will pay attention to triangulating the data and information collected before forming its assessment. This is essential to ensure an evidence-based and credible evaluation, with robust analytical underpinning.

⁵⁹ Countries that were visited by the MTE were China, Egypt and Peru.

⁶⁰ UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1)

As the programme's logframe has not been adapted to reflect the results chain of the interventions funded by SECO, the evaluation team will reconstruct the theory of change for the actual programme. The theory of change will identify causal and transformational pathways from the programme outputs to outcomes and longer-term impacts, and drivers as well as barriers to achieve them. While it is early to determine the actual impact of the Global RECP programme at this stage, the theory of change analysis will help determine the progress to impact. The learning from this analysis will be useful to feed into the design of the future programmes so that the management team can effectively manage them based on results.

Following are the main instruments for data collection and analysis:

1. **Desk and literature review** of documents related to the programme, including independent evaluation reports and performance rating of projects within the programmes (e.g. the Mid-term evaluation of the Global RECP programme, Mid-term evaluation of the Eco-Industrial Parks Project in Vietnam and the RECP Programme in Indonesia, and other relevant studies on RECP.
2. **Stakeholder consultations** will be conducted through structured and semi-structured interviews and focus group discussion. Key stakeholders to be interviewed include: i) UNIDO Management and staff involved in the programme and ii) representatives of SECO.
3. **Field visit.** The evaluation team will visit Colombia, Peru, India and South Africa and interview national stakeholders and project staff in the countries.

Evaluation key questions and criteria. The evaluation has the following key questions:

1. What are the key drivers and barriers to achieve the long term objectives? To what extent has the program helped put in place the conditions likely to address drivers, overcome barriers and contribute to the long term objectives?
2. How well has the programme performed? Has the Global RECP programme done the right things? Has the programme done things right, with good value for money?
3. What have been the programme's key results (outputs, outcome and impact)? To what extent have the expected results been achieved or are likely to be achieved? To what extent the achieved results will sustain after the completion of the programme?
4. What lessons can be drawn from the successful and unsuccessful practices in designing, implementing and managing the programme?

The evaluation will assess the likelihood of sustainability of the programme results after the programme completion. The assessment will identify key risks (e.g. in terms of financial, socio-political, institutional and environmental risks) and explain how these risks may affect the continuation of results after the programme ends.

Below are the key evaluation criteria to be assessed by the evaluation. The details questions to assess each evaluation criterion are in annex 2.

#	<u>Evaluation criteria</u>	<u>Mandatory rating</u>
A	Progress to impact	Yes
B	Programme design	Yes
1	• Overall design	Yes
2	• Logframe	Yes
C	Programme performance	Yes
1	• Relevance	Yes
2	• Effectiveness	Yes
3	• Efficiency	Yes
4	• Sustainability of benefits	Yes
D	Cross-cutting performance criteria	Yes
1	• Gender mainstreaming	Yes
2	• M&E: ✓ M&E design ✓ M&E implementation	Yes
3	• Programme management	Yes
E	Performance of partners	No
1	• UNIDO	
2	• National counterparts, RECPnet members, and RECP experts pool (international experts that were partnered with RECPnet members)	
3	• Donor	
F	Overall programme achievement	Yes

Rating system. In line with the practice adopted by many development agencies, the UNIDO Independent Evaluation Division uses a six-point rating system, where 6 is the highest score (highly satisfactory) and 1 is the lowest (highly unsatisfactory).

Score	Definition	Category
6	Highly satisfactory Level of achievement clearly exceeds expectations and there is no shortcoming.	SATISFACTORY
5	Satisfactory Level of achievement meets expectations (indicatively, over 80-95 per cent) and there is no or minor shortcoming.	
4	Moderately satisfactory Level of achievement more or less meets expectations (indicatively, 60 to 80 per cent) and there are some shortcomings.	
3	Moderately unsatisfactory Level of achievement is somewhat lower than expected (indicatively, less than 60 per cent) and there are significant shortcomings.	UNSATISFACTORY
2	Unsatisfactory Level of achievement is substantially lower than expected and there are major shortcomings.	
1	Highly unsatisfactory Level of achievement is negligible and there are severe shortcomings.	

V. EVALUATION PROCESS

The evaluation will be conducted from May to October 2017. The evaluation will be implemented in five phases which are not strictly sequential, but in many cases iterative, conducted in parallel and partly overlapping:

- i. Inception phase: The evaluation team will prepare the inception report providing details on the methodology for the evaluation team and include an evaluation matrix of specific issues for the evaluation.
- ii. Desk review and data analysis
- iii. Interviews, focus groups, survey and literature review
- iv. Country visits
- v. Data analysis and report writing

Tentative timetable for the independent evaluation is as follows:

Timing	Tasks
May – June 2017	Desk review and writing of inception report
3 – 10 June 2017	Inception phase
✓ 3-6 June	✓ Helsinki (interviewing key members of RECPnet at the ExCom meeting)
✓ 7-9 June	✓ Vienna: briefing with UNIDO and SECO
✓ 9 or 12 June (tbc)	✓ Vienna: Inception meeting (with Strategic Learning Partnership members)
26 June – 13 August 2017	Field visit: India, South Africa, Colombia and Peru
14 Aug– 1 Sep 2017	Preparation of first draft evaluation report
12 Sep 2017	Evaluation debriefing in Vienna: to the Strategic Learning Partnership members & UNIDO staff
14 Sep 2017	Debriefing in Bern: to SECO (at the same time with the SECO-UNIDO strategic meeting).

September 2017	Internal peer review of the report by the Independent Evaluation Division
October 2017	Draft evaluation report shared with stakeholders and SECO for comments
End of October 2017	Finalization and dissemination of the report

VI. EVALUATION TEAM AND STRATEGIC LEARNING PARTNERSHIP

Evaluation team. The evaluation will be conducted by a team of three independent external consultants: A team leader, who is a senior evaluation expert; a senior team member, who is a RECP expert; and a team member, who is a junior consultant and provides research assistance to the evaluation team. The evaluation team members would be composed with relevant strong experience and skills on evaluation management and conduct together with expertise and experiences in RECP. Their Job Description is presented in annex 3.

According to UNIDO Evaluation Policy, ‘the members of an evaluation team must not have been directly responsible for the policy-setting, design or overall management of the subject of evaluation (nor expect to be so in the near future)’.

An evaluation manager from UNIDO Independent Evaluation Division (IEV) will provide technical backstopping to the evaluation team and ensure the quality of the evaluation. The UNIDO Project Manager of the Programme, Project Managers of sub-projects and management of RECP Service Providers and project teams in India, South Africa, Colombia and Peru will act as resourced persons and provide support to the evaluation team and the evaluation manager.

Strategic Learning Partnership (SLP) Group. To enhance the quality of and learning from the evaluation, a Strategic Learning Partnership group, consisting of key stakeholders of the Global RECP Programme from UNIDO and SECO, will be formed. The SLP will serve as a platform for effective and real time transfer of knowledge and learning from the evaluation among UNIDO staff from the three technical departments, who have been working with SECO. The interaction among the SLP members will help identify lessons and recommendations that are most appropriate to improve performance and results, anticipate how the evaluation partners will use the lessons and recommendations and increase their commitment to implement them afterwards.

The SLP is an informal and flexible platform for partnership, open deliberations and learning among the key evaluation stakeholders, where technical knowledge and good practices on designing and implementing programmatic approach can be shared among the Department of Environment (ENV), Department of Energy (ENE), Department of Trade, Investment and Innovation (TII) and SECO. This process will also help identify systematic and strategic issues in the Switzerland-UNIDO partnership.

The SLP will review major deliverables produced during the evaluation process and provide information, data and feedback to facilitate the evaluation. The SLP members collaborate on the evaluation Inception Report which outline key evaluation design issues; discuss findings, conclusions and recommendations at the evaluation debriefing; and finally discuss and agree on lessons learned and recommendations and next steps to take in implementation. The SLP members are expected to meet two times during the evaluation process tentatively on:

9 or 12 June 2017 (tbc)	Inception report
12 Sep 2017	Evaluation debriefing

Following are the members of the SLP:

#	Name	Title and Organization
1.	Mr. Stephan SICARS	Director, Department of Environment (PTC/ENV), UNIDO
2.	Ms. Nilgun TAS	Chief, Industrial Resource Efficiency Division (PTC/ENV/IRE), UNIDO
3.	Mr. Smail ALHILALI	Industrial Development Officer, PTC/ENV/IRE, UNIDO – Manager of the Global RECP Programme
4.	Ms. Petra SCHWAGER	Industrial Development Officer, PTC/ENV/IRE, UNIDO – Manager of the RECP in Peru
5.	Mr. Philipp ISCHER	Program Manager, Trade Promotion, Economic Cooperation and Development, SECO
6.	Mr. Philippe SCHOLTES	Officer-in-Charge, Department of Energy (PTC/ENE), UNIDO – Managing Director, PTC
7.	Mr. Patrick NUSSBAUMER	Industrial Development Officer, Climate Policy and Networks Division (PTC/ENE/CPN), UNIDO – ENE Focal point for Switzerland-UNIDO partnership
8.	Mr. Bernardo CALZADILLA-SARMIENTO	Director, Department of Trade, Investment and Innovation (PTC/TII), UNIDO
9.	Mr. Steffen KAESER	Chief, Standards and Trade Facilitation Division (PTC/TII/STF), UNIDO
10.	Mr. Juan Pablo DIAZ CASTILLO	Industrial Development Officer, PTC/TII/STF, UNIDO – TII Focal point for Switzerland-UNIDO partnership
11.	Mr. Jean-Paul LANDRICHTER	Officer-in-Charge, Strategic Donor Relations Division (EFR/ETR/SDR), UNIDO – SDR Officer for Switzerland-UNIDO partnership
12.	Ms. Thuy Thu LE	Evaluation Officer, Independent Evaluation Division, UNIDO

VII. QUALITY ASSURANCE

All UNIDO evaluations are subject to quality assessments by the UNIDO Independent Evaluation Division. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process by the UNIDO, ODG/EVQ/IEV, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report by UNIDO, ODG/EVQ/IEV).

The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as Annex 3. The applied evaluation quality assessment criteria are used as a tool to provide structured feedback. UNIDO, ODG/EVQ/IEV should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these

terms of reference. The draft and final evaluation report are reviewed by the UNIDO Independent Evaluation Division, who will circulate it within UNIDO and relevant stakeholders together with a management response sheet.

VIII. ANNEXES

Annex 1: Logical Framework

Annex 2: Detailed questions to assess key evaluation criteria

Annex 3: Job descriptions for team member(s)

Annex 4: Checklist on evaluation report quality

Annex 5: Guidance on integrating gender in evaluations of UNIDO Programmes and projects

ANNEX 1: LOGICAL FRAMEWORK

The following is the full logical framework of the global RECP Programme. Taking into consideration that the present SECO funding for the RECP programme is limited to selected outputs, in the presentation of the logframe the most relevant elements for the Swiss contribution are highlighted in bold.

Narrative Summary	Indicators	Means of Verification	Assumptions
Objective			
<p>Programme objective:</p> <p>To improve resource productivity and environmental performance of businesses and other organisations and thereby contribute to sustainable industrial development and sustainable production and consumption in particular at the national levels in the participating countries</p>	<p>Aspects:</p> <p>6. Environment: reduced environmental footprint ⁽⁶¹⁾ of the business sector</p> <p>7. Production Efficiency: increased resource productivity ⁽⁶²⁾ and reduced operational and/or compliance costs of the business sector</p> <p>8. Policy and institutional: conducive policies and regulations implemented and enforced and RECP promoted by strong custodian at the national level</p> <p>9. Finance: opportunities for financing RECP investments established and are being utilized</p> <p>10. Technology: enhanced assimilative capacity for ESTs and sustainable products</p>	<ul style="list-style-type: none"> • Programme evaluation (mid term and final) • Aggregated results from thematic reviews (activities 2.1.1, 2.2.1 and 2.3.1) • Aggregated results from supportive projects, including national and/or regional projects (in particular under activity 1.2.2) and thematic projects (in particular under activities 2.1.2, 2.2.2, and 2.3.2) 	
Outcome (Overarching)			

⁶¹ Environmental footprint is used as a shorthand for the total of the impacts of a business or other organization on its surrounding environment, in particular through its discharges of waste and emissions; noise, odor, radiation and/or other nuisance factors; and impact on the quality of local ecosystems (through e.g. extraction of water and harvesting or extracting of other natural resources). The total of environmental impacts of a business can in principle be expressed with a proxy, aggregated environmental pressure indicator such as ecological footprint. Improvements in the environmental performance of the business over time are best expressed as units of value creation or productive output per unit of environmental impact, e.g. MVA/ton waste, or units of product/ton SO₂-emitted.

⁶² Resource productivity is concerned with the productive use of natural resources by the business or other organization as measured in the ratio of value creation or productive output per unit of resource consumption (including water, energy and materials), e.g. MVA/energy (\$/MJ) or MVA/water (\$/GL).

Narrative Summary	Indicators	Means of Verification	Assumptions
<p>RECP concepts, methods, practices and policies implemented by enterprises, governments, finance and business Services providers and other stakeholders in particular in the participating countries</p>	<p>5. RECP activities of enterprises 6. RECP activities of government 7. RECP initiatives of providers of business services and finance 8. RECP initiatives of other stakeholders</p>	<ul style="list-style-type: none"> • Programme evaluation (mid term and final) • Annual reports of enterprises, government agencies, business Services and finance providers and other stakeholders 	<ul style="list-style-type: none"> • RECP is beneficial for host countries and enterprises, governments and other stakeholders can appropriate tangible and measurable benefits from RECP implementation ('win-win' premise)
Outcomes (Contributing)			
<p><u>Outcome 1:</u> RECP Services Delivery Network: RECP services delivery capacity enhanced through NCPCs/NCPPs and other RECP services delivery mechanisms</p>	<p>1.2. Recognition of RECP Services Providers by private and public sectors and civil society (RECP service provider is a partner of choice for national stakeholders)</p>	<ul style="list-style-type: none"> • Programme evaluation (mid-term and final) • Annual reports of RECP Services Providers participating the network • Management system certification for RECP Services Providers (optional) 	<ul style="list-style-type: none"> • Impact of RECP Services Providers (including NCPCs/NCPPs) is constrained by perceptions of limited relevance compared to other national initiatives
<p><u>Outcome 2:</u> Thematic RECP Applications: RECP implemented by enterprises and environment, resource use and economic benefits accomplished by enterprises have been verified</p>	<p>2.4. Reduced environmental footprint of enterprises 2.5. Increased resource productivity of enterprises 2.6. Reduced operational and compliance costs of enterprises</p>	<ul style="list-style-type: none"> • Environment, financial and/or sustainability reports of enterprises • Biannual management reports of UNIDO-UNEP RECP Programme • Programme Evaluation (mid-term and final) 	<ul style="list-style-type: none"> • There is insufficient consideration of the potential and importance of RECP as cornerstone for business contributions to resource efficiency, waste and pollution prevention and corporate responsibility • Availability of compelling success stories with environmental, resource use and cost benefits of RECP implementation can accelerate the wider consideration and uptake of RECP concepts, methods, practices and policies
<p><u>Outcome 3:</u> RECP Incentives RECP mainstreamed in relevant policy, regulations and enterprise finance</p>	<p>3.3. Increased role for RECP in environmental, industry and other relevant policies at national levels 3.4. Increased availability of RECP targeted finance for enterprise sector</p>	<ul style="list-style-type: none"> • National communications of host governments for the Marrakech process • Annual reports of RECP Services Providers participating in the network • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Uptake of RECP by enterprises and other organisations is constrained by lack of government incentive and of availability of appropriate financing options

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><u>Outcome 4:</u></p> <p>Innovation Capacity</p> <p>National capacities strengthened for implementation of Environmentally Sound Technologies and sustainable product developments</p>	4.1. Increased availability of RECP targeted process innovation and product development services	<ul style="list-style-type: none"> • Reports of technical Services Providers and innovation agents • Biannual management reports on UNIDO-UNEP RECP Programme 	<ul style="list-style-type: none"> • Transfer, adaptation and replication of clean technologies and sustainable product designs is constrained by limited supply of technology management/engineering/innovation services in host countries of the UNIDO-UNEP RECP Programme

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 1: RECP Services delivery Network			
<p><u>Output 1.1:</u> Active network of RECP Services Providers established, network members recruited and a programme of networking, learning and information sharing activities in place that addresses the needs of different members</p>	<p>1.3 Membership satisfaction on the performance of the network of RECP Services Providers (its structure, management, operation and activities)</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO-UNEP RECP Programme • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • NCPCs/NCPPs and other RECP Services Providers perceive value in a UNIDO-UNEP moderated network RECP Services Providers and therefore commit to be active members
<p><u>Activities:</u></p> <p>1.1.5. Facilitate the development of a membership charter, detailing benefits and responsibilities, including membership criteria</p> <p>1.1.6. Establish an appropriate governance structure for the network</p> <p>1.1.7. Establish and operate a knowledge and information sharing and management platform (including e.g. resources, experts, case studies etc.)</p> <p>1.1.8. Organize global network events with an appropriate frequency (e.g. approximately 1.5 yrs)</p>	<p>1.1.5. Network membership charter</p> <p>1.1.6. Governance structure with ToR for Network Committee</p> <p>1.1.7. Existence and use of platform</p> <p>1.1.8. Networking events have taken place</p>	<p>1.1.5. Launch of network charter</p> <p>1.1.6. Minutes of Network Committee meetings</p> <p>1.1.7. Use statistics of the platform</p> <p>1.1.8. Proceedings of networking events</p>	<ul style="list-style-type: none"> • NCPCs/NCPPs and other RECP Services Providers will appreciate and value the benefits they receive from being a member of the RECP Services Providers' Network and fulfil their membership duties and responsibilities

<p>Output 1.2: RECP services delivery capacity established in priority countries, new to the programme based on strategic programme targets</p>	<p>1.4 Initiation of RECP services delivery in three additional countries annually</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme • Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> • There is interest among developing and transition economy countries to establish RECP services delivery capacity ⁽⁶³⁾ • The expressions of interest received match the strategic priorities of the programme ⁽⁶⁴⁾ • There is interest from donors to fund the establishment of RECP services delivery capacity in priority countries
<p>Activities</p> <p>1.2.3. Formulate and obtain approval for strategy for establishing new RECP services delivery capacity</p> <p>1.2.4. Establish new RECP services delivery capacity through country-level support projects for NCPP and/or NCPC ⁽⁶⁵⁾</p>	<p>1.2.3. Priority and eligibility criteria for new programme countries established</p> <p>1.2.4. New NCPCs/NCPPs established in accordance with respective project agreements</p>	<p>1.2.3. Biannual management reports of UNIDO-UNEP RECP programme</p> <p>1.2.4. Biannual management reports on UNIDO-UNEP RECP programme and independent evaluation of respective NCPCs</p>	<ul style="list-style-type: none"> • UNIDO and UNEP have comparative advantage for establishing RECP services delivery capacity • Programme management of UNIDO and UNEP has thematic leadership to judge prospects for establishing new RECP services delivery capacity in candidate countries
<p>Output 1.3: Existing NCPCs/NCPPs supported in regard to scaling up their activities and impacts and their further institutionalization and ongoing professionalisation</p>	<p>1.4. Satisfaction of management of existing NCPCs/NCPPs with level of support received</p>	<ul style="list-style-type: none"> • Biannual management reports of UNIDO-UNEP RECP Programme • Independent evaluation (mid-term and final) 	<ul style="list-style-type: none"> • Existing NCPCs/NCPPs are interested in ongoing support from the UNIDO-UNEP RECP programme management on matters of up-scaling, institutionalization and professionalization
<p>Activities</p> <p>1.3.5. Formulate, obtain endorsement and implement a strategy and detailed work programme for providing ongoing support to NCPCs no longer institutionally funded through the UNIDO-UNEP RECP Programme</p> <p>1.3.6. Organize and deliver advanced training for network members on topics identified and prioritized by the Network Committee</p> <p>1.3.7. Develop, trial, evaluate and disseminate tools and resources for NCPCs/NCPPs for their</p>	<p>1.3.5. Strategy and work programme in place</p> <p>1.3.6. Training events have taken place</p>	<p>1.3.5. Release of strategy and periodically updated work programme</p> <p>1.3.6. Proceedings of trainings</p>	<ul style="list-style-type: none"> • Programme management of UNIDO and UNEP has the thematic leadership to support national owners of the NCPCs/NCPPs to achieve a strategic position as national RECP custodian • Widespread uptake of RECP requires locally adapted and abridged RECP methods that can be easily replicated and concerted involvement of various stakeholders to build strategic commitment of private sector for RECP

⁶³ As of mid 2008, expressions of interest for establishing a NCPC have been received from 36 countries (Albania, Algeria, Argentina, Azerbedjan, Bahrain, Belarus, Congo, Dominican Republic, Ghana, DPR Korea, Honduras, Indonesia, Iran, Jordan, Kuwait, Lesotho, Libya, Lithuania, Madagascar, Mauritius, Mongolia, Nigeria, Pakistan, Panama, Paraguay, Philippines, Qatar, Rwanda, Saudi Arabia, Syria, Sudan, Turkey, United Arab Emirates, Uruguay, Venezuela and Zambia)

⁶⁴ For example in regards to: level and structure of industrialisation, past CP and related initiatives, perceived potential for CP and institutional strength of potential host institutions

⁶⁵ The establishment of new RECP services delivery capacity will be governed by a separate project document, within the strategic and programmatic framework set by this Project Document and the accompanying Programme Strategy.

<p>institutional development, professionalization and capacity building in <u>all</u> RECP service areas ⁽⁶⁶⁾</p> <p>1.3.8. Develop, trial, evaluate and disseminate flexible guidance for <i>up-scaling</i> ⁽⁶⁷⁾ RECP implementation through adaptation and replication of RECP methods and communication and stakeholder strategies</p>	<p>1.3.7. Tools and resources have been developed to support institutionalization and professionalization of NCPCs/NCPPs</p>	<p>1.3.7. Publication of tools/resources</p>	
	<p>1.3.8. Guidance on up-scaling available along with results of trials</p>	<p>1.3.8. Publication of up-scaling guidance and results</p>	

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 2: Thematic RECP Applications			
<p><u>Output 2.1:</u> Thematic projects on RECP for Resource Efficiency developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</p>	<p>2.4 Thematic projects on RECP for Resource Efficiency developed, implemented and evaluated</p>	<ul style="list-style-type: none"> Biannual management reports of UNIDO UNEP RECP Programme Independent evaluation of respective thematic project(s) 	<ul style="list-style-type: none"> There is interest among qualifying RECP Services Providers to undertake thematic activities on RECP for Resource Efficiency There is interest among donors to fund thematic activities on RECP and Resource Efficiency
<p><u>Activities</u></p> <p>2.2.3. Coordinate periodic reviews of present status and future trends on RECP and resource efficiency and identify thematic issues and opportunities</p> <p>2.2.4. Formulate and implement thematic project(s) on RECP for Resource Efficiency ⁽⁶⁸⁾</p>	<p>2.1.3. Thematic reviews completed and priorities established and periodically updated</p> <p>2.1.4. Thematic project(s) on RECP for Resource Efficiency formulated, implemented and evaluated as per respective project agreements</p>	<p>2.1.3. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.1.4. Biannual management reports and independent evaluation of respective thematic project(s), including assessment of impacts</p>	<ul style="list-style-type: none"> Programme management by UNIDO and UNEP succeeds in scoping thematic activities to mainstream the application of RECP for Resource Efficiency, using where available appropriate resources previously developed and agency-wide expertise
<p><u>Output 2.2:</u> Thematic project(s) on RECP for Waste and Pollution Prevention ⁽⁶⁹⁾ developed,</p>	<p>2.5 Thematic project(s) on RECP for Waste and Pollution Prevention developed, implemented</p>	<ul style="list-style-type: none"> Biannual management reports of UNIDO UNEP RECP 	<ul style="list-style-type: none"> There is interest among qualifying RECP Services Providers to undertake

⁶⁶ Execution of further capacity building initiatives will be governed by separate project document(s) , framed within the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

⁶⁷ The term '*up-scaling*' is used to refer to the mechanism of achieving a rapid increase in CP activity and implementation in a relatively short timeframe, for example, depending on size of business sector in the host country, an ten- to hundred-fold increase in CP activity in 2-3 years.

⁶⁸ The implementation of thematic project(s) on RECP for Resource Efficiency will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

Narrative Summary	Indicators	Means of Verification	Assumptions
<p>implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</p>	<p>and evaluated</p>	<p>Programme</p> <ul style="list-style-type: none"> Independent evaluation of respective thematic projects 	<p>thematic activities on RECP and Waste and Pollution Prevention</p> <ul style="list-style-type: none"> There is interest among donors to fund thematic activities on CP and Waste and Pollution Prevention
<p><i>Activities</i></p> <p>2.2.3. Coordinate periodic reviews of present status and future trends on RECP and Waste and Emission Prevention and identify thematic issues and opportunities</p> <p>2.2.4. Formulate and implement thematic project(s) on RECP for Waste and Emission Prevention ⁽⁷⁰⁾</p>	<p>2.2.3. Thematic reviews completed and priorities established and periodically updated</p> <p>2.2.4. Thematic project(s) on RECP for Waste and Pollution Prevention formulated, implemented and evaluated as per respective project agreements</p>	<p>2.2.3. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.2.4. Biannual management reports and independent evaluation of respective thematic project(s), including assessment of impacts</p>	<ul style="list-style-type: none"> Programme management by UNIDO and UNEP succeeds in scoping thematic activities to mainstream the application of RECP for Waste and Pollution Prevention, using where available appropriate resources previously developed and agency-wide expertise
<p><i>Output 2.3: Thematic projects on RECP for Corporate Responsibility developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</i></p>	<p>2.6 Thematic project(s) on RECP for Corporate Responsibility developed, implemented and evaluated</p>	<ul style="list-style-type: none"> Biannual management reports of UNIDO-UNEP RECP Programme Independent evaluation of respective thematic project(s) 	<ul style="list-style-type: none"> There is interest among qualifying RECP Services Providers to undertake thematic activities on RECP for Corporate Responsibility There is interest among donors to fund thematic activities on RECP for Corporate Responsibility
<p><i>Activities</i></p> <p>2.3.3. Coordinate periodic reviews of present status and future trends on RECP and Corporate Responsibility and identify thematic issues and priorities</p> <p>2.3.4. Formulate and implement project(s) on RECP for Corporate Responsibility ⁽⁷¹⁾</p>	<p>2.3.3. Thematic reviews completed and priorities established and periodically updated</p> <p>2.3.4. Thematic project(s) on RECP for Corporate Responsibility formulated, implemented and evaluated as per respective project agreements</p>	<p>2.3.3. Biannual management reports of UNIDO-UNEP RECP Programme</p> <p>2.3.4. Biannual management reports and independent evaluation of respective</p>	<ul style="list-style-type: none"> Programme management by UNIDO and UNEP succeed in scoping thematic activities to mainstream the application of RECP for Corporate Responsibility using where available appropriate resources previously developed and agency-wide expertise

⁶⁹ Environmentally sound management of chemicals is within the context of this UNIDO-UNEP RECP Programme considered to be an integral part of prevention of waste and emissions

⁷⁰ The implementation of thematic projects(s) on RECP for Waste and Emission Prevention will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

⁷¹ The implementation of thematic projects(s) on RECP for corporate responsibility will be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy. The current pilot projects on Closing the Loops and Sustainable Industrial Resource Management could form a starting point for thematic sub-programme(s) on CP and Materials Efficiency.

Narrative Summary	Indicators	Means of Verification	Assumptions
		thematic project(s), including assessment of impacts	
Outputs and Activities 3: RECP Incentives			
<p><i>Output 3.1:</i> Flexible framework of guidelines for mainstreaming RECP in relevant government policies (including those for Sustainable Consumption and Production and sustainable industrial development) developed, trialed and evaluated in selected countries, instruments and results widely disseminated through network of RECP Services Providers, and capacity built of government institutions to implement and enforce relevant policies and legislation</p>	<p>3.3 Proposals for RECP-conducive policies identified, implemented and enforced in pilot countries</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO UNEP RECP Programme • National communications of pilot countries to the Marrakech Process • Programme evaluation (interim and final) 	<ul style="list-style-type: none"> • Governments of host countries of UNIDO-UNEP RECP Programme are interested and committed to develop, implement and enforce RECP-conducive policy and regulations • There is interest among qualifying RECP Services Providers to implement pilot activities on mainstreaming RECP in relevant national policies • There is potential interest among donors to fund complimentary activities on national implementation of RECP action plans
<p><i>Activities</i></p> <p>3.1.4. Develop flexible framework of guidelines for mainstreaming RECP in relevant government policies, based on outcome of global assessment of best practices and policy instruments</p> <p>3.1.5. Trial flexible framework for development of national action plans in at least some 5 countries ⁽⁷²⁾, including national capacity building for implementation and enforcement, and evaluate results</p> <p>3.1.6. Formulate and implement complimentary activities on implementation of national RECP action plans in the broader context of Sustainable Consumption and</p>	<p>3.1.4. Flexible framework developed and results of global assessment of best practices available</p> <p>3.1.5. Completion of pilots and results and experiences documented in case study, and promoted throughout the Programme</p> <p>3.1.6. Complementary project(s) on national implementation formulated, implemented and evaluated as per the respective project agreement(s)</p>	<p>3.1.4. Publication of flexible framework and background report</p> <p>3.1.5. Biannual management reports of the UNIDO-UNEP RECP Programme</p> <p>3.1.6. Biannual management reports and independent evaluation of respective complementary project(s)</p>	<ul style="list-style-type: none"> • Effective liaison with Marrakech Process can be achieved and synergies with development of national action plans for Sustainable Consumption and Production (SCP) and industrial policies are being achieved

⁷² Further training and capacity building at the global level will take place through training activities under 1.3.2.

Narrative Summary	Indicators	Means of Verification	Assumptions
Production and/or Sustainable Industrial Development in selected countries ⁽⁷³⁾			
<p><i>Output 3.2: Flexible framework of guidelines and instruments for mainstreaming RECP in enterprise finance developed, trialled and evaluated in selected countries, methods and results widely disseminated through the network of RECP Services Providers, and capacity built of financial sector and business Services providers to avail and utilize appropriate finance options for RECP-investments</i></p>	<p>3.4 Proposals for RECP-conducive finance and credit identified and implemented by selected financial institutions in pilot countries</p>	<ul style="list-style-type: none"> • Biannual management reports of the UNIDO-UNEP RECP Programme • Reports from collaborating financial institutions • Programme evaluation (interim and final) 	<ul style="list-style-type: none"> • Financial institutions operating in host countries of the UNIDO-UNEP RECP Programme are interested and committed to finance profitable RECP investments • There is interest among qualifying RECP Services Providers to undertake pilot initiatives in collaboration with financial institutions • There is potential interest among donors and financial institutions to fund complimentary projects on specific financial instruments
<p><i>Activities</i></p> <p>3.2.4. Develop flexible framework of guidelines on possible financial instruments for RECP investment based on review of best practices and gaps identified</p> <p>3.2.5. Pilot flexible framework for development of specific financial instruments in some 5 countries, including national capacity building in the finance and business Services sectors ⁽⁷⁴⁾</p> <p>3.2.6. Formulate and implement complimentary project(s) to create specific financial instruments in selected countries ⁽⁷⁵⁾</p>	<p>3.2.4. Completion of the flexible framework and the background study with results from global best practices' assessment</p> <p>3.2.5. Completion of pilots and results and experiences documented</p> <p>3.2.6. Complementary project(s) for creation of specific financial instruments formulated, implemented and evaluated as per the respective project agreement(s)</p>	<p>3.2.4. Publication of framework and background report</p> <p>3.2.5. Publication of reports on the pilot projects</p> <p>3.2.6. Biannual management reports and independent evaluation of respective complementary project(s)</p>	<ul style="list-style-type: none"> • RECP programme management by UNIDO and UNEP succeeds in building upon results and resources developed for CP finance and investment promotion

⁷³ Depending on the scope of the supportive activities for trial of the guidelines, these could be spun off into separate project(s) for selected country(ies). Such complimentary projects would then be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy.

⁷⁴ Further training and capacity building at the global level will take place through networking and up-scaling activities under 1.3.2

⁷⁵ Depending on the scope of the supportive activities for trial of the guidelines, these could be spun off into separate project(s) for selected country(ies). Such complimentary projects would then be governed by separate project document(s), framed with the strategic and programmatic direction set by this Project Document and the accompanying Programme Strategy. It is foreshadowed that the current project on Chemical Leasing could be integrated as a complimentary project on the application of performance base contracting (a financial instrument) for RECP and chemicals management.

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 4: Innovation Capacity			
<u>Output 4.1:</u> Opportunities identified and evaluated in selected countries for enhancing national innovation capacities for the assessment, selection, adaptation and replication of Environmentally Sound Technologies (ESTs)	4.3 Innovation capacity strengthened to enable transfer and replication of ESTs	<ul style="list-style-type: none"> Biannual management reports of the UNIDO-UNEP RECP Programme Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> Technical institutes, innovation agents and technology Services Providers exist in host countries of UNIDO-UNEP RECP Programme that are interested to develop further capacities and services in transfer, adaptation and replication of ESTs
<u>Activities</u>			<ul style="list-style-type: none"> Programme management by UNIDO-UNEP succeed in identifying and implementing appropriate activities to leverage the availability of technology innovation and management services, using where available appropriate resources previously developed and agency-wide expertise
4.1.4. Review at country level technology management and assessment capacities and national technology/process innovation systems in selected countries	4.1.4. Analytical report of base case reviews	4.1.4. Publication of baseline report(s) and biannual management reports of the UNIDO-UNEP RECP Programme	
4.1.5. Formulate and implement thematic projects to develop and/or strengthen innovation and technology assessment and adaptation capacities at national level in selected country(ies) ⁽⁷⁶⁾	4.1.5. Supportive project(s) on strengthening of process innovation capacities formulated, implemented and evaluated as per the respective project agreement(s)	4.1.5. Biannual management reports and independent evaluation of respective thematic projects	
4.1.6. Publish results and experiences widely in toolkit and/or other resource materials ⁽⁷⁷⁾	4.1.6. Toolkit developed and published	4.1.6. Biannual management reports of the UNIDO-UNEP RECP Programme	
<u>Output 4.2:</u> Opportunities identified, trialled and evaluated in selected countries for enhancing national innovation capacities for development, implementation and marketing of sustainable products and services	4.4 Innovation capacity strengthened to support sustainable product developments	<ul style="list-style-type: none"> Biannual management reports of the UNIDO-UNEP RECP Programme Programme evaluation (mid-term and final) 	<ul style="list-style-type: none"> Technical institutes, innovation agents and technology Services Providers exist in host countries of UNIDO-UNEP RECP Programme that are interested to develop further capacities and services in sustainable product development
<u>Activities</u>			<ul style="list-style-type: none"> Programme management by UNIDO-UNEP succeed in identifying and implementing appropriate activities to leverage the availability of product innovation and development services, using where
4.2.4 Review at country level technology management and assessment capacities and	4.2.4 Analytical report of base case reviews	<ul style="list-style-type: none"> Publication of baseline report(s) and biannual 	

⁷⁶ To be defined on basis of findings from 4.1.1 and implemented with a separate project document to be developed within the strategic and programmatic direction of this Project Document and the accompanying Programme Strategy, either separately or in combination with activity 4.2.2

⁷⁷ Depending on findings of 4.1.1 and 4.1.2 and possibly integrated with 1.3

Narrative Summary	Indicators	Means of Verification	Assumptions
<p>national technology/process innovation systems in selected countries</p> <p>4.2.5 Formulate and implement thematic projects to develop and/or strengthen innovation and technology assessment and adaptation capacities at national level in selected country(ies) ⁽⁷⁸⁾</p> <p>4.2.6 Publish results and experiences widely in toolkit and/or other resource materials ⁽⁷⁹⁾</p>	<p>4.2.5 Supportive projects on strengthening of product development capacities formulated, implemented and evaluated, as per the respective project agreement(s)</p> <p>4.2.6 Toolkit developed and published</p>	<p>management reports of the UNIDO-UNEP RECP Programme</p> <ul style="list-style-type: none"> • Biannual management reports and independent evaluation of respective thematic projects • Biannual management reports of the UNIDO-UNEP RECP Programme 	<p>available appropriate resources previously developed and agency-wide expertise</p>

⁷⁸ To be defined on basis of findings from 4.2.1 and implemented with a separate project document to be developed within the strategic and programmatic direction of this Project Document and the accompanying Programme Strategy, either separately or in combination with activity 4.1.2.

⁷⁹ Depending on findings of 4.2.1 and 4.2.2 and possibly integrated with 1.3.

ANNEX 2: DETAILED QUESTIONS TO ASSESS EVALUATION CRITERIA

The evaluation team will assess the programme performance guided by the questions below.

#	Evaluation criteria
A	Progress to impact
	<ul style="list-style-type: none">✓ Mainstreaming: To what extent information, lessons or specific results of the programme are incorporated into broader stakeholder mandates and initiatives such as laws, policies, regulations and programme?✓ Replication: To what extent the programme's specific results (e.g. methodology, technology, lessons and etc) are reproduced or adopted✓ Scaling-up: To what extent the programme's initiatives and results are implemented at larger geographical scale?✓ What difference has the programme made to the beneficiaries?✓ What is the change attributable to the programme? To what extent?✓ What are the social, economic, environmental and other effects, either short-, medium- or long-term, on a micro- or macro-level?✓ What effects are intended or unintended, positive or negative? <p>The three UNIDO impact dimensions are:</p> <ul style="list-style-type: none">✓ Safeguarding environment: To what extent the programme contributes to changes in the status of environment.✓ Economic performance: To what extent the programme contributes to changes in the economic performance (finances, income, costs saving, expenditure and etc) of individuals, groups and entities?✓ Social inclusiveness: To what extent the programme contributes to changes in capacity and capability of individuals, groups and entities in society, such as employment, education, and training?
B	Programme design
1	<ul style="list-style-type: none">• Overall design✓ The programme design was adequate to address the problems at hand?✓ Is the programme consistent with the Country's priorities, in the work plan of the lead national counterpart? Does it meet the needs of the target group? Is it consistent with UNIDO's Inclusive and Sustainable Industrial Development? Does it adequately reflect lessons learnt from past projects? Is it in line with the donor's priorities and policies?✓ Is the applied programme approach sound and appropriate? Is the design technically feasible and based on best practices? Does UNIDO have in-house technical expertise and experience for this type of intervention?✓ To what extent the programme design (in terms of funding, institutional arrangement, implementation arrangements...) as foreseen in the programme document still valid and relevant?✓ Does the programme document include a M&E plan? Does the M&E plan specify what, who and how frequent monitoring, review, evaluations and data collection will take place? Does it allocate budget for each exercise? Is the M&E budget adequately allocated (see a M&E sample) and consistent with the logframe (especially indicators and sources of verification)?✓ Risk management: Are critical risks related to financial, social-political, institutional, environmental and implementation aspects identified with specific risk ratings? Are their mitigation measures identified? Where possible, are the mitigation measures included in programme activities/outputs and monitored under the M&E plan?
2	<ul style="list-style-type: none">• Logframe✓ Expected results: Is the expected result-chain (impact, outcomes and outputs) clear and logical? Does impact describe a desired long-term benefit to a society or community (not as a mean or

process), do outcomes describe change in target group's behaviour/performance or system/institutional performance, do outputs describe deliverables that programme will produce to achieve outcomes? Are the expected results realistic, measurable and not a reformulation or summary of lower level results? Do outputs plus assumptions lead to outcomes, do outcomes plus assumptions lead to impact? Can all outputs be delivered by the programme, are outcomes outside UNIDO's control but within its influence?

- ✓ Indicators: Do indicators describe and specify expected results (impact, outcomes and outputs) in terms of quantity, quality and time? Do indicators change at each level of results and independent from indicators at higher and lower levels? Do indicators not restate expected results and not cause them? Are indicators necessary and sufficient and do they provide enough triangulation (cross-checking)? Are they indicators sex-disaggregated, if applicable?
- ✓ Sources of verification: Are the sources of verification/data able to verify status of indicators, are they cost-effective and reliable? Are the sources of verification/data able to verify status of output and outcome indicators before programme completion?

C Programme performance

- 1
 - Relevance
 - ✓ How does the programme fulfil the urgent target group needs?
 - ✓ To what extent is the programme aligned with the development priorities of the country (national poverty reduction strategy, sector development strategy)?
 - ✓ How does programme reflect donor policies and priorities?
 - ✓ Is the programme a technically adequate solution to the development problem? Does it eliminate the cause of the problem?
 - ✓ To what extent does the programme correspond to UNIDO's comparative advantages?
 - ✓ Are the original programme objectives (expected results) still valid and pertinent to the target groups? If not, have they been revised? Are the revised objectives still valid in today's context?
- 2
 - Effectiveness
 - ✓ What are the main results (mainly outputs and outcomes) of the programme? What have been the quantifiable results of the programme?
 - ✓ To what extent did the programme achieve their objectives (outputs and outcomes), against the original/revised target(s)?
 - ✓ What are the reasons for the achievement/non-achievement of the programme objectives?
 - ✓ What is the quality of the results? How do the stakeholders perceive them? What is the feedback of the beneficiaries and the stakeholders on the programme effectiveness?
 - ✓ To what extent is the identified progress result of the programme rather than external factors?
 - ✓ What can be done to make the programme more effective?
 - ✓ Were the right target groups reached?
- 3
 - Efficiency
 - ✓ How economically are the programme resources/inputs (concerning funding, expertise, time...) being used to produce results?
 - ✓ To what extent were expected results achieved within the original budget? If no, please explain why.
 - ✓ Are the results being achieved at an acceptable cost? Would alternative approaches accomplish the same results at less cost?
 - ✓ What measures have been taken during planning and implementation to ensure that resources are efficiently used? Were the programme expenditures in line with budgets?
 - ✓ Could more have been achieved with the same input?
 - ✓ Could the same have been achieved with less input?
 - ✓ How timely was the programme in producing outputs and outcomes? Comment on the delay or acceleration of the programme's implementation period.
 - ✓ To what extent were the programme's activities in line with the schedule of activities as defined by the Programme Team and annual Work Plans?
 - ✓ Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet the requirements?
- 4
 - Sustainability of benefits
 - ✓ Will the programme results and benefits be sustained after the end of donor funding?
 - ✓ Does the programme have an exit strategy?

Financial risks:

- ✓ What is the likelihood of financial and economic resources not being available once the programme ends?

Socio-political risks:

- ✓ Are there any social or political risks that may jeopardize the sustainability of programme outcomes?
- ✓ What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the programme outcomes/benefits to be sustained?
- ✓ Do the various key stakeholders see that it is in their interest that programme benefits continue to flow?
- ✓ Is there sufficient public/stakeholder awareness in support of the programme's long-term objectives?

Institutional framework and governance risks:

- ✓ Do the legal frameworks, policies, and governance structures and processes within which the programme operates pose risks that may jeopardize the sustainability of programme benefits?
- ✓ Are requisite systems for accountability and transparency and required technical know-how in place?

Environmental risks:

- ✓ Are there any environmental risks that may jeopardize the sustainability of programme outcomes?
- ✓ Are there any programme outputs or higher level results that are likely to have adverse environmental impacts, which, in turn, might affect the sustainability of programme benefits?

D Cross-cutting performance criteria

- 1 • Gender mainstreaming
 - ✓ Did the programme design adequately consider the gender dimensions in its interventions? Was the gender marker assigned correctly at entry?
 - ✓ Was a gender analysis included in a baseline study or needs assessment (if any)? Were there gender-related programme indicators?
 - ✓ Are women/gender-focused groups, associations or gender units in partner organizations consulted/ included in the programme?
 - ✓ How gender-balanced was the composition of the programme management team, the Steering Committee, experts and consultants and the beneficiaries?
 - ✓ Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision-making authority)?
 - ✓ To what extent were socioeconomic benefits delivered by the programme at the national and local levels, including consideration of gender dimensions?
- 2 • M&E:
 - ✓ **M&E design**
 - Was the M&E plan at the point of programme approval practical and sufficient?
 - Did it include baseline data and specify clear targets and appropriate indicators to track environmental, gender, and socio economic results?
 - Did it include a proper M&E methodological approach; specify practical organization and logistics of the M&E activities including schedule and responsibilities for data collection;
 - Did it include budget adequate funds for M&E activities?
 - ✓ **M&E implementation**
 - How was the information from M&E system used during the programme implementation? Was an M&E system in place and did it facilitate timely tracking of progress toward programme results by collecting information on selected indicators continually throughout the programme implementation period? Did programme team and manager make decisions and corrective actions based on analysis from M&E system and based on results achieved?
 - Are annual/progress programme reports complete and accurate?
 - Was the information provided by the M&E system used to improve performance and adapt to changing needs? Was information on programme performance and results achievement being presented to the Programme Steering Committee to make decisions and corrective actions? Do the

- Programme team and managers and PSC regularly ask for performance and results information?
 - Are monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impact in the logframe? Do performance monitoring and reviews take place regularly?
 - Were resources for M&E sufficient?
 - How has the logframe been used for Monitoring and Evaluation purposes (developing M&E plan, setting M&E system, determining baseline and targets, annual implementation review by the Programme Steering Committee...) to monitor progress towards expected outputs and outcomes?
 - How well have risks outlined in the programme document and in the logframe been monitored and managed? How often have risks been reviewed and updated? Has a risk management mechanism been put in place?
- 3
- Programme management
 - ✓ Review overall effectiveness of programme management as outlined in the Programme Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
 - ✓ Review whether the national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions)?
 - ✓ The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g. problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)?

E Performance of partners

- 1
- UNIDO
 - ✓ **Design**
 - Mobilization of adequate technical expertise for programme design
 - Inclusiveness of programme design (with national counterparts)
 - Previous evaluative evidence shaping programme design
 - Planning for M&E and ensuring sufficient M&E budget
 - ✓ **Implementation**
 - Timely recruitment of programme staff
 - Programme modifications following changes in context or after the Mid-Term Review
 - Follow-up to address implementation bottlenecks
 - Role of UNIDO country presence (if applicable) supporting the programme
 - Engagement in policy dialogue to ensure up-scaling of innovations
 - Coordination function
 - Exit strategy, planned together with the government
-
- 2
- National counterparts
 - ✓ **Design**
 - Responsiveness to UNIDO's invitation for engagement in designing the programme
 - ✓ **Implementation**
 - Ownership of the programme
 - Support to the programme, based on actions and policies
 - Counterpart funding
 - Internal government coordination
 - Exit strategy, planned together with UNIDO, or arrangements for continued funding of certain activities
 - Facilitation of the participation of Non-Governmental Organizations(NGOs), civil society and the private sector where appropriate
 - Suitable procurement procedures for timely programme implementation
 - Engagement with UNIDO in policy dialogue to promote the up-scaling or replication of innovations
-
- 3
- Donor
-

- ✓ Timely disbursement of programme funds
 - ✓ Feedback to progress reports, including Mid-Term Evaluation
 - ✓ Support by the donor's country presence (if applicable) supporting the programme for example through engagement in policy dialogue
-

F Overall programme achievement

- ✓ Overarching assessment of the programme, drawing upon the analysis made under Programme performance and Progress to Impact criteria above but not an average of ratings.

ANNEX 3: JOB DESCRIPTIONS

Post title: Senior International Evaluator (Team Leader)
Duration: 56 working days
Date required: 22 May-30 Sep 2017
Duty station: Home-base with two briefings in Vienna and field missions
Counterpart: RECPnet and its membership

Under the direct supervision of the UNIDO Headquarters Evaluation Manager, in cooperation with the senior RECP expert and the junior international expert, and with the support of the Programme Managers, the Senior International Evaluation Expert is responsible to carry out the following tasks:

Tasks	Expected Duration	Expected results
Undertake desk review of management, activity, output and related documents of the Programme and literature review related to the RECP	5 working days (home base)	Key questions and notes to prepare the inception report and field visits
Prepare an inception report which streamlines the specific questions to address the key issues in the TOR, specific methods that will be used and data to collect in the field visits. A draft Inception Report would be used for discussion with the SLP.	5 working days (home base)	The inception report. Submitted to evaluation manager on or before 6 June 2017
Briefing mission in Helsinki and Vienna: consult the regional executives of RECPnet, UNIDO relevant staff (programme/project managers, Department and divisional managers of RECP), and other relevant stakeholders. Conduct an inception workshop with the members of the Strategic Learning Partnership (SLP) group. Interview SECO Programme Manager (teleconference) Prepare and validate the agenda for field work missions	9 working days (3 day Helsinki, 5 days in Vienna, 1 day home based)	Detailed evaluation methodology confirmed, draft theory of change, and tentative agenda for field work.
Undertake fact finding field missions to consult programme partners and beneficiaries (including SECO field offices), to verify and complete preliminary evaluation findings from desk review and assess the institutional capacities of the country's RECP service provider	18 working days	Completed additional fact finding and data collection on or before 13 August 2017 (India, Colombia and Peru)
Prepare and submit draft report of evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the programme	12 working days	Draft evaluation report submitted to evaluation manager for review on or before 1 September 2017. 2 pages summary of take-away message from the evaluation.

Debriefing mission – presentation of draft evaluation report, factual verification of evaluation findings to the work stream programme managers, SLP members and SECO	4 working days (Vienna, Bern)	Factual verification of evaluation report concluded, additional data obtained, on or before 12-14 September 2017
Finalize evaluation report, on basis of comments and suggestions received through the evaluation manager	3 working days (home base)	Final evaluation report submitted to evaluation manager on or before 25 September 2017

Requirements

Relevant university degree; over 10 years programme evaluation experience; excellent oral and written communication skills in English; demonstrated familiarity with environmental management programmes. Knowledge of Spanish language is an asset.

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the project/programme (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the programme before or shortly after the completion of her/his contract with the Office for Independent Evaluation.

Job Description

Post title:	Senior Resource Efficient and Cleaner Production (RECP) Expert
Duration:	30 working days
Date required:	22 May-30 Sep 2017
Duty station:	Home-base with two briefings in Vienna and field missions
Counterpart:	RECPnet and its membership

Under the direct supervision of the UNIDO Headquarters Evaluation Manager, in consultation with and under the guidance of the Team Leader and with the support of the Programme Managers, the Senior RECP Expert is responsible to carry out the following tasks:

Tasks	Expected Duration	Expected results
Undertake desk review of management, activity, output and related documents of the Programme and contribute to finalization of detailed evaluation methodology and an initial set of evaluation findings and questions for clarification and additional data collection	4 working days (home base)	– Provided thematic inputs to inception report with evaluation methodology, preliminary findings and outstanding issues, submitted to the Team Leader on or before 1 June 2017
Briefing mission – consultation of programme managers and regional executives of RECPnet, confirmation of detailed evaluation methodology and scope for country fact finding, presenting the inception report to the Strategic Learning Partnership (SLP) group	6 working days (Helsinki, Vienna)	– Detailed evaluation methodology confirmed, initial evaluation findings at network level, on or before 9 June 2017
Undertake fact finding field missions to consult programme partners and beneficiaries, to verify and complete preliminary evaluation findings from desk review and assess the institutional capacities of the country’s RECP service provider, focusing on assess technical and operational impact of RECP programme, on the impact dimensions of innovation, scale and mainstream,	12 working days (country visit)	– Completed technical and operational impact review, on or before 13 August 2017
Contribute to the drafting of report of evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the programme	5 working days (home base)	– Draft evaluation report submitted to the Team Leader for review on or before 1 September 2017
Debriefing mission – presentation of draft evaluation report, factual verification of evaluation findings to the work stream programme managers and SLP members	2 working days (Vienna)	– Factual verification of evaluation report concluded, additional data obtained, on or before 12 Sep 2017

Finalize evaluation report, on basis of comments and suggestions received through evaluation manager	1 working days (home base)	– Final evaluation report submitted to evaluation manager on or before 25 Sep 2017
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Requirements

Relevant university degree; over 7 years' experience in planning, implementation, monitoring and/or evaluation of RECP programmes in developing countries; excellent oral and written communication skills in English; demonstrated familiarity with procedures and practices of international technical cooperation.

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the project/programme (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the programme before or shortly after the completion of her/his contract with the Office for Independent Evaluation.

Job Description

Post title: Research Analyst
Duration: 30 working days,
Date required: 22 May-30 Sep 2017
Duty station: Home based

Under the direct supervision of the UNIDO Headquarters Evaluation Manager, under the guidance of the evaluation Team Leader and with the support of the Programme Manager, Research Analyst is responsible to carry out the following tasks for the global RECP programme:

Tasks	Expected Duration	Expected results
Assist the evaluation team with desk and literature review and related documents of the RECP Programme Prepare working paper or technical notes as required by the Team Leader Undertake other research tasks required by the evaluation team (e.g. develop and coordinate survey among memberships of RECPnet, as required)	20 working days	– Working paper and/or technical notes
Coordinate the country visits and meeting agenda for the Evaluation Team, with the support from the project teams in each country	5 working days	– Meeting agenda
Provide inputs to the draft evaluation report, including evaluation findings and recommendations and lessons learned	5 working days	– Input to evaluation report

Requirements

University degree in relevant business, public policy or environmental management, excellent research skill with at least 5 years in research; excellent oral and written communication skills in English.

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the project/programme (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the programme before or shortly after the completion of her/his contract with the Office for Independent Evaluation.

ANNEX 4: CHECKLIST ON EVALUATION REPORT QUALITY

Programme Title:

UNIDO Project No.:

Evaluation team:

Quality review done by:

Date:

Report quality criteria	UNIDO IEV assessment notes	Rating
a. Was the report well-structured and properly written? (Clear language, correct grammar, clear and logical structure)		
b. Was the evaluation objective clearly stated and the methodology appropriately defined?		
c. Did the report present an assessment of relevant outcomes and achievement of programme objectives?		
d. Was the report consistent with the ToR and was the evidence complete and convincing?		
e. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible? (Including assessment of assumptions, risks and impact drivers)		
f. Did the evidence presented support the lessons and recommendations? Are these directly based on findings?		
g. Did the report include the actual programme costs (total, per activity, per source)?		
h. Did the report include an assessment of the quality of both the M&E plan at entry and the system used during the implementation? Was the M&E sufficiently budgeted for during preparation and properly funded during implementation?		
i. Quality of the lessons: were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
j. Quality of the recommendations: did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can these be immediately implemented with current resources?		
k. Are the main cross-cutting issues, such as gender, human rights and environment, appropriately covered?		
l. Was the report delivered in a timely manner? (Observance of deadlines)		

Rating system for quality of evaluation reports

A rating scale of 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

ANNEX 5: GUIDANCE ON INTEGRATING GENDER IN EVALUATIONS OF UNIDO PROGRAMMES AND PROJECTS

A. Introduction

Gender equality is internationally recognized as a goal of development and is fundamental to sustainable growth and poverty reduction. The UNIDO Policy on gender equality and the empowerment of women and its addendum, issued respectively in April 2009 and May 2010 (UNIDO/DGB(M).110 and UNIDO/DGB(M).110/Add.1), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions.

According to the UNIDO Policy on gender equality and the empowerment of women:

Gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not suggest that women and men become 'the same' but that women's and men's rights, responsibilities and opportunities do not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. It is therefore not a 'women's issues'. On the contrary, it concerns and should fully engage both men and women and is a precondition for, and an indicator of sustainable people-centered development.

Empowerment of women signifies women gaining power and control over their own lives. It involves awareness-raising, building of self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discriminations and inequality.

Gender parity signifies equal numbers of men and women at all levels of an institution or organization, particularly at senior and decision-making levels.

The UNIDO programmes/programmes can be divided into two categories: 1) those where promotion of gender equality is one of the key aspects of the programme/project; and 2) those where there is limited or no attempted integration of gender. Evaluation managers/evaluators should select relevant questions depending on the type of interventions.

B. Gender responsive evaluation questions

The questions below will help evaluation managers/evaluators to mainstream gender issues in their evaluations.

B.1. Design

- Is the programme/project in line with the UNIDO and national policies on gender equality and the empowerment of women?
- Were gender issues identified at the design stage?
- Did the programme/project design adequately consider the gender dimensions in its interventions? If so, how?
- Were adequate resources (e.g., funds, staff time, methodology, experts) allocated to address gender concerns?
- To what extent were the needs and priorities of women, girls, boys and men reflected in the design?
- Was a gender analysis included in a baseline study or needs assessment (if any)?
- If the programme/project is people-centred, were target beneficiaries clearly identified and disaggregated by sex, age, race, ethnicity and socio-economic group?
- If the programme/project promotes gender equality and/or women's empowerment, was gender equality reflected in its objective/s? To what extent are output/outcome indicators gender disaggregated?

B.2. Implementation management

- Did programme monitoring and self-evaluation collect and analyse gender disaggregated data?
- Were decisions and recommendations based on the analyses? If so, how?
- Were gender concerns reflected in the criteria to select beneficiaries? If so, how?
- How gender-balanced was the composition of the programme management team, the Steering Committee, experts and consultants and the beneficiaries?
- If the programme/project promotes gender equality and/or women's empowerment, did the programme/project monitor, assess and report on its gender related objective/s?

B.3. Results

- Have women and men benefited equally from the programme's interventions? Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision making authority)?
- In the case of a programme/project with gender related objective/s, to what extent has the programme/project achieved the objective/s? To what extent has the programme/project reduced gender disparities and enhanced women's empowerment?