

Independent Mid-Term Evaluation

Joint UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries

UNIDO project No. UE/GLO/11/035 - SAP 100050



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO OFFICE FOR INDEPENDENT EVALUATION

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This document has not been formally edited.

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We hope that the findings, conclusions, and recommendations will contribute to enhancing the impact and outcomes of the RECP Programme during the remainder of its implementation period, and provide encouragement for the mobilisation of future funding to support the spread of Resource Efficient and Cleaner Production.

Abbreviations and acronyms

BAT	Best Available Technology
BM	Business Model
CTCN	Climate Technology Centre and Network
CP	Cleaner Production
DG	Director General
EaP GREEN	Greening Economies in the European Union's Eastern Neighbourhood
EB	Executive Board
EIP	Eco-industrial park
ESCO	Energy Service Company
ET	Evaluation Team
EU	European Union
EVA	UNIDO Office of Independent Evaluation
GEF	Global Environment Facility
GHG	Greenhouse Gas
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
KMS	Knowledge Management System
NCPC	National Cleaner Production Centre
NCPP	National Cleaner Production Programme
NCRD	National Development and Reform Commission (China)
RECP	Resource Efficient and Cleaner Production
ROM	Result-oriented Monitoring
SDG(s)	Sustainable Development Goal(s)
SECO	Swiss State Secretariat for Economic Affairs
SMART	Specific, Measureable, Achievable, Relevant and Timely
SME(s)	Small- and medium-sized enterprise(s)
TEST	Transfer of Environmentally Sound Technologies
ToR	Terms of Reference
UNEP	United Nations Environment Programme
UNEG	United Nations Evaluation Group
UNIDO	United Nations Industrial Development Organization
USP	Unique Selling Proposition
WS	Workstream

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 objectives of an intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (through activities) are converted into outputs.
Impact	Positive and negative, UNIDO 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.
Intervention	An external action to assist a national effort to achieve specific development goals.
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances.
Log frame (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on MBO (management by objectives) also called RBM (results based management) principles.
Mainstreaming	Embedding drivers and incentives for RECP implementation (stronger incentives for RECP consideration and its continued implementation, or “incentivizing enterprises for RECP”)
Outcomes	The achieved or likely effects of an intervention’s outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention.
Relevance	The extent to which the objectives of an intervention are consistent with the requirements of the end-users, government 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.
Upscaling	A significant reduction of the effort required per company to implement RECP (greater efficiency and effectiveness in RECP assessment and implementation, or “making RECP easier for enterprises”)

Executive summary

Introduction

During July-October 2015, an independent mid-term evaluation of the joint UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries (2012-2016), hereafter referred to as the “Programme”, was undertaken as a standard feature of the governance process. The Evaluation Team consisted of two international consultants together with three national consultants who provided support on the country-level fact-finding that was an integral part of this effort.

Evaluation Objectives, Methodology, and Process

This mid-term evaluation serves the dual-purpose of: 1) accounting for grant funding and other resources utilised by the Programme; and 2) documenting and systematizing experiences gained thus far. This effort serves multiple users: the Programme’s management team, the main funder (i.e. SECO within the Government of Switzerland), partner organisations (e.g. RECPnet members), and UNIDO’s Office of Independent Evaluation.

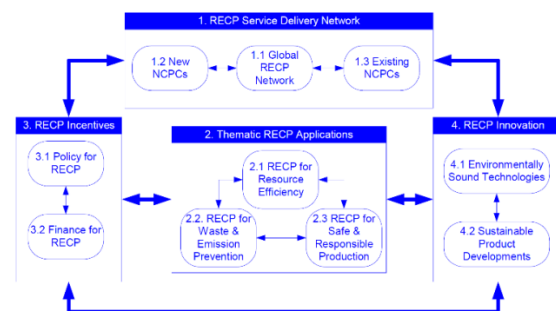
The Evaluation Team focussed on the findings from activities spanning 8 workstreams which are in the course of being implemented through funding provided by SECO, which targets 13 short-listed priority countries in service of the broader context (networking, overall RECPnet programme). Fact-finding was carried out in three priority countries (China, Egypt, Perú), as illustrations for the national programming and implementation of the global programme framework.

The chosen evaluation approach was primarily qualitative, consisting of reviewing key documents and interviews with UNIDO, UNEP and RECPnet representatives, actors in the scope of the country-level fact-finding, external consultants, and SECO-Swiss Embassy representatives, as well as an online survey, which was design and administered to all RECPnet member organisations, of which 27 responded (38%).

RECP Programme Background

In its original formulation, the RECP Programme was a sound but extremely ambitious multilateral programme consisting of 10 outputs structured within 4 overarching outcomes. The Programme was assembled like a mosaic through which additional donors and projects could fit within a bigger framework.

10 outputs within 4 overarching outcomes



The Government of Switzerland (SECO) confirmed CHF 14.6 million (exclusive Programme Support costs) to fund implementation of programmatic activities for the 2012-2016 period, allocated to the following 5 outputs:

- 1.1: Global RECP network: total net allocation of CHF 1.5 million
- 1.3: Upscaling of RECP: total net allocation of CHF 4.05 million
- 2.2: RECP for industrial waste minimization, total net allocation of CHF 3.15 million
- 2.3: RECP for safe and responsible production, total net allocation of CHF 2.9 million
- 3.2: RECP financing, total net allocation of CHF 3.0 million

These 5 outputs were operationalised through 8 workstreams (WS):

- Output 1.1: WS1) RECPnet **and** WS 2) Knowledge Management System
- Output 1.3: WS3) Eco-Industrial Parks **and** WS4) Methods and Tools
- Output 2.2: WS5) Industrial Waste Minimisation for Low Carbon Production
- Output 2.3: WS6) Safe and Responsible Production
- Output 3.2: WS7) Financing Instruments **and** WS8) Innovative Business Models.

Key Evaluation Findings

The overall assessment yielded the following key findings:

Programme Formulation is considered to be very complex and has experienced many shifts in evolving from its original multilateral design to implementation with support from primarily a single donor. UNIDO-UNEP's dual role as a Network Developer and Implementer increased the complexity of the design. Views and perceptions of stakeholders were taken into account at various moments, mostly on an ad hoc basis. Guidelines and expectations of SECO influenced formulation on several occasions. **Gender issues** are not commonly dealt with up to now. Country-level fact-finding revealed limited understanding of the strategic value of working on this topic. At the time of programme formulation, the topic of gender had not been prioritized.

Programming and Planning have been adapted based on relevant new insights and various constraints. However, considerable delays have occurred in all workstreams due to these shifts as well as contracting delays. Adaptive management has resulted in "mission drift", to some extent. The remaining period seems short for most of the workstreams to achieve the outputs and to have the impact and sustainability to contribute to the objectives in a satisfactory way.

Relevance of the Programme is seen as high for target beneficiaries in the countries, but expectations were primarily met for those directly involved (funded). The **RECPnet** itself is not a coherent single entity consisting of similar and equal actors but it is often treated as if it has already reached that maturity level. Varying degrees of **ownership** are experienced by RECPnet members. Many aspects of the Programme are still perceived as being driven top-down by UNIDO-UNEP, who are the ones leading the way. There is a persistent attitude that the RECP Programme is a source of funding for the Centres (as opposed to fully understanding its programmatic objectives), although there has usually been a considerable level of in-kind contribution from the Centres.

Efficiency shows high input into scoping and technical studies with high quality results, as well as in networking activities, showing moderate-to-low contribution to the outputs in some workstreams, moderate-to-high (especially WS6) in others. Current co-financing (GEF) of projects increases efficiency. **Effectiveness** of scoping and technical studies is low on average, due to delays and consecutive low influence on industrial projects. Effectiveness of several of the workstreams are considered to have potential; also evidenced by the catalytic effect on generating additional funding, especially through a number of new GEF projects. The growth and development of RECPnet within a relatively short period of time is considered to be quite effective.

Impact for WS 2, 4, 7 and 8 are found to be low up to now, with remedial action underway for WS2 (KMS). Potential for WS 3, 5, 7 is considered substantial but actual impact is relatively low based on the limited number of engaged companies.

Dissemination of potentially valuable outputs is delayed in most of the workstreams. A dissemination strategy is not (yet) in place. The current level of **Sustainability** is low. However, new networked and co-funded projects have recently been started. Policy development has not been identified.

Upscaling, the significant reduction in effort per company to implement, has not yet been documented. A limited number of companies have been serviced for a relatively large budget in scoping and consultancy effort. Upscaling potential looks best for WS6 due to the availability of a practical toolkit and the connection to international networks. Upscaling strategies are not in place for other workstreams and are relevant for WS3 on EIP and WS5 on waste minimisation. As there has been limited attention to RECP drivers, incentives, and policies in the current Programme, **mainstreaming** results have not been reported. WS7 was best positioned to achieve this on finance mechanisms, but it has achieved low results and has not been applied to other Programme activities. **Innovative approaches**, tools, and methods can be found in several of the workstreams (not only in WS8), but these remain largely unused and are applied to a limited extent in the industrial practice targeted by the Programme. Due to the funding background of the Programme, UNIDO and UNEP activities on innovative approaches have been separated and are now more or less running in parallel.

RECP Programme Management is considered technically competent and highly dedicated. On the other hand, the style of management was described as very detailed and hands-on operational, with limited attention to strategy and managing changes in scope and timelines. The UNIDO team is seen as understaffed, overloaded, and without the benefit of a sufficient handover during the recent organisational restructuring. Complex and time-consuming **administration** issues enhanced these problems.

Key Conclusions

The following conclusions were derived from the findings:

Programme Formulation, Programming, and Planning

The initial design, traced back to 2009, was for a multilateral programme. When operationalised, this effectively narrowed to a bilateral program and funding constraints from the outset led to a fragmented design of the workstreams. The funding that was obtained covers 20-30% of the original design. As a result, programming and design have often been ad hoc and seems to be an ongoing compromise between SECO requirements on the one hand and overall integrated programme requirements on the other hand. Connected to this, UNIDO-UNEP's dual role as a Network Developer (vis-à-vis the RECPnet) and Implementer (giving funding through contracts where the final objective is to get results back to achieve programme objectives) has increased the complexity of the design.

There have been delays in many activities of the Programme, due to external reasons and due to the complexities of contracting and payment related procedures within UNIDO (SAP implementation was a major reason). The delays partly reflect adaptive management but one of the outcomes was programme drift, which should be avoided.

Ownership and Relevance

The ownership of the RECPnet is not experienced by members as high as it was expected to be in the beginning of the programme. Varying types of entities, competences, interests, and commitment exist within the RECPnet, which have not yet been dealt with adequately. Overall, relevance of the Programme is considered sufficient-to-high, but activities are often mostly utilized as a funding mechanism for individual Centres. In situations where activities are seen by the Centres as being the right thing at the right time, then these are considered highly relevant.

Efficiency and Effectiveness

The Programme's efficiency is seen as moderate, with the notable positive exception of WS6 which is considered to be delivering the projected outcomes quite efficiently. A good technical quality of intermediate outcomes has been established. On the other hand, effectiveness is evaluated as low-to-moderate for virtually the whole Programme. This is based on a qualitative assessment, since outputs are not detailed and quantified in the initial design, and since the logframe that underpins the Programme has not set objectives for this nor develops criteria.

Impact, Sustainability, and Innovation

Impact is considered as moderate to low until now. Typical outputs toward the final beneficiaries are limited to around 30 companies per workstream because of detailed hands-on involvement instead of leveraging and combining with other and ongoing initiatives. The Programme embarked without an apparent strategy from the start for effective internal and external dissemination. Innovative tools, approaches, and methods can be found in several of the workstreams (not only in WS8), but these remain largely unused and are applied to a limited extent in the industrial practice targeted by the Programme. Potential for future impact is considered high for several of the workstreams. Sustainability seems to be increasing, as results are often obtained networked or in collaboration with other partners. As an example of this, recent catalysing of additional activities (especially under GEF) is considerable.

Upscaling and Mainstreaming

A limited number of companies have so far been serviced for a relatively large budget in scoping and consultancy effort. Effort per company is high, and for now and the foreseeable future, a significant reduction of effort per company is not clearly established within the Programme. The current status on mainstreaming is low. There is little attention to framework conditions in the RECP Programme; if the patron organisations want to incentivize this aspect, there is a need to first build a RECP culture to better embed drivers and incentives in industry.

Programme Management and Administration

There is widespread appreciation of the engagement and dedication of the UNIDO-UNEP Programme Management team. However, there was too low capacity (until recently, significant reliance on 1-2 individuals with insufficient delegation) for such a complex demanding programme, Adaptive management was heavily utilized, including a high level of responsiveness to donor priorities, which led to "mission drift". Complex procedures for contracting and financing have been reported, leading to problems with implementation, creating gaps and loss of momentum and qualified/experienced staff.

Key Recommendations

On the basis of the findings and conclusions, the following key recommendations are offered for the Programme's remaining implementation period, per main target group.

Key Recommendations for UNIDO and UNEP (RECP Programme Management)

1. Reformulate the Programme with a country-level impact and results orientation, clarifying roles and responsibilities in order to segregate the roles of "Network Developer" from that of "Implementer" (of programmatic activities), with a better focus on *SMART* results, integrating relevant gender issues, and enhancing the potential for mainstreaming of the Programme's outcomes.
2. Extend the present Programme to the end of 2017 to be able to deliver successful outcomes and present impact and sustainability, supported by decisions on the level of impact that can be achieved with the current resourcing and delivered with realistic planning, and improved reporting and dissemination of results.
3. Increase relevance for and ownership by RECP*net* members by adopting a more participative orientation, giving more attention to local constraints and opportunities, and earmarking funds for RECP*net* Executive Committee (ExCom) decision-making and contribution in governance roles.
4. Review further expansion of the RECP*net* versus diversification into cooperation with effective partners and networks to increase sustainability and look for opportunities to connect more deeply with other actors to find synergy and replication/multiplication of RECP approaches in other programmes and projects.
5. In further developing the RECP*net*, develop in-house or buy-in expertise on network development and work with the RECP*net* ExCom as an equal partner on this. In combination with this, find lessons learned, typical pitfalls, identify key success factors through exchange with existing network initiatives in related fields.
6. To improve the Programme's innovation aspects, determine how the currently available tools & methods can support improved service delivery by RECP*net* members; develop a common perspective on synergy between RECP and eco-innovation (UNIDO for technical innovation, UNEP for business innovation).
7. Without delay, appoint an overall programme manager in UNIDO with strong project management skills. Insist on 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.
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 RECP*net* members, as this is the basis of trust-building in the network.

Key Recommendations for SECO

With regard to programme formulation:

- reduce direct hand on influencing program 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.

In order to support the desired shift of ownership of the RECP Network:

- increase funding towards RECP*net* and prioritize this aspect in a future funding cycle to support continuing network development, institutional development and strengthening of capacities vis-à-vis the policy role of the Centres.

Related to the topic of securing continued relevance of the RECP Programme:

- beware of putting UNIDO/UNEP in position of doing significant adaptive management to respond to emerging thematic and geographic priorities linked to political objectives.

And related to this, for improved UNIDO management of the programme:

- 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.

Finally, with respect to supporting the Programme in its administration:

- review oversight and governance mechanisms to ensure early feedback (or agreement) on mission drift and scope deviations.

Key Recommendations for RECP*net* Members and Executive Committee

The following overall strategic and operational recommendations are proposed to be taken up jointly with the UNIDO-UNEP programme management team.

To support improved overall programme formulation:

- undertake an assessment of the Centres (self, peer, external) and engage in interactive exchange to identify existing competences and gaps towards building up a stage model (for development of an NCPC), and become more proactive in formulating own priorities and designing own programme activities and searching for donor funding

To enhance ownership of the RECP*net*:

- undertake elections to paid ExCom positions (opened beyond Directors), take on network development and networking functions, and 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)
- make the network come alive: notice and seize opportunities for collaboration and joint activity

To improve efficiency, effectiveness, impact, and sustainability:

- elaborate a long-term strategy for the network, regions, and individual Centres with respect to the efficiency of projects funded by the RECP Programme; identify those with the highest potential for replication and/or synergy with other activities and assess priority of involvement in these projects

With respect to innovation and gender:

- develop a linked offering for technical and business innovation based on complementary UNIDO and UNEP approaches
- identify areas in which gender has strategic relevance for the RECP topic; establish pilot activities to build knowledge; tap existing expertise within the network

1. Introduction

A mid-term evaluation was envisaged, as a standard feature of the governance process, during the formulation of the “global joint UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries” (2012-2016) hereafter referred to as the “Programme”. Such an evaluation is designed to assure accountability, support management decision-making, and drive learning & innovation. The focus of the evaluation is formally limited to the programme activities funded by SECO, but also considers the broader impact of the Programme as a whole.

The Evaluation Team was led by Dr. Joyce Miller¹ as International Evaluation Expert/Team Leader, working with International RECP Expert, Dr. Marcel Cruil² and National Evaluation Experts: Dr. Jianxin Zhu³ (China), Ms. Manal Samra⁴ (Egypt), and Ana Maria González del Valle Begazo⁵ (Perú) who provided invaluable support in the countries selected for country-level fact-finding and made significant substantive contributions to the respective country chapters included in this Report.

The five members of the Evaluation Team were appointed by UNIDO following a competitive selection process; none of these individuals were involved in the preparation nor implementation of the Programme⁶. The evaluation effort spanned the period of July to October 2015.

2. Evaluation Objectives, Scope, and Approach

2.1. Objectives of this Evaluation

This mid-term evaluation serves the dual-purpose of: 1) accounting for grant funding and other resources utilised by the Programme; and 2) documenting and systematizing the experiences gained from the concerted, networked, and knowledge-driven adaptation/adoption of RECP activities in countries, around the thematic applications encapsulated within this global Programme.

These purposes are aligned with serving multiple users of this mid-term evaluation, with their varied and overlapping interests, which are understood as follows:

- UNEP’s RECP Programme contributors and UNIDO’s RECP Programme management team, consisting of the Environment Branch Director, Industrial Resource Efficiency Unit Chief and Project Managers; all of these actors are interested in its findings as a source of knowledge, evidence, and an external perspective regarding the Programme’s performance and practice – with the aim of enabling effective modification of activities in the remaining implementation

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⁵ Environmental Assessor and Administrative Manager, L.G. Ingenieiros S.A., Lima, Perú

⁶ This principle is underlined in the UNIDO Evaluation Policy: “(...) For independent evaluations, 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). (...)”

period, and gaining potential insights and innovations at a sufficiently early stage that can be used to inform future programme design

- The Government of Switzerland (SECO – State Secretariat for Economic Affairs), which has provided the bulk of the funding for the present programme, in order to assess the results, outcomes, and impacts of the subset of programme activities it funds, as a guide for its own international technical cooperation policy and strategy, as well as an input into the consideration of future support options
- Partner Organizations (RECP*net* membership) which individually and collectively, have an interest in assessing the results and impacts of activities funded and implemented within the 8 workstreams supported by the Government of Switzerland, with a view to furthering the adaptation and adoption of RECP in developing and transition countries globally
- The UNIDO Office of Independent Evaluation (EVA), to gauge the extent to which the evaluation process has been carried out in a systematic and impartial manner, providing evidence-based information that is credible, reliable, and useful – thereby facilitating timely integration of findings, recommendations, and lessons into decision-making processes at unit, programme, and project levels
- Other development cooperation actors who may be interested in the RECP and/or closely associated topics and/or the ways in which such a programme design (which is de facto implemented as an aggregate of different projects each designed in accordance with the programme strategy to address specific country needs and thematic and/or sectoral priorities) is actively functioning as an exemplary intervention that is succeeding in mobilizing enterprises, particularly SMEs from the manufacturing and related productive sector to “green” their operations and become more efficient in their use of natural resources (materials, energy, water) and less polluting (in terms of the generation and discharge of waste water, waste, emissions).

Accordingly, this mid-term evaluation was mandated to:

- Take stock of achievements and experiences, thereby providing an initial assessment of the Programme’s performance with respect to *innovation, efficiency, effectiveness, impact, and sustainability* vis-à-vis the Programme’s logical framework and its organizational and institutional arrangements for its programming, implementing, management, and monitoring
- Ascertain the continued relevance of the Programme’s objective, outcomes, outputs, and activities regarding RECP for SMEs globally, considering evolving international and national development agendas (including the SDGs agreed upon in 2015)
- Provide recommendations for enhancing impact and sustainability of the present Programme over the remaining implementation period to end of 2016 (and potentially beyond), particularly with respect to:
 - Theory of Change for implementation of RECP at speed and at scale
 - Institutional set-up and operational models for sustained RECP service delivery at the national level (through Centres and other RECP*net* members) and at the global level (through RECP*net* and/or other initiatives)

- Monitoring and evaluation, especially indicators for assessing RECP uptake at different levels (policy, institutions, enterprises, etc.), thereby capturing programme benefits

2.2. Scope of the Evaluation

The Terms of Reference (ToR) for this mid-term evaluation (refer to **Annex 12**) were drafted by the RECP Programme Management and approved by the UNIDO Office of Independent Evaluation, reflecting UNIDO’s Evaluation Policy⁷ and the UNEG Evaluation Norms and Standards⁸.

This ToR directed the Evaluation Team to focus primarily upon the findings from activities spanning the 8 workstreams that are in the course of being implemented in full through funding provided by SECO and visualised in **Table 1** “under present Project”, which reflect and are aligned with the geographic and thematic aspects underpinning the Swiss Government’s own national policy objectives on technical cooperation.

Table 1. Programmatic Activities under the Present Project Covered by this Mid-Term Evaluation

Workstream	Target Countries		
	Contributions to knowledge capture	Hosting pilot activities	
		Under present Project	Funded otherwise
1. RECPnet	all	n/a	Colombia, Egypt , Kenya, Mexico, Morocco, Perú , Rwanda, Serbia, South Africa, Sri Lanka, Uganda, Ukraine, Viet Nam
2. RECP Knowledge management	all	n/a	n/a
3. Eco-Industrial Parks	Cambodia, China , Colombia, Costa Rica, Egypt , El Salvador, India, Morocco, Perú , South Africa, Viet Nam	China , India, Perú	Indonesia, Tunisia, Viet Nam
4. RECP Methods and Tools	n/a	China , India	Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine
5. Industrial Waste Minimization	All	Cambodia, China , Columbia, Perú , Viet Nam	Egypt
6. Innovative Chemical Solutions	All	Colombia, Egypt , El Salvador, Morocco, Perú	n/a

⁷ Available from www.unido.org

⁸ United Nations Evaluation Group (UNEG), Norms for Evaluations in the UN System, 29 April 2005

7. RECP Financing	All	n/a	Georgia, Indonesia, Ukraine
8. Innovative Business Models	All	n/a	Brazil, Colombia, Croatia, Ecuador, Egypt , Mexico, Nicaragua, Perú , Serbia, Sri Lanka

Within **Table 1**:

- The countries listed “under present Project” correspond to 13 priority countries eligible for country specific activity funding under the present programmatic funding; namely: Cambodia, China, Colombia, Costa Rica, Egypt, El Salvador, Guatemala, India, Jordan, Morocco, Perú, South Africa, and Vietnam
- Countries featured in **bold** were the subject of country-level fact-finding under the scope of this mid-term evaluation
- Further activities have been “funded otherwise” in a variety of countries, by a variety of different donors (including the EU, GEF, Austria, Slovenia) as well as in some countries by SECO (in particular Indonesia, Lao, Myanmar, Tunisia)

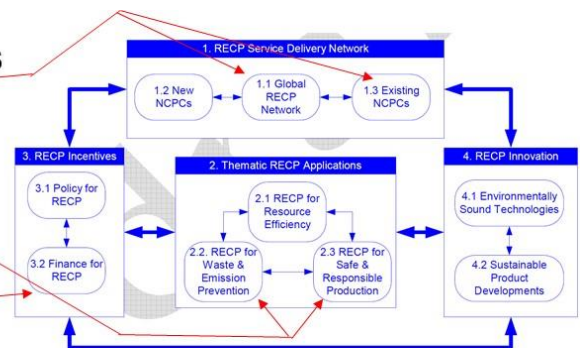
Given the specified scope of the ToR and the limited resourcing and duration of this evaluation, these “funded otherwise activities” were excluded, for the most part, from the detailed evaluation effort.

From a thematic perspective, the scope of the mid-term evaluation was directed towards those aspects supported by the SECO funding, visualized in **Figure 1**.

Figure 1. Swiss Funding Support Channelled towards Selected Programme Outputs

Thematically – supporting selected programme outputs

- RECP Network (1.1)
- RECP Scaling up (1.3)
- RECP for Waste and Pollution Prevention (2.2)
- RECP for Safe and Responsible Production (2.3)
- RECP Financing (3.2)



Furthermore, the Evaluation Team was asked to consider three cross-cutting impact dimensions, which are described as follows in the context of the present Programme:

- Innovation – referring to methods, tools, techniques, financing and/or policies that are new and as yet unproven in the recipient countries, thereby contributing insights regarding their application and expanding the set of available implementable RECP solutions
- Scale – referring collectively to the number of enterprises serviced, the size of impact of RECP implementation, and/or (publicly-funded) time and effort for RECP implementation

- **Mainstreaming** – referring to the extent to which RECP has been embedded within the national DNA of developing and transition countries through the creation of policies, strategies and institutions that effectively encourage and reward RECP implementation and by implanting RECP in the hearts and minds of business and government leaders, organizational managers and staff, and society at large.

As well, this mid-term evaluation was to consider the following synergistic intervention levels:

- **Global** – related to the creation of the RECP*net* and implementation of its activities with respect to networking, advocacy, knowledge capture, and knowledge utilization
- **National** – related to the piloting of new approaches, methods, tools, and/or techniques and the expansion of RECP service providers' capacities in the respective countries

Undertaken during July to October 2015, this mid-term evaluation covered activities of the first 3.5 years of the Programme's implementation (notionally from December 2011 to June 2015).

2.3.Key Issues and Questions Covered by the Evaluation

The Evaluation Team was requested to address the following aspects:

a) Programme Formulation

The extent to which:

- The views, perceptions, and experiences of the target group (SMEs in developing and transition countries) have been considered, addressed, and incorporated in program design and implementation
- The views, perceptions, and capacities of national stakeholders (e.g. government, business organizations, and civil society) have been assessed and addressed in the design and implementation of the Programme
- The guidelines and expectations of the donor (the Swiss Government) have enabled and/or constrained program design and implementation

b) Programming and Planning

The extent to which:

- The knowledge, experiences, views, perceptions, and capabilities of the implementing partners (i.e. RECP service providers in beneficiary countries and RECP knowledge institutions globally) and their respective national stakeholders (beneficiary governments, business sectors, etc.) have been considered in the formulation of the workstreams, detailed planning of activities, and selection of countries for pilot activities – and effectively utilized in implementation, monitoring, and review of these activities

c) Ownership and Relevance

The extent to which partner organizations have been:

- appropriately involved in identifying critical problem areas of target beneficiaries
- participated in the refinement of programme strategy
- engaged in actively supporting the implementation of the Programme, including through in-kind and/or cash contributions

To sufficiently achieve the expected outcomes and objectives over the present duration of the Programme, the extent to which outputs, as formulated in the Programme's logical framework:

- are relevant to the target beneficiaries
- have been adequately balanced in their selection
- have been progressing in a balanced way (considering financial, institutional, human, and other resources available to the Programme)
- continue to be relevant to the target beneficiaries, considering national, regional, and global developments

d) Efficiency of Implementation

The extent to which:

- The resources and inputs of UNIDO (including those made available through the Swiss Government) and its partner organizations have been provided as planned and are adequate to achieve the Programme's requirements and respond to the needs of the target beneficiaries
- The quality of the inputs and services provided by UNIDO and its partner organizations were planned and led to the development of the planned outputs

e) Effectiveness

The extent to which the outputs:

- have been achieved as planned
- are of a quality and appropriateness that serve the intended use of the target beneficiaries
- are likely to be further utilized by the target beneficiaries

The extent to which:

- the programmatic activities funded by the Swiss Government under the present grant have served as a catalyst for additional activities and funding commitments

f) Impact and Sustainability

The extent to which it is likely that:

- long-term development changes (economic, environmental, societal) have or will occur as a result of the Programme, and will be sustained after its completion
- there will be replication and/or multiplication of the activities and outputs by partner organizations and/or other stakeholders,
- guidelines and expectations of the donor (the Government of Switzerland) have enabled and/or constrained program design and implementation

The extent to which provisions have been made for sustaining the impacts achieved through the Programme in terms of:

- human and institutional capacity for RECP service delivery
- economic, environmental, resource productivity benefits for assisted enterprises
- adoption and implementation of new policies, strategies, and financial arrangements conducive to RECP in targeted industry sectors

g) Project Coordination and Management

The extent to which:

- Management, coordination, administration and quality control of the Programme by UNIDO, in cooperation with UNEP and representatives of the *RECPnet* (particularly its elected Executive Committee) have been efficient and effective, including mobilisation and/or leveraging of resources and inputs by the partner organizations
- Monitoring and self-evaluation have been carried out, based on indicators for outputs, outcomes, and/or objectives with the resulting information used for the steering and adaptive management of the Programme
- Synergistic benefits have been achieved relative to other activities of UNIDO, UNEP, and/or the partner organizations in beneficiary countries and/or elsewhere in developing and transition countries globally

h) Gender

The extent to which:

- gender aspects have been considered and/or mainstreamed in the Programme

2.4. Evaluation Approach and Methodology

The evaluation was guided by the provided ToR (see **Annex 8**) with its stated scope, together with consideration of the available timeline for the effort and its resourcing.

The approach chosen was primarily qualitative and more thorough, probing and holistic than what certain actors appeared to be accustomed to – with the aim of

developing insights into fundamental strengths and shortfalls as a basis for drawing lessons learned and recommendations.

The choice of what data to collect was based on its availability within the needed timeframe and its diversity to provide for triangulation of findings and the use of fact-based evidence. In this respect, the main sources of data collection included:

- Desk research of key documents provided by UNIDO, UNEP, and relevant partner organizations
- Interviews (face-to-face and by telephone) with UNIDO and UNEP programme staff from Vienna and Paris, respectively
- Interviews (face-to-face) with RECP*net* Executives
- Interviews (telephone) with key external consultants involved in implementing programmatic activities
- Interviews (face-to-face and by telephone) with the major donor, in Switzerland and with SECO/Swiss Embassy representatives in the countries selected for the country-level fact-finding missions
- Interviews carried out with key staff within National Cleaner Production Centres (Centres) in 3 countries (China, Egypt, and Perú) taken as illustrations for the national programming and implementation of the global programme framework
- Interviews (face-to-face and telephone) carried out with key stakeholders (government, target beneficiaries, business associations, etc.) impacted by or engaged within the national activities implemented by the Centres in China, Egypt, and Perú
- Survey of RECP*net* membership (including 70 Centres/NCPPs and other RECP member organizations, globally).

Annex 1 contains a list of interviewees.

Annex 2 contains a list of documents consulted.

Annex 3 contains aggregated financial information per workstream until 30 June 2015.

Face-to-face and telephone interviews were conducted using a semi-structured guide, which is contained within **Annex 4**. Notes of these discussions were prepared and coded according to the key evaluation issues and questions so that they could be a useful resource for the Evaluation Team and provide a trace back to the evidence underpinning the findings.

The survey that was administered to the RECP*net* membership, which gathered both quantitative and qualitative responses, is contained within **Annex 5**.

Annex 6 contains the list of RECP*net* members that responded to the survey. Of the 70 members contacted, 27 responses were received within 1 month, representing a 38% response rate. Given the depth of the survey and the relatively short timeline provided for response, this level of response is judged to be quite good. The quantitative data gathered through this survey is contained in **Annex 10**.

The institutional analyses of the Centres within the three countries selected for the fact-finding missions were carried out using the framework for self-evaluation (covering the five dimensions of: Strategy, Autonomy, Operational Management, Business, Expertise) contained within *Good Organization, Management and Governance Practices: A Primer for RECP Service Providers*, jointly published by UNIDO and UNEP in 2009.

The work plan that was carried out is depicted in **Table 2**. In view of the above-mentioned time and resource constraints, priority was given to:

- gathering fact-based evidence to the largest extent possible through the desk research of key documents identified and obtained within the available timeframe
- responses to a survey that was formulated by the Evaluation Team and launched after mid-August 2015
- interviews carried out as part of the three country-level fact-finding missions, and interviews carried out with UNIDO and UNEP programme staff, relevant external consultants engaged in the implementation of programmatic activities, and the Swiss Government in its role as the major funder.

Table 2. Work Plan for the Mid-Term Evaluation

Activity	Timeframe	Involvement of Evaluation Team Members	Location
Desk research for analysis of workstreams	July – October 2015	All team members	Home-based, respectively
Face-to-face Interview with former Programme Manager	5 July 2016	International Evaluation Expert	Jakarta, Indonesia
Kick-off meetings with UNIDO, UNEP, and RECPnet Executives	14-16 July 2015	International Evaluation Expert International RECP Expert	Vienna, Austria
Development and administration of RECPnet survey	July – September 2015	International RECP Expert International Evaluation Expert	Home-based, respectively
Fact-Finding Mission in China	19-25 July 2015 (including travel)	International Evaluation Expert National Evaluation Expert	Beijing, China
Development and submission of Inception Note	August 2015	International Evaluation Expert International RECP Expert	Home-based, respectively
Approval of Inception Note	August 2015	UNIDO Office of Independent Evaluation	Vienna, Austria
Fact-Finding Mission in Egypt	16-20 August 2015 (including travel)	International Evaluation Expert National Evaluation Expert	Cairo, Egypt
Interview with Donor	21 August 2015	International Evaluation Expert	Bern, Switzerland
Fact-Finding Mission in Perú	23-28 August 2015	International Evaluation	Lima, Perú

	(including travel)	Expert National Evaluation Expert	
Interviews with international consultants and other relevant actors	September 2015	International Evaluation Expert	Home-based
Data analysis	September 2015	All team members	Home-based, respectively
Drafting of Evaluation Report	September 2015	All team members	Home-based, respectively
Discussion of early draft of Evaluation Report with UNIDO	28 September 2015	International Evaluation Expert National Evaluation Expert	Home-based, respectively
Presentation and discussion of draft Evaluation Report with UNIDO and UNEP	4-5 October 2015 (including travel)	International Evaluation Expert International RECP Expert	Vienna, Austria
Finalisation of Evaluation Report, integrating feedback	By 12 October 2015	All team members	Home-based, respectively
Presentation of key findings in RECPnet's 4 th Global Networking Conference	11-12 October 2015	International Evaluation Expert	Davos, Switzerland

3. RECP Programme Background

The Independent Evaluation of National Cleaner Production Centres (Centres) Programme of UNIDO/UNEP (2008) provided the findings, lessons learned, and recommendations on which the current jointly implemented UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries Programme was based.

From a design perspective, the Programme is intended to scale up and mainstream the application of RECP methods, practices, and policies in developing and transition countries through the application of novel approaches, tools, and techniques at enterprise, sector and/or regional levels.

In its actual implementation, the RECP Programme has been described as being an aggregate of different projects each designed according to the programme strategy to address specific country needs and thematic and/or sectoral priorities. Some activities are thematically focused and implemented in parallel in multiple countries, and these form the main focus of the present mid-term evaluation.

The Programme is intended to function as an exemplary intervention for mobilizing businesses (particularly SMEs from manufacturing and related productive sectors) and other organizations to “green” their operations and become more efficient in their use of natural resources (materials, energy, water) and less polluting (in terms of the generation and discharge of waste water, waste, emissions), thereby contributing to the promotion of sustainable industrial development and Sustainable Consumption and Production (SCP) in the participating countries.

Accordingly, the Programme is built on four intermediate outcome categories, each of which is expected to contribute towards the overarching outcome, both individually as well as synergistically, as follows:

RECP Service Delivery Network: RECP service delivery



capacity is enhanced through National Cleaner Production Centres/Programmes (Centres/NCPP)s, 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 address the needs of enterprises and other organizations

Implemented primarily by UNIDO

Thematic RECP Applications: implementation of RECP by businesses and other organizations with verified resource use, and environmental, economic and other social benefits

Implemented jointly by UNIDO and UNEP

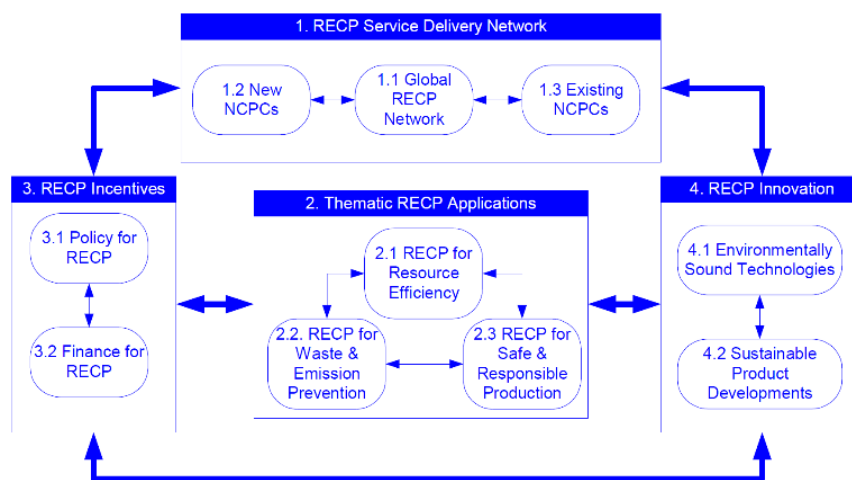
RECP Incentives: Mainstreaming of RECP in relevant government policy, regulations, and enterprise finance, leading to an effective enabling environment for businesses to implement RECP

Innovation Capacity: Strengthening of national capacities for implementation of environmentally-sound technologies and sustainable product development

Implemented primarily by UNEP

The Programme has been further structured into a total of 10 outputs as visualised in **Figure 2**.

Figure 2. The 10 Programme Outputs Constituting the RECP Programme



For the 5-year period of 2012-2016, the Government of Switzerland confirmed funding to UNIDO in the amount of CHF 14.6 million for the implementation of programmatic activities under the global RECP Programme.

In the Letter of Agreement dated 15 November 2011, the following geographic and thematic priorities were specified:

- *Geographically*, with respect to the implementation of in-country pilot activities under the present programmatic, funding is focused on 12 (13) short-listed priority countries, respectively: Cambodia, China, Colombia, Costa Rica, (Egypt), El Salvador, Guatemala, India, Jordan, Morocco, Perú, South Africa and Vietnam. Egypt was added to this list as of

January 2013, and Myanmar and Indonesia in June 2015 (the latter two were therefore not considered within the present mid-term evaluation)

- *Thematically*, meaning that the financial support is limited to support the following programme outputs:
 - 1.1: Global RECP network: total net allocation of CHF 1.5 million
 - 1.3: Upscaling of RECP: total net allocation of CHF 4.05 million
 - 2.2: RECP for industrial waste minimization, total net allocation of CHF 3.15 million
 - 2.3: RECP for safe and responsible production, total net allocation of CHF 2.9 million
 - 3.2: RECP financing, total net allocation of CHF 3.0 million

Reflecting this design objective, the Programme has been operationalised through 8 workstreams, elaborated within a traditional logical framework (contained in full within **Annex 12**).

The contributions of the 8 workstreams have been described as follows:

Workstream 1 - Operational Support for RECPnet (contributing to Output 1.1)

Aimed at implementing the work plan of the RECPnet, under the guidance of its elected Executive Committee, which prioritizes 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)

Workstream 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.)

Workstream 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)

Workstream 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.

Workstream 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) is supported to further the transfer and development of climate technologies in manufacturing and associated productive sectors

Workstream 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

Workstream 7 – Financing Instruments (contributing to Output 3.2)

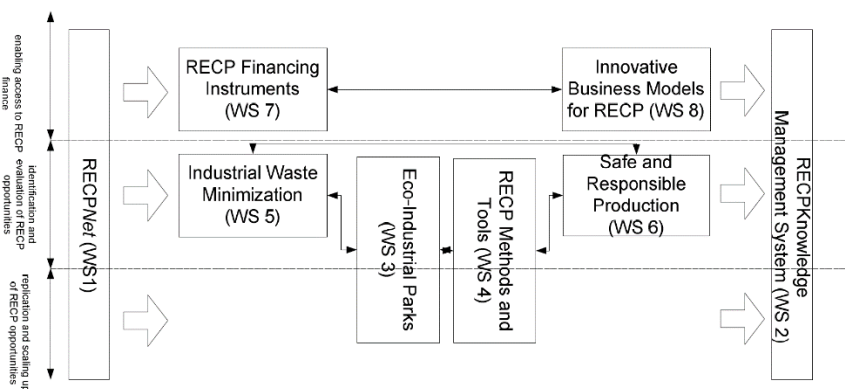
Aimed at assessing and promoting innovative financing instruments for mainstreaming RECP into enterprise finance, including for example: incentive grants, subordinated loans, leasing, etc. (often all clubbed together under ‘green’ financing instruments)

Workstream 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 enabling the application of RECP practices/technologies), activities aimed at promoting service-based business models that reduce the investment burden on SMEs for accessing and implementing innovative RECP practices and technologies.

While corresponding to 5 selected programme outputs, these 8 workstreams and their respective outputs were also intended to be synergistic and inter-related, as visualised in **Figure 3**.

Figure 3. Inter-Relatedness Amongst the 8 Workstreams Linked to 5 Programmatic Outputs



This design seems to be predicated on the notion that the identification and evaluation of RECP opportunities is at the heart of the action (WS3 and WS4 for scaling up, WS5 and WS6 for fostering depth, and that once developed, these improvement opportunities need access to enabling RECP financing (WS7) supported by Innovative Business Models (WS8), all captured by the knowledge management system (WS2). All of this is to be fed by the RECPnet (WS1).

4. Evaluation Findings: Overall RECP Programme Assessment

4.1. Programme Formulation

The RECP Programme was initially conceived with a budget of 69.4 million EUR taking place over a 5-year duration, covering 42 countries in 4 regions, to be jointly implemented by UNIDO and UNEP, coordinated with the Ministries of Industry and Environment in the participating countries and partnering with the international RECP network of service providers for its implementation.

It was hoped that through the creation of the *RECPnet* and by doing something on a bigger scale, this framework could become relevant and be linked to issues on the global agenda. The Programme also provided the thematic framework for additional funded projects from GEF, the EU, etc. The Programme's highly complex design as an aggregate of different projects each to be developed within the overall strategy to address specific country needs and thematic and/or sectoral priorities was to also fulfil four outcome categories. Specified in the 2009 programme document, these outcomes spanned the breadth of driving and supporting:

- effective networking and peer learning
- implementation of RECP by industry
- effective enabling environment for RECP implementation
- enhancement of national capacities to facilitate and manage the transfer, adaptation, and replication of Environmentally-Sound Technologies (ESTs) and sustainable product development

At the time of its formulation, it was foreseen that this programme would be funded by a multiplicity of donors, thus giving it a multilateral orientation where interests could be balanced.

Finally, the RECP Programme started in 2012 with confirmed funding support from a single donor, the Government of Switzerland, in the amount of CHF 14.6 million – around 21% or one-fifth of the budget that was originally scoped. No further donors initially came forward. As the Programme progressed, in thematic terms, additional funding was leverage from GEF (for WS Eco-Industrial Parks), the EU and UN. In this respect, as elaborated in section 8.4 below, the SECO funding was seen, to some degree, as “seed” money for additional projects within the Programme framework. Also, the establishment of another dozen Centres was funded separately, contributing de facto to the global RECP network and programme.

No documentation was uncovered to suggest that the initial programme design was altered in view of the significantly reduced funding situation. It seemed to be rolled out in an ad hoc manner, continuously compromising between the expectations, hopes, and priorities of the Swiss Government and the overall integrated requirements of the very complex and ambitious programme outlined in the programme document.

The Swiss Government was a frontrunner in promoting resource efficiency and has deep roots invested in this topic. Its partnership with UNIDO on resource efficiency and cleaner production approaches two decades. Based on the series of preceding

evaluations as well as this present mid-term programme evaluation, it is understood that this principal donor views the RECP Programme very positively. Moreover, the RECP Programme is viewed as a policy instrument that fulfils a variety of objectives including the possibility to promote technology transfer, bolster resource efficiency and address climate change, which was at the heart of the historical impetus for the establishment of the Centres. Growing international interest in the topic (SDGs, the EU resource efficiency flagship programme 2020, G7 Declaration 2015) has proved that the early and continuing investment in resource efficiency was the right thing to do.

There is every reason to believe that the partnership between the Swiss Government and UNIDO-UNEP can and will go on.

4.2. Coordination and Management

For the bulk of the implementation period under the scope of this mid-term evaluation, the RECP Programme was managed by the Unit Chief (Cleaner Production Unit) of UNIDO's Environment Branch, acting as coordinating project manager, with a small cadre of project managers each assigned responsibility for a set of workstreams, in principle, they were seconded by each other in case of absence.

Amongst those interviewed, there was widespread acknowledgement and appreciation of the engagement and dedication of this team to the Programme.

UNIDO was generally perceived to be in the seat of client, in issuing calls for proposals and disbursing contracts to members of the RECP^{net} and various international contractors. Within this context, the role of the RECP Project Manager was generally played out with a large component of being a technical advisor. Some interviewees reported being "on a very short leash" with close supervision while others indicated that there was a continuous exchange and dialogue to establish a consensus for moving forward.

Observed from the outside, it appears that the individual preferences and competences of the Project Managers had a strong influence on the way in which their workstreams were operationalised and there was significant freedom of action to do so. Some requests for input remained unanswered for months; in other cases, people indicated that they could count on having a response within 24 hours. Impressions of Project Managers having to run from one place to another were frequently mentioned. Some travelled extensively, attending meetings, performing official functions, while also regularly checking in with their national implementation partners and at times, closely following the activities being implemented. It was reported that the Programme seemed to depend too much on just a couple of people. For the most part, the Vienna team was viewed as being too operational, dominated by technically-oriented individuals who quickly jumped on the technical issues that came up, while neglecting traditional project management tasks (e.g. managing scope, delivery timelines, budget, quality, risks and resources).

Significant delays were mentioned across virtually the entire program (also seen in the low level of spending by this stage of the programme, as shown in **Annex 3**). The delays were characterized as being a "structural" problem. There were numerous instances where contracts and renewals were critically delayed, which caused projects to lose momentum and had negative impacts for the international contractors involved (difficult to plan activities, shift manpower) and for the Centres (staff impacts, talent

retention challenges, financial planning issues), which were UNIDO's implementing partners and an important beneficiary group for the RECP Programme. The UNIDO bureaucracy and introduction of SAP were mentioned as strong contributing factors underlying delays.

Interviewees mentioned that this mid-term evaluation itself should have taken place one year earlier (i.e. summer 2014) for its results to be meaningfully digested and operationalised. Frustration was expressed about the situation of carrying out a mid-term evaluation 3.5 years into a 5-year programme when it was planned from the beginning as a standard part of the governance process. If the experience in the scoping, management, and implementation of this current mid-term evaluation would be in any way representative of the overall programme, what can we learn from this?

The breadth and depth of the evaluation issues mandated within the provided ToR (see **Annex 12**) were considered to be relatively ambitious and demanding, given the limited resourcing and the timing of the evaluation effort. The stated duration was to be April to August 2015, with the results to be available and discussed with the Programme Management team in Vienna, and crystallised for presentation in the 4th Global Networking Conference of the RECPnet (12-16 October 2015 in Davos, Switzerland).

The evaluation effort was finally launched end June 2015, with the contracting of the International Evaluation Expert/Team Leader and the International RECP Expert. The identification and contracting of the three national evaluation experts to prepare and support the three fact-finding missions was only initiated in July and extended through to mid-August, with the respective contracting of the national experts only concluded very shortly before the beginning of each the country-level fact-finding missions (China: July 17-24; Egypt: Aug 16-20; Perú: Aug 23-27). The three country-level fact-finding missions were prepared and implemented at very short notice during an important holiday period (Ramadan, Eid el Fitre, European summer vacation), which put added pressure onto these stakeholders. The delay in getting the needed resources in place shifted the burden of preparation of these missions to the respective Centres.

Reasons for delays in the initiation and continuation of activities were varied. Respondents regularly mentioned that the Vienna-based team is under-staffed and over-loaded and that this is a chronic problem. More recently, it is understood that the retirement of the Environmental Management Branch's Director in October 2014 coincided with a funding set-back to UNIDO, leading to the decision to abandon the position and merge at short notice two previous branches into a single branch. There was significant upheaval over the course of this period with the position of several Project Managers being unclear, the departure of key senior staff to other responsibilities within UNIDO without a sufficient handover process, a perception of weak ownership of the remaining team due to delays in finalizing organisational changes, the fusion of services within the Unit and reconfiguration of the organigram, and a temporary 50% reduction in staffing resources while replacements were being recruited. This could be perceived as an indication that project implementation (technical assistance) is no longer a top priority for UNIDO top management (DG and EB). The tremendous level of complexity that came with the changes in internal structure was experienced as significantly slowing the Programme's progress, although delays were already evident in the preceding period.

Respondents frequently mentioned that they perceive UNIDO as an organization that is quite heavily administrative, which put a significant burden onto the RECP Project Managers, who get engaged into internal procedures that make it a challenge for them to operate more efficiently. Procurement was frequently criticized. It was not clear to the Evaluation Team whether delays were linked to the above-mentioned upheaval and complexity and/or whether there were challenges emerging from the procurement activities themselves. It was understood at the time of this evaluation that a thematic evaluation of UNIDO's procurement process/services was underway, which can hopefully shed light onto this situation.

4.3. Consideration of Gender Aspects

The Evaluation Team was asked to assess the extent to which gender aspects have been considered and/or mainstreamed. Gender equality or empowerment is not actually mentioned in the RECP Programme formulation and reporting that has been reviewed. Interviewees were surprised to be questioned on this topic. It is understood that the Programme was designed in an era when this topic was not prioritized.

About two thirds of the survey respondents indicated that aspects on gender equality/empowerment are already considered or mainstreamed in their organization at a sufficient or high level. Several Centres have an active policy on gender, especially with respect to team composition for EU-funded projects. In (most) other centres, gender issues are not (yet) considered.

Explorations carried out during the country-level fact-finding revealed limited understanding of the strategic value of the gender aspects and the ways in which this dimension could meaningfully support the pursuit of the designated objectives. Consideration of the gender aspect was typically linked to mentioning the proportion of females hired in staff positions and perseverance in recruitment against the (male) preferences of national administrations. It was observed that there was a relatively high share of women in office staff positions with predominantly men engaged to undertake (external) consultancy.

When discussions touched on the topic of gender, they were typically raised to the general challenge of talent retention, which was considered to be a much more pressing issue; in fact, this is a threat facing all the Centres.

The work of the Centres is seen as equipping young professionals with very valuable sought-after competences within the local market. The often low level of compensation offered within the Centres prompts staff to look for continuing professional development opportunities elsewhere, which are quickly seized as external organizations recognize their competency level.

4.4. Catalysing Additional Activities and Funding Commitments

The programmatic activities funded by SECO under the present grant were expected to serve as a catalyst for additional activities and funding commitments. **Table 3** shows the scale and diversity of complementary activities that have been leveraged as a result of the Swiss global support for the RECP Programme. These activities provide future potential for upscaling the outcomes of the related workstreams. The RECP Programme team in Vienna is to be congratulated on these achievements, which are seen very positively by the Evaluation Team.

Table 3. Complementary Activities Leveraged as a Result of Swiss Global Programmatic Support

UNIDO Projects	Project Manager	Overall Project Budget	Donor	RECP Programme Contribution
Climate Technology Centre and Network (ID 120444)	S. Alhilali (P. Nussbaumer)	USD 934,579	GEF	CHF 355,000
		EUR 491,100	UNIDO	
Technology Transfer in Cambodia (ID100223)	S. Alhilali (P. Nussbaumer)	USD 1,947,000	GEF	CHF 200,000
Eco-Industrial Park Project in Vietnam (ID 100052)	S. Alhilali (J. Stucki)	USD 3,524,000	GEF	CHF 88,5000
Elimination of lead in paint in the Andean region involving 4 countries (Bolivia, Colombia, Ecuador and Perú) awaiting the last two endorsement letters from government. Project approval is expected in November 2015	P. Schwager	USD 8,000,000	GEF	Not known
Global promotion of green chemistry with pilot cases in Brazil, Colombia, Uganda. Anticipated approval in November 2015	P. Schwager	USD 15,000,000	GEF	Not known
Promotion of eco-industrial parks in Perú Anticipated approval in December 2015	P. Schwager	USD 40,000,000	GEF	Not known
National RECP Programmes, EaP Green, MED TEST, etc.	Information not available to the Evaluation Team			

5. Evaluation Findings: Assessment of Outputs & Related Workstreams

In this chapter, the Evaluation Team's findings are presented for each of the 5 outputs and their 8 related workstreams. These findings are based on the results of the survey (the quantitative data under contained in **Annex 10**), interviews carried out (refer to **Annex 1**) and programme and workstream reporting assessment.

The following dimensions were taken into account, in accordance with the evaluation issues and questions delineated in Chapter 6, which include:

- Programme formulation and planning
- Ownership
- Relevance
- Efficiency
- Effectiveness
- Impact
- Programme Management
- Problems /issues stated
- Lessons learned
- Budget – financial issues

5.1. Output 1.1: RECP Network (WS 1 and WS2)

This section contains the assessment of W1 on RECP*net*, and WS 2 on the Knowledge Management System (KMS) based on the interviews and survey carried out, the narrative progress reports, and the workplan on this part of the programme reporting by the responsible UNIDO staff (refer to **Annex 2**).

SURVEY

One third of the 27 respondents consider the support from the Programme to develop the global network to be insufficient, with 2/3 indicating sufficient (52%) or good (13%). A similar division can be seen for 75% of the Centres that answered the survey, which indicated that they have benefitted from RECP*net* in their service delivery. There is clearly room for improvement here, and most of the Centres indicated that they would feel more ownership of the network by having more joint projects, followed at quite some distance by a need for more frequent contact, exchange, and support with tools, methods, and events.

In connection to this, the role of RECP*net* to achieve more importance for RECP was rated relatively low: 70% rated this role as non-existing or low, and 30% as mostly low or very low. Reasons stated for low importance include RECP as a little or unknown concept, confusion/competition with other concepts, such as Green Growth and absence of visible activities by the network. Positive answers showed considerable influence, particularly on government and policy level.

The ratings for the Knowledge Management System (KMS) was the lowest of the survey. Two thirds of respondents rated the present usability of the current KMS as low or insufficient, and one third as sufficient; nobody rated the usability as high.

The relevance of the information contained within the KMS was rated by 55% as low or insufficient, and by 45% as sufficient. Similar ratings were given for information that

the Centres found outside the RECP*net*'s KMS system, indicating that for the Centres, there is no difference from where they retrieve their information.

It was already clear from discussions and interviews carried out before the survey was initiated that the KMS does not yet function properly, so we asked for the needs of member organisations that could be addressed by an improved KMS. These answers varied from updated methodologies, training materials, benchmarking, cases and technologies to information on calls for proposals, consortium-building and administrative support with proposal writing. Respondents affirmed that their contributions to the KMS could increase if the quality of the KMS itself was increased, the KMS is more frequently updated, and more information about new entries was communicated regularly.

INTERVIEWS

The value of this global network, as both a concept and as an asset, was underlined by virtually all of the interviewed actors, spanning across both internal members of the network and those external who perceive they have a stake in its existence. A minority of views were expressed that having now invested so much in the establishment of this network, there was quite a high risk that other potentially relevant actors on the landscape would not be considered, in that the RECP*net* members now must be "used".

Some institutional actors have expressed a very optimistic view of the RECP*net* as a policy instrument, functioning as a natural connecting point between agendas for industrial development and environmental protection; in this respect, the RECP*net* is viewed as an institution with the possibility to coherently act as a force on the global stage in relevant political processes (e.g. 10YFP on SCP, SDGs) and at national level (e.g. implementation of SCP action plans) with its constituting members being in a position to voice SME needs, risks, and opportunities in fora at multiple levels. Visions were outlined for RECP*net* members to become a central hub within their national settings for RECP policy, technology, and finance-related initiatives. The existing capacities of the bulk of RECP*net* members were, for the most part, seen as falling short for actually performing these roles. The level of clarity regarding mission and ability to formulate and fund a business model were identified as important drawbacks. The national context of a Centre (extent of autonomy, governance structure) was also seen to strongly influence its ability to pursue certain roles and partnerships, including participation in the network itself, which has to be justified.

Many of the interviewees acknowledged that the RECP*net* is still very much in a transition phase from the mostly UNIDO/UNEP-led NCPC network at the beginning of the programme period (2009-2010) to the desired vision of being a broad vibrant network where leadership and ownership is taken by the member organisations themselves.

While communication has been largely UNIDO-centred, some regions (particularly Latin America) stimulate frequent communication amongst themselves, facilitated by communication tools outside of the RECP*net* (e.g. WhatsApp). Some isolated instances of South-South communication and collaboration have been observed, with a few Centres offering support on the establishment of a new NCPC, stakeholder analysis, and delivering RECP capacity-building in other national settings (these support activities appear to have been funded by UNIDO, not offered by the Centres

themselves on a fee basis). There are also instances where some Centres have opportunistically joined forces in the development and submission of regional proposals. However, this activity and culture of communication and collaboration do not yet permeate the network.

Interviewees indicated that membership in networks is an integral part of daily business and that while being part of the RECP*net* is of value, at the same time, organisations are members of numerous networks and already have many other relevant partners.

RECP*net* members are viewed as technical partners for the delivery of institutional work programmes. Nevertheless, one outcome that was observed was the eventual selection of a relatively small group of 10-12 Centres for the implementation of activities seen to further UN-level policy objectives. The geographic priorities reflected in the Programme's 13 short-listed countries potentially acted as a counter-balance in this respect.

An element mentioned several times was the recognition that the level, capacity, competences, and involvement of the individual Centres and other member organisations are very different. Currently, these differences are taken into account on an ad hoc basis, such as in the selection of certain Centres for project implementation. It was advised by several interviewees that these differences in capabilities should be an element used to structure the network, in addition to membership type, regional and thematic grouping.

The practice on the part of UNIDO and UNEP to issue a call for proposals for the implementation of the various activities within workstreams sets up a natural competition amongst the Centres. Some viewed this as healthy, setting the "winning" Centres on a virtuous cycle of building more and more competence through more and more activities to implement, while others pointed to the downside for those starting out with lower competence and less maturity. International contractors involved in implementing workstreams indicated that while UNIDO expressed a desire to reinforce the Centres as part of their mandate, the provided ToR and resources did not extend to working on the structure and governance of the Centres.

There appears to be differing understanding and expectations about the Secretariat's role. Several expressed the view that the Secretariat performs primarily administrative, coordinating, and control functions. Others expressed the expectation for the Secretariat to act in service of the members.

All agree that progress should be accelerated to take advantage of the remaining programme funding until 2017. Initiatives undertaken and progress achieved over the course of a few months around the Davos conference are seen as crucial for this. Ideas vary considerably with respect to the strategies and goals for this desired rapid improvement of the network and the roadmap for how to achieve these significant developments.

There was common agreement amongst the interviewees that the KMS has not been successful until now and needs to be significantly improved with respect to its structure, usability, and content. This was the opinion of both UNIDO staff and RECP*net* members. The system has now changed location to the UNIDO ITC platform and is now being upgraded and managed by dedicated UNIDO staff in Vienna. This

step is expected to improve the KMS' usability, use, and content quality in the near future.

An element that emerged from the country-level fact-finding is the low level of specific knowledge management activity and relatively low development of knowledge management systems within individual Centres. It is not known whether the three countries chosen as examples of the roll-out of the global RECP Programme are representative in this instance. In those Centres interviewed, a KMS was typically described as a central hard disk with a structure. Knowledge-management was described as sharing information with each other, helping each other, having monthly meetings with formal presentations, getting together for lunch. A preference of younger staff members to use digital communication tools for short messaging and decision-taking, which reduces traceability, was observed. Barriers were also mentioned with respect to the amount of time that it takes to develop, review, approve, and finally get material uploaded.

Many respondents pointed out that many more relevant sources for digital information and knowledge-gathering are rapidly accessible and available to RECPnet members, with high quality and quantity of content, quite apart from the RECPnet's KMS.

The network activities, including the KMS, consume a considerable part of the Programme's funding: 1.45 M Euro, or 27.8% of total expenditures until mid-2015. Only the expenditures of Workstream 5 are higher. The percentage is much higher than was originally budgeted and it is seen by some as a very high expenditure with limited results, with easily an extra 0.5 M expenditure until end of 2015 simply because of the 4th Regional Networking conference on RECP (12-16 October 2015 in Davos, Switzerland) Others are of the opinion that this budget, shared by all RECPnet members over the years, translates into around 8000 Euro per member per year, which is seen as a moderate expenditure, particularly in view of the significance of the face-to-face global and regional networking that this event facilitates.

WS 1 RECPnet: PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Programme Formulation

Workstream 1 was formulated based on the overarching recommendation of the 2008 evaluation that "the Programme should formulate a clear networking strategy...by supporting a membership-based network that would be open to qualifying institutions, including Centres established by the UNIDO-UNEP CP Programme as well as eligible other CP service providers". In this respect, main activities have been undertaken with respect to the development of regional chapters, a governance structure, and organization of (global) networking events. From reports and interview assessment, this is clearly aligned with the views and perceptions of the new and old RECPnet members. In the period between 2009 and 2012, the RECPnet Charter was drafted and approved, several new Centres were established, and two biennial global RECP networking meetings (Lucerne: 2009, Nairobi: 2011) were organized, giving this workstream a 'flying start' within the context of the SECO- funded programme.

Programming and Planning

During 2012-2015, a Vienna-based Secretariat for the RECPnet was established with the participation of both UNIDO (one staff is more or less fully dedicated) and UNEP

staff (one staff is partly dedicated; no funding is allocated specifically to the UNEP role within the RECPnet Secretariat). In its early years, the Secretariat has focused on growing, streamlining, and consolidating the network, which facilitated the development of regional chapters. The continuous growth of the network (end of 2013: 54 members, by mid-2015: 70 members) was facilitated, and regional (5 regions, regional meetings in 2013 and 2014) and global meetings (Montreux: 2013, Davos: 2015 *upcoming*) were programmed and implemented primarily through the efforts of the Secretariat, aligned with its mandate set out in the RECPnet Charter.

In 2014, a start was made with the development of a thematic focus, with priorities defined per region. Support for developing business plans for 14 selected Centres was provided through the GIZ-funded Human Capacity Development Intervention (HCDI) in the form of virtual expert sessions and distance tutoring (2013-2014) and an update of the UNIDO-UNEP Primer on *Good Organisation and Governance for an RECP service Provider* was planned.

Ownership and Relevance

The global RECPnet was built on the previous grassroots regional initiative in Latin America (from around 2002) with the aim of formalizing the helping and learning from each other. Through its 2009 Charter, the RECPnet was established by 41 founding members, which were officially recognized organisations or initiatives integrally involved in the advocacy and/or delivery of RECP concepts, methods, policies, practices, and/or technologies (“RECP Service Providers”). Thus ownership and relevance are inherent in the origins and foundation of this global networking initiative.

In terms of governance, a 5-member Executive Committee has been constituted by the membership through the biennial election of 5 regional chapter executives. This Executive Committee meets face-to-face on a biannual basis. These governmental aspects contribute to ownership by the members. Nevertheless, according to its Charter, the RECPnet is to be facilitated and supported by UNIDO and UNEP within the framework of the RECP Programme. This structural aspect provides a built-in drag on the development of real ownership on the part of member organisations.

Ongoing discussions about the level and payment of membership fees is an indicator for the varying degree of ownership as well as the perceived relevance of the network.

In principle, members have the chance to be involved in all aspects, activities, and consultation functions of the RECPnet. However, ownership is experienced and carried out to a varying degree by each member, and the overall assessment is that it could be strengthened and improved over the remaining programme period. The role of UNIDO as one of the initiators of this network has traditionally been strong, and of course, this cannot be seen separately from its role as a funding organisation on which many of the Centres depend to a varying extent. As indicated in the interview findings, the coming period is seen as essential for the transition to a much higher degree of ownership by a larger proportion of RECPnet members.

The relevance of RECPnet activities vary from member to member; some are rarely involved in communication and activities, while others are directly involved in networking consultation and communication, often connected to the implementation of project activities in one or more of the other workstreams.

Efficiency and Effectiveness

Expenditures for this workstream are considerably higher than originally budgeted, emphasizing on the one hand, the high importance given by SECO and UNIDO to development of the RECP*net*, on the other hand, indicating that the development of a dynamic network delivering on all of the expectations and requirements is not an easy task for the members nor for the Secretariat with its current staffing. Thus, from an external perspective, the efficiency of implementation is perceived as being rather moderate.

The growth and formalisation of the network are seen as highly effective, whereas the ownership, degree of interaction, and active participation of a majority of the members is considered to be moderately effective.

Impact and Sustainability

Given that the RECP*net* is the foremost network of its specific kind and widely regarded as a strategic asset, the current impact for its patron UN organisations, the Swiss Government, and its constituting members is quite high, from a conceptual point of view. From an operational point of view, given the varying levels of maturity, capabilities, and relevance, the current impact is judged to be less and at risk of decreasing further, given that the landscape is becoming increasingly crowded with many competing networks and organisations.

Long term sustainability of the RECP*net* depends entirely on substantially increasing ownership in the mid- to long-term. Given the current level of funding contributions from members versus the operational support needs linked to the Secretariat, when funding for the network eventually ceases, the income from contributions will not be enough to sustain the network.

Replication of the network model is currently being considered for the RECP Centres within China and within the national RECP programme in Indonesia.

WS 2 KMS: PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Programme Formulation

The KMS that was developed by the Arab region (2011) was opened up for global scale access, filling and use. The RECP*net*-wide KMS was conceived to be a living data inventory of technical, policy, and advocacy materials produced by and for RECP*net* members.

Programming and Planning

Although this workstream seems to be a rather straightforward activity, difficulties with programming and usability, the actual filling of the database was slow and planning was delayed several times. Although virtually no reporting on this WS was handed over for this evaluation, and consecutive yearly reporting only shows slow but gradual development without noting the difficulties, from interviews, it seems that the planning and implementation of the subcontracted activities (Stocker Group) were complicated and progress was slow.

Remedial action was taken in 2014 and the KMS has been transferred to UNIDO's ICT Platform, including management and operational capacity for expanding and maintaining the system.

Ownership and Relevance

As long as the culture of knowledge management is not developed within the individual RECPnet members and the KMS itself is not fully functional, the amount and level of resources and/or usability will remain low and ownership by RECPnet members will remain low. Potential relevance is certainly high; the need for specific information and possible elements of an expert system available for the Centres would be of high value for their service delivery. An evidence of low ownership by RECPnet members has been the low level of inputs and information for the KMS received from them.

Efficiency and Effectiveness

In its current form, until relatively recently, the KMS has not been effective and efficiency is low because of the relatively high level of budget that has been spent with seemingly low value-creation for the targeted beneficiaries.

Potential efficiency can be high, depending on improvement of quality and quantity in resources included, usability and actual use in everyday operation of RECPnet members. The KMS will be more and more additional to current open source information as well as dedicated KMS and online portals in adjacent areas such as climate innovation, sustainable energy and others.

Impact

Current impact of the KMS is non-existent to very low. Potential impact of a good KMS/portal is high, in light of the rapidly-expanding global digital access to information.

Innovation

Current innovation level of the KMS is low, but opportunities for innovative, interactive and mobile accessible digital information and communication portals is high. However, this would require very specific, high-level and up-to-date knowledge and expertise to put into place.

5.2. Output 1.3: Scaling-Up RECP (WS3 and WS4)

SURVEY

Around half of the 27 respondents of the survey answered they were involved in one of the two workstreams of this output, most of them in WS 3, Eco-Industrial Parks.

50% of their score on the Efficiency and Effectiveness of these workstreams was 'sufficient' (with the remaining answers divided between insufficient (16 %) and High (34%). Impact, so the actual scaling up reached, scored a little bit lower (20-60-20) and Sustainability scores was somewhat higher, with a division of 10-50-40 %. This indicates RECP organisations involved in these workstreams were relatively satisfied with the work done, with a little lower confidence on sustainability of the EIP and methods and tools results.

Looking at the verbatim remarks on the main reasons for their scores, some respondents stressed the importance of disseminating the tools applied in their situation to other RECP organisations. Respondents who scored insufficient for efficiency, impact and sustainability on EIP projects were of the opinion that more

international expertise was required or that the project did not generate real results or follow-up.

INTERVIEWS

The relevance of the Global Study on EIP was emphasised as the starting point for better planning and implementation in the upcoming programme period. Based on the study there is better insight in the definitions, concepts connected to EIP, methodology, and a good overview and comparison between developed and emerging context initiatives. The challenge seen now is to bring this into practice and start implementing in China and India first, followed by Vietnam, Tunisia, Indonesia and Perú.

There are some doubts on the principles of the EIP approach and its relevance for RECP - mostly the focus will be on waste management, reuse by others in the park and shared services - not being the core of RECP. On the other hand, one might say that if EIP drifts to waste reuse, then there is a need to insert RECP perspectives in EIP development and to shift the focus more on the Reduce and Reuse part of the 3R waste management concept. In any case, the move by existing industrial parks towards eco-industrial parks could be spurred through the use of RECP audits in all companies located within a park.

On the topic of Methods and tools contributing to scaling up the application of RECP, it is noted the tools could be diversified for RECP Centres with different levels of competence; Both tools for helping the best, as well as tools to connect to the 'midfield' of Centres, thus being supportive in bridging the difference.

Another notion is the need to integrate RECP tools into the whole 'business pyramid'. In many cases the framework conditions are not in favour for application of RECP, so there is a need for good diagnostic and analytical tools to make this clear from the start. It was also mentioned that the own adaptation and innovative use of the tools and methods in the specific context of each of the Centres can be fed back and documented for dissemination.

The TEST approach was mentioned several times as a valuable addition to the RECP toolkit, since it is already in line with the current RECP tools.

PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Workstream 3 – Eco-Industrial Parks

This section contains the assessment of WS3 on Eco-industrial parks (EIP), based on the narrative progress reports and workplan on this part of the programme reporting by the responsible UNIDO staff and national RECP organisations and the substantive reports generated by the national and international experts and the specific Centres involved. An overview of the reports taken into account is presented in **Annex 2**.

Programme Formulation

The priority of the topic EIP was established over time, based on the idea that it is one way of scaling up RECP given that an industrial park can contain tens to hundreds to target enterprises. In the 2008 evaluation of the CP programme, the EIP theme was still considered a highly uncertain service area for CP service providers, and received a low perceived interest from the stakeholders. Between the 2009 UNIDO/UNEP

Project Document on RECP and the UNIDO-only SECO programme formulation during 2011 the EIP topic has been given priority for RECP output 1.3 scaling up. Several factors contributed to this. Firstly, the SECO EST project in its final 1-2 years 2009-2010 in India achieved good results within the Ankleshwar cluster in India, putting spotlight on potential for estate-level upscaling, clearly related to EIP. Secondly, during 2010-2011, with Austrian government funding further prioritization at regional level was undertaken, driven by country/NCPC interests, and this put EIP higher on the list. Thirdly, in a further small project with ASEAN countries also funded by Austria, during 2010-2011, further work was done on advancing notions of scaling and mainstreaming, and this again pointed to industrial parks as levers for scaling up. Next to this there was also positive incentive from the Swiss donor and indeed international community, as the EIP subject gathered much international momentum, due to NISP programme in the UK and similar work in other countries. The theme was prioritised by RECPnet members during the Nairobi 2011 conference. In the 2012 Programme documents, the relevance and increase of Industrial parks, especially in Asia, and the opportunity to connect to individual company RECP processes to the park were stressed.

From the first approved workplan of 2012 continued on to one end of 2014, a two pronged approach was formulated for the development of activities on EIP to achieve scaling-up of RECP through interventions combining plant-level RECP with collective, EIP level opportunities.

The first module was to capture and disseminate good practices with regard to managing EIPs. A comparative assessment was started involving the 12 countries mentioned in Figure 2.

The second line was the identification, development and implementation of EIP Pilots in selected countries, with a priority of China and Vietnam, followed by India and/or Perú.

Programming and Planning

The planning of the deliverables of the two pronged approach have been programmed in consultation with the RECP implementing partners. For the Global Assessment report, a consultant was contracted and the draft report was delivered in 2014. Mid 2015, the draft report has not been published as the consultant's draft had been deemed unpublishable. Programme management stated that their resources were too stretched to recover, even though significant efforts were made to advocate main findings and suggest practical ways forward. Connected to this, production of the related Primer was not contracted. This seems to be quite some delay for a relatively straightforward process, yet on the other hand reflects on the wide range of opinions, interpretations and expectations. Already in 2013 a widespread demand from among the membership of RECPnet was noted urging the publication and primer on this topic forward.

This delay also means there is no input from this deliverable into the development of the EIP Pilots for now. For this second activity line, to set up EIP pilots under RECP in China, India and Perú, in 2013 – 2014 six case studies on existing IPs in China were evaluated and reported, and in 2014 a proposal for the first EIP pilot connected to the Zhenjiang Eco-Industrial Park development was proposed. However, the actual pilot projects are currently spun off from the global RECP Programme, as the available

funding is not adequate to support in depth EIP development, only catalytic support is foreseen as in the case of Zhenjiang (funding for one coordinating technical staff).

Also, outside of direct SECO funding, a GEF project on Eco-industrial Parks in Vietnam was secured, which is currently being executed by the Ministry of Investment and Planning with involvement of the CPC. This can be considered a direct spin off and synergy from the WS3 activities, in which a co-funding from 1 M USD of the RECP Programme is foreseen (2013). Further GEF funded EIP projects are in advanced stage of development, including in Perú, Thailand and lesser developed elsewhere (see section 7.4 of this report). EIP is also further developed under bilateral SECO projects, in particular in Tunisia and Indonesia.

Also on this activity, delay seems considerable and is linked to the 18-24 month timeframe needed to develop a GEF project and get approval. Relatively quick programming and implementation will be necessary in the remaining programme period, in light of the complexity of the pilots and the need for cooperation with other projects and programmes for the necessary overall funding.

Ownership and Relevance

From the Country Reports (chapter 6), it is clear that in China and Vietnam, the CNCPC and CPC, respectively, have strong ownership and consider workstream 3 on EIP to be highly relevant. Relevance is also considered high for Perú and Egypt, although activities are not yet as advanced. Wide interest from the RECP net members is reported. For SECO, the strong connection with the Sino-Swiss EIP in Zhenjiang provides the initiatives under this WS with a strong relevance. In light of the many definitions and initiatives, it is hard to keep the relevance connected to core RECP activities in the EIPs.

Considering the delays described above, it is too early to make any statement on the relevance of the outputs (1.3) on scaling up of RECP by means of integration of RECP with EIP – IP. Furthermore, there is no operationalisation available to measure this since there is presently no logical framework that describes the activities, indicators, means of verification and related assumptions for this. It is understood that this will be developed within each individual EIP project.

Efficiency and Effectiveness

The implementation efficiency and hence, the overall effectiveness towards scaling up of RECP, until now has been moderate with regard to planning and input of UNIDO and partner resources (although at least the Vietnam project started in October 2014). Taking these delays out of the equation, the inputs and services delivered by UNIDO and partners until now are of high quality, reporting is up to standards and pending on the formulation, planning and implementation for the pilot EIP activities in the remaining programme period, the activities could have outputs (synergy effects RECP and EIP) that can help achieve the output of scaling up of RECP activities.

Impact and Sustainability

Due to the current status of the activities in WS 3, no long term developmental changes have yet occurred because of the results of this workstream. Replication of activities (not yet outputs), essentially executing surveys and describing existing case studies of EIPs is taking place and enhancing the overall insights and information

available. The publication of the Global Assessment Report and related Primer is a potential replication/awareness mechanism simply waiting to happen, and should be implemented on the very short term.

Innovation

With regard to the cross-cutting impact dimension of *innovation*, the outputs of WS3 clearly have potential to innovate the methods and tools available for RECPnet members and their service portfolio. The Global Assessment report and Primer can be a good first step in this direction.

The activities that have been initiated in Vietnam since October 2014 offer innovation potential. The preliminary description of the intervention planned in China (Zhenjiang EIP) does not yet elaborate on the innovative methods to be applied, but rather, takes a managerial and process approach of connecting various EIP functions and processes to a RECP 'middle man' in the EIP, which will be funded by the RECP Programme.

WS 4 – METHODS AND TOOLS

Programme Formulation

Based on high expectations of Centres on accessibility and sharing on best practices, tools and methods, as reported in the 2008 evaluation, a prominent place for this was allocated in the 2009 project formulation - connected to both RECP output 1.3 on Scaling up (activity 1.3.3. on tools development, trialling and dissemination), as well as outputs and activities on innovation capacity. In the 2012 UNIDO SECO programme the focus for methods and tools was concentrated on the Scaling up output 1.3 only.

Typically, a method oriented WS is expected to have clear connections to the other workstreams, in which tools will be developed and applied as well, such as WS 3,5,. This connection in programming has not been found.

Programming and Planning

Original planning was for technical manuals for the hotel and leather sectors, including 25 plant assessments, a pilot in the textile sector, and a resource package for RECP clubs including 10 trials. This workstream was only started at the end of 2012, so with a considerable delay due to contracting issues and funding procedures. The original programming was replaced by a scoping study into GHG measurement tools by then, for unreported reasons.

In 2013 only minor activities were undertaken and scoping was started on the possibilities of a revised RECP toolkit based on the old 2004 CP toolkit.

In 2014 the pilot on GHG and material flow cost accounting was programmed for India, continued in 2015. Realignment of RECP tools and training materials was continued in combination with pilots in Indonesia and Eastern Europe. No deliverables have been reported until mid-2015, except the China CP Law assessment. In adjacent projects of EaP GREEN and Indonesia, training materials and RECP primers have been developed.

Overall, programming of the workstream design seems rather ad hoc, and planning and progress slow.

Ownership and Relevance

As long as practical applicable new tools and methods are not available, ownership of this WS activities will be limited to the partners directly involved in the scoping and testing only. Relevance of the RECP toolkit new version is considered high by the network members, and the potential relevance and impact on scaling up of RECP with the availability of convincing and good quality tools and methods can be considerable.

Efficiency and Effectiveness

Although the budget for this WS is relatively small, the ad hoc programming and planning has resulted in low efficiency and effectiveness until now.

Impact and Sustainability

Due to the long lead time and absence of current outputs, no assessment can be given on impact and long term sustainability of the possible outputs of this WS.

Innovation

Connected to the finding that the formulation and design of this WS is ad-hoc and not very consistent, a strategic vision seems to be absent that is necessary to make the outputs of this WS innovative enough to have a substantial contribution to scaling up of RECP within targeted industrial sectors.

5.3. Output 2.2: RECP for Waste and Emission Prevention (WS5)

SURVEY

Many of the RECP Centres have been involved in this core Workstream either via direct SECO funding in the programme, or via other funding. Since we expect the topic of this workstream to be the core competence of many of the RECP Centres, a high involvement was expected. Indeed most of the 20 respondents who answered said they were involved (80%). These, of course, included the countries involved in the actual implementation of SECO funded pilots, but some other respondents included their 'standard', non-SECO-funded RECP projects in here as examples.

All scores on efficiency, effectiveness, impact and sustainability were sufficient or high (together always around 90 %), showing that respondents were quite satisfied and confident with the activities in this workstream.

INTERVIEWS

The remarks during the interviews on this core workstream centred around the huge potential for results in this workstream, ranging from low-hanging fruit type of results to implementation of new technologies, zero waste systems and cradle-to-cradle approaches. A related opinion is that this WS is entering the phase where the transition to step reduction - deeper cuts in waste and emissions streams is now feasible and necessary. These views point to the significant opportunity (beyond the direct project financed activities) for much more significant results from waste minimisation results – both upscaling (many more companies) and deeper cuts. For both, capacity is missing. There are simply not enough Centres who could do so, and not enough capacity per Centre, and in the view of the Evaluation Team, insufficient expertise for the deep-cutting projects, which also need new technologies, investments, integration, etc. Few existing Centres would be able to do so. RECP

centres (e.g. South Africa, Perú) mentioned the need for additional capacities in this domain.

Also, the need for favourable framework conditions was mentioned several times. Industry has a choice whether getting involved in RECP or in other opportunities, a choice depending on a variety of factors, and often the framework conditions are not favourable for RECP.

The close connection with energy issues through the low carbon production and biomaterials/bio-waste link, requires an integrated approach with energy and climate innovation projects and programmes.

PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

This workstream is by far the biggest of the substantive workstreams in expenditure of programme budget with a budget of 1.94 M Euro (this is including the investment of approximately 300,000 Euro in the CTCN), which is over 50%, and double in size compared to the next one, WS6.

Programme Formulation

This relevance is of course also reflected in a consistent high priority in programme formulation, although focus has shifted over time. In the 2009 UNIDO/UNEP RECP strategy, thematic RECP applications were formulated divided in Resource Efficiency (output 2.1), Waste and Emission prevention (Output 2.2) and safe and responsible production (Output 2.3). In the 2012 SECO programme the focus was narrowed to waste and pollution prevention (output 2.2/WS5) and safe and responsible production (output 2.3/WS6), due to donor prioritization.

The final choice to define WS 5 as Industrial Waste Minimisation for Low Carbon Production is made in consultation with RECP members and target countries for the SECO programme. Elements of influence were the low carbon projects undertaken in 2009-2012 with Austrian funding, as well as prior SECO funding to UNIDO on bio-energy technologies. This is also a link to the choice for organic waste and processing residues intensive sectors that was made, linking the WS to biomaterials and bioenergy production, and reflecting a somewhat overlooked opportunity for GHG mitigation in agro and related industries.

In the Global Conference on RECP in Nairobi, 2011, low carbon production for resource efficiency was one of the sessions and RECP_{net} members advised to include the topic in the programme.

Programming and Planning

In the first workplan of 2012, a two-trajectories approach was described, sector based (agro processing, food and fibre sectors) leading to pilot projects in selected subsectors; and technology based, focused on bio-energy technologies using organic residues from industry. Guidance documents would also lead to pilot projects and implementation. In the rolling planning and programming in consecutive years, an additional component has been involvement in the operationalisation of the CTCN Climate Technology Network.

In phase I, in the subsector part, 28 company assessments were done in the rice and coffee sectors in Vietnam, Perú, Cambodia, and Colombia. The suggested pilot on

dairy in Guatemala is still on hold as it is being linked to the signing of Free Trade Agreement between Switzerland and Guatemala, which has not yet been executed.

As a spin-off from activities in WS3 (EIP), a CP project in Guangxi Province Cassava industry in China was started in 2014 with initial funding from the local government which was then further supported under the present WS.

Further activities were developed under the Green Industry platform including greening food and beverage value chains, fruit and vegetable industry, and in meat processing.

On the side of the development of technology based Guidance documents, some progress was made, but development into technical-financial projects or integration into sector pilot projects have been slow and difficult. Technology reports are still internal working documents.

The current mid 2015 status of the rolling planning indicates slow progress and quite some delay in outputs and deliverables.

In addition to the initially programmed activities, in the last year co-funding of a GEF project on Technology Transfer in Cambodia was included in this workstream, currently not properly reflected in the workstream reporting.

Ownership and Relevance

The relevance of the work in the chosen subsectors is evident, and the sectors are highly relevant for the selected countries and RECP centres involved in those countries. The relevance of the technology-based studies and guidance remains questionable until operationalised and connected to real industrial context. Desk studies on their own have limited value in this context.

Ownership of the RECP service providers is growing but still moderate. International consultants backed up by UNIDO remain the driving force of this WS. The local Centres are still mainly performing the in-company assessments and are involved in the actual implementation of the typical CP 'low hanging fruit' options.

Specifically in these bio based sectors like rice and coffee, a stronger lead from local partners is possible and necessary. As example of this growing ownership: A workshop on technology exchange was held in July 2015, in Switzerland where the pyrolysis technology was introduced to counterparts from Vietnam and Perú. The workshop also received support from the Renewable Energy and Energy Efficiency Promotion in International Cooperation (www.repic.ch) platform. All participants confirmed with enthusiasm, that Pyrolysis has not only a great potential in the coffee sector but also in the entire agricultural sector, when it comes to provide heat from biomass for different drying purposes and the usage of biochar for crop management. Appointments on follow-up were made with the countries in a leading position.

Efficiency and Effectiveness

The efficiency of the project execution seems moderate to goods, although some significant delays have been noted in the reporting and publishing, especially on the technology based trajectory. Since the technology guidance documents are drafted, the bottleneck seems to be in the operationalisation towards technology/finance projects, and integration into industrial pilots.

The efficiency/effectiveness to achieve the outputs in the industrial projects is moderate until now. Reporting of the 'traditional' CP options implementation is good, but this was not the real output envisioned for this specific workstream. The high "deep cutting" improvements leading to considerable waste minimisation (factor steps) connected to low carbon production due to bioenergy production are not yet reported.

Also, 28 pilot companies in 4 countries and 8 assessments in Cassava industry in China is not a very significant number to have an output contributing to the overarching goals of upscaling and mainstreaming.

Impact and Sustainability

Long term developmental changes are certainly feasible if successful technology-finance-industry combinations would be made in the area of the bio-waste intensive sectors selected. Strategic planning and strict selection process of the most potential solution directions within the current projects will be necessary. A first high potential combination is currently identified and brought forward for industrial application - implementation of pyrolysis technology in Vietnamese rice milling sector.

Innovation

The technology-focused activities could form the basis of several high potential technology innovation in bio-waste intensive industries. Until now, it is not clear how such break-through innovations will be among the outputs of this WS. The example of introduction of pyrolysis technology (Vietnam, Perú) could be promising but has to be followed up.

5.4. Output 2.3: Safe and Responsible Production (WS 6)

SURVEY

In only two of the survey responses involvement in this WS was stated. One graded the project as insufficient in effectiveness, impact and sustainability because the companies involved had expected an integral approach including water, energy and materials – so this seems more an issue of expectation management since the scoping of the WS pilots was quite clear from the onset. The other response scored "sufficient" stating the projects were well executed and good examples for other companies in the country.

INTERVIEWS

This workstream was touched upon seldom during the interviews, although (or perhaps because) it is considered a mature and successful activity in the programme. The boundaries and target groups are relatively clear, the Toolkit is established and used in the projects. When asked directly on the opinion on this WS, the opinion was that activities are well underway and the services for RECP providers are close to commercially feasible in some regions.

PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Programme Formulation

There is a clear development of this workstream from the 2008 CP evaluation on. In that evaluation, the successful experience with technical initiatives on Chemicals

management in the Latin America CP network were given as an example for becoming a model for global replication. It was also emphasized that, at that time, the topic fits well within the wish of many Centres to keep a dedicated focus on 'real' CP topics.

The topic was proposed in the UNIDO/UNEP 2009 RECP project document as one of the priorities on output 2.2 - the delivery of thematic projects on application of RECP for waste and emission prevention and reduction of impacts (UNIDO led), specifically under activity 2.2.2., projects on improving the management of chemicals. This was taken into the 2012 UNIDO SECO project formulation under output 2.3 as described earlier in this report. There seems to be some complementarity to the earlier UNEP work on responsible production here, focusing on the degree of innovation and added value created.

Programming and Planning

In the first workplan (2012) a three pronged approach was proposed to focus on manufacturing, formulation and industrial uses of chemicals respectively, and involve 10-12 subsectors for each during the whole programme, as well as start activities in 3-5 countries, selected on commitment and expertise of the member RECP organisation, and relevance and significance for the country. The selection process was based on analysis of the relevance of chemical industry (synthesis, formulation and application) in ten selected countries, on the basis of which priorities were set for involvement of subsectors in five countries. The activities were expanded into development of BAT reference documents and technical manuals, and resulted in 23 case studies in 5 countries during 2013 -2014. A spin-off methodological track resulting in the ICS toolkit in 2014 for IOMC to be published in 2015 and possible cooperation with GEF on the topic of Green Chemistry. Programming has been communicated with relevant RECP partners in workshops and expert meetings and feedback has been integrated into consecutive planning phases. More pilots seem to be planned but no detailed information is available as of now.

Ownership and Relevance

The WS topic is considered highly relevant by and for the target beneficiaries of RECP net, since it continues to have high relevance in many national and international programmes. The connection with ongoing activities within IOMC indicates good potential for synergy.

The ownership of the RECP service providers still seems relatively weak. Strong support from UNIDO and international consultants is needed to obtain the results required, the Centres mostly seem to limit themselves taking the role of implementers of local pilot projects. A strategy for improved local ownership is not (yet) in place. Improved capacity and competence development in the Centres will be an important part of this.

Efficiency and Effectiveness

The efficiency, the extent to which the resources and inputs of UNDO were adequate to reach the outputs are good. Some delays have occurred, but have remained within reasonable limits. The more or less additional development, not originally planned, of the ICS toolkit within the IOMC framework can be considered a good use of resources in light of the opportunities for multiplication and upscaling.

With regard to effectiveness, the piloting of a fairly well established technical area such as ‘innovative chemical solutions’ in 23 companies in 5 countries is considered a moderate results in light of the requirements of upscaling and mainstreaming. If the methodological achievements of toolkit, manuals and BAT reference guide can lead to upscaling in the remaining project period, this relative weakness can be overcome. A strategy to achieve this should be put in place.

Impact and Sustainability

Long term development changes can occur through the inclusion of RECP with IOMC and effectiveness and upscaling can be achieved. Mainstreaming of the approaches will need a stronger link with policy and network development than is currently visible in this workstream, which seems rather technology- and consultant-driven. Additional spin-off is achieved through a forthcoming GEF project on eliminating lead in paint, and to some extent, the EIP project in Perú, which includes sound chemicals management as a topic.

Innovation

Technological, process and materials innovations are clearly present in the current approach and pilot projects, and the overall competence to implement this in industrial setting is present as well, at the least with the international consultants involved. However, there is room for further improvement of the innovativeness of this workstream. For innovations to be actually implemented and sustained in innovative business models, more attention into green chemistry, green product design and online information/awareness raising – as was proposed during recent workshops – seems appropriate.

5.5. Output 3.2: RECP Financing (WS7 and WS8)

SURVEY

Six respondents were involved in activities in the workstreams related to financing – all in the Innovative Business Model part, WS 8. These rated the efficiency as sufficient and the effectiveness, impact and sustainability overall as sufficient to “high”. With these small numbers, statistical relevance is low, but the score does indicate quite some enthusiasm from those involved for the topics of financing and new business models. Explanatory notes confirm that innovative business models such as chemical leasing are received positively by industry.

INTERVIEWS

During the interviews, the innovation and financing WS 7 and 8 were touched upon relatively often, although they comprise of only 3.5 % of the total programme expenditure until now.

Attention to integrating financial considerations in all RECP approaches and tools is welcomed as highly appropriate and should be connected (e.g. to Green Economy, climate investment approaches). There is concern that the integration with activities in the other workstreams is low, although it is specifically appropriate for WS7.

The need for more attention to innovative business models was portrayed as an opportunity to “speak to the imagination of industry”. It should move beyond the deadlock on chemical leasing and lead to innovative service-based RECP Centre

business models. Breaking through the silos of RECP, eco-innovation, climate innovation, SCP and the like is another theme. The importance of non-resource related environmental issues, as well as social and cultural issues. The rising topic of circular economy and circular design approaches has many connections with RECP.

WS 7 PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Programme Formulation

This small workstream has relatively high priority in the 2009 strategy, with instruments development, framework development, and supportive activities. It is designed to assess and promote existing green financing instruments in the final 2012 SECO programme, which is in line with the 2008 evaluation. Further, several financing instruments for RECP were developed and implemented in this period, leading to relatively low priority for own development of this type of instruments within the RECP Programme. Focus was directed towards existing instruments to RECP investments. Financing is a typical cross-cutting issue with several of the other workstreams, but this potential linkage is not mentioned until 2013 reporting nor elaborated afterwards.

Programming and Planning

With a low priority for this WS, no activities were planned in 2012-2013 except background scoping. The scoping study was programmed and executed in 2014 but no further activities were undertaken since. Connection to pilots in WS 3, 5, and 6 were mentioned but not implemented due to the interdependence with results of other workstreams not yet accomplished, and overall programme funding issues.

Ownership and Relevance

Connected to the low level of activity, ownership is very low as can be expected. The relevance is potentially high but needs a quite different approach – like done in programmes (f.i. World Bank Climate Innovation Centres) where technology and financing are integrated from the beginning and both types of expertise are represented in the project teams. Relevance was considered low

Efficiency and Effectiveness

The efficiency is moderate (very low input/output) and effectiveness of this workstream is low since outputs were very limited until now and so no use can be made of these by the target beneficiaries.

Impact and Sustainability

At this point in time, impact and sustainability should be noted as very low. The key overall discussion would be if it is the right choice to give this topic such low priority – and if not, would there be cooperation possible with other programmes in house and external that have a higher expertise and experience in this area to achieve synergy.

WS8 PROGRAMME AND WORKSTREAM REPORTING ASSESSMENT

Programme Formulation:

Under the original output 3.2 of the 2009 project document, (innovative) business models are not specifically mentioned. In the 2012 workplan, reference is made to this 'finance' output since innovative business models are considered as ways to increase financial revenues for businesses. This considerably stretches the original meaning of

'finance instruments', the basis for output 3.2. The reasoning behind this is that innovative business models, like chemical leasing, have high potential to leverage financing from RECP from the private sector.

Programming and Planning

Business models were taken as a small but distinct workstream in the 2012 workplan. Chemical leasing and ESCO are the business models were mentioned in this respect. The Nairobi 2011 conference saw support from RECP^{net} members for this topic. An overall scoping study was planned and finally finished in 2014. Outcome was predictable: chemical leasing and ESCO are good candidates, in addition to industrial symbiosis which fits in WS3. The planning does not mention any follow-up activities from 2015 onwards.

Ownership and Relevance

Due to limited results, ownership is very low, except for chemical leasing. Relatively high interest is noted from RECP Centres, indicating potentially high ownership and relevance, but for now this kind of diversification seems to be placed outside core UNIDO-UNEP approaches and competences.

Efficiency and Effectiveness

Efficiency and effectiveness are considered low due to lack of real outcomes and activities except the scoping study. One exception to this is the contribution of UNIDO to the chemical leasing award in 2014 which has served as a platform for dissemination of existing chemical leasing cases

Impact and Sustainability

Impact of the workstreams very low due to lack of outcomes and deliverables for the target groups, and also long term sustainability is very low. Impact and sustainability probably could be considerably higher when UNIDO would be looking for synergy with for instance with UNEP and World Bank on the innovative business models in their eco-innovation and climate innovation programmes.

Substantive Workstreams 3 to 8 overall survey score for impact

As part of the assessment on the overall RECP Programme, the survey asked respondents to rate the overall impact of the substantive workstreams 3-8. In accordance with the findings related to the individual outputs, 18 respondents that are involved score for impact on the full set of substantive workstreams 'sufficient' (72 %) or 'high' (17 %), with 11 % scoring low or insufficient. The comments to this rating inform us that case studies and good examples are seen as important to trigger further interest and activities in the countries. In a few cases actual replication results are mentioned, where sectors replicated the RECP approaches in other companies, or business models (chemical leasing) were becoming standard in the chemical sector.

6. Evaluation Findings: Country-Level Fact-Finding

Country-level fact-finding was included as a dimension in this mid-term evaluation with the aim of assessing the extent to which the global funding has been programmed and implemented in a way that addresses national needs and priorities, as opposed to serving as standalone projects in the involved countries. In this respect, three countries (China, Egypt, Perú) were selected out of 13 candidate countries seen as eligible for pilot activities with global RECP funding of SECO (refer to **Table 1**).

The selection of countries was based on ensuring broad coverage across the 8 workstreams and geographical spread, by including an example from each of Asia⁹, Arab/Africa, and Latin America. By including the three selected countries in the global evaluation effort, it was hoped that lessons learned would have multiple dimensions, with respect to: new technical insights (how and what of RECP), operation and services of the respective NCPC, and for the overall RECP Programme and network.

The detailed country reviews prepared by the National Evaluation Experts are contained in **Annex 7** (China), **Annex 8** (Egypt), and **Annex 9** (Perú). Each country review includes a brief institutional analysis of the National Cleaner Production Centre as an example of the roll-out of the global RECP Programme. This institutional analysis was carried out using the framework contained within the *Good Organization, Management and Governance Practices: A Primer for RECP Service Providers*.

Findings from the country reviews of the implementation of the relevant workstreams have been integrated into the previous section. Key findings are summarized below in relation to issues seen to be of interest from the overall programmatic perspective.

6.1.China

The Chinese National Cleaner Production Centre (CNCPC) was established in 1994 within the Chinese Research Academy for Environmental Sciences (CRAES) through the support of the UNIDO-UNEP Cleaner Production Programme. As one of the 13 priority countries for implementation of in-country pilot activities under the present Programme, the CNCPC contributed in three workstreams (see **Table 4**).

Table 4. Workstream Contributions to the RECP Programme from China

Contribution to Workstream	Activity	Current Status
WS3 Eco-Industrial Parks	1) Appraisal of the potential for replication of Resource Efficient and Cleaner Production in selected regions and sectors in China, January-April, 2013	Finished
	2) Documentation and review of national experiences with development, implementation and management of eco-industrial parks in China, July-October, 2013	Finished
WS4 RECP Methods & Tools	3) Review and Assessment of the 2003 China Cleaner Production Promotion Law (CCPPL), September 2014-June 2015	Ongoing
WS5 Industrial Waste	4) Industrial Waste Minimization for Low Carbon	Ongoing

⁹ In the case of Asia, Vietnam was excluded as a candidate for the country-level fact-finding as the RECP and related programme activities have been subject to at least three evaluations in the previous years (including one impact evaluation of the Vietnamese Cleaner Production Centre, project evaluation on CSR project and programme evaluation on the joint programme on green production and trade)

Findings of Interest

With respect to WS 1: RECPnet

- The findings of interest related to the progress in establishing a national Cleaner Production forum or network and the relevance of inputs leveraged from the RECP*net* initiative. Responding to significant interest expressed by a variety of actors for a nation-wide RECP network, a technical union (CP forum) was established in China in 2013 but has not advanced significantly since
- CNCPC is seen as the natural leader/orchestrator for this network; however, the CNCPC does not see itself as having the network-building competences
- CNCPC's learning from RECP*net*: members can not be asked to pay for being part a network before they see the value of the network; working on the network is not currently a top priority for the CNCPC; it falls after other roles (policy, service provision, secondment support to counterpart Ministries)

With respect to WS 3: Eco-Industrial Parks

- In 2013, the CNCPC contributed 3 eco-industrial park case studies to a global study of eco-parks that was carried out under the RECP Programme
- The CNCPC carried out a scoping study which strengthened cooperation with three provinces and resulted in the identification of a pilot eco-park to be developed in Zhenjiang (ZETDZ)
- In July 2014, an agreement was signed to establish the Sino-Swiss Eco-Industrial Park with support from the governments of Switzerland and China
- UNIDO prepared a proposal (June 2014) for a RECP pilot project to foster eco-industrial development in ZETDZ; until now, progress on moving forward on this proposal has been delayed for a variety of reasons

With respect to WS 4: RECP Methods and Tools

- A superb example of RECP Programme intervention that was the right UNIDO project coming at the right time
- This very positively positioned CNCPC in eyes of governmental stakeholders as well as other CP Centres: contributed to building view of the CNCPC as a source of national competence & effective guidance
- Facilitated working relationships with Hebei & Shanghai CP Centres; they carried out in-depth assessment of implementation in 29 enterprises to contribute to the study

With respect to WS 5: Industrial Waste Minimization

- After evaluating 8 candidate enterprises, 1 Guangxi plant was chosen to demonstrate new cassava starch process (supported by SOFIES); involvement of UNIDO heightened Chinese government's interest in this activity, thus raising the CNCPC's profile
- This project is seen as an "innovative business model": CNCPC brought idea, Anning Starch took it up, activities were funded by corporate funds, loans, grants; close cooperation of research institute & companies

- This project generated interest and awareness amongst local enterprises (media reports in 2014); an action plan was to be generated in a provincial conference (end July 2015)
- Seen as providing a reference for upgrading other traditional industries
- Question about its strategic value: seemed to be a political choice requested by SECO, decision to start was pending for a year; could this sector disappear entirely due to inability to compete with southeast Asian neighbours?

6.2.Egypt

The Egypt National Cleaner Production Centre (ENCPC) was established in 2005 as a service provider for Egyptian Industry by the Ministry of Industry and Trade (MoIT), in close cooperation with UNIDO as a part UNIDO/UNEP global network of Centres/NCPPs and as part of the Egyptian Industrial Council for Technology and Innovation, with support from the governments of Switzerland, Austria, and Egypt.

The ENCPC was established as a Centre of Excellence and operates under the guidance of a Steering Committee which has established its strategy and portfolio of services.

The Centre is regarded as a public organization with an international dimension. It is allowed to cooperate with international partners and the private sector, but officially and legally, it is located within the MoTI and follows all governmental procedures, routines, and contractual steps.

The ENCPC contributed to 5 workstreams under the present Programme (see **Table 5**).

Table 5. Workstream Contributions to the RECP Programme from Egypt

Contribution to Workstream	Activity	Current Status
WS1 RECPnet	1) Follow up on the GIZ-funded Human Capacity Development Intervention and improvements achieved in management, organization and governance of ENCPC	Ongoing
WS3 Eco-Industrial Parks	2) Generation of two case studies documented for promoting EIP in Egypt, including lessons learned	Finished
WS Industrial Waste Minimization	3) Industrial Waste Exchange	Ongoing
WS6 Innovative Chemical Solutions	4) Innovations achieved through new methodology, their relevance and value for promoting sound chemicals management in Egypt, lessons learned	Ongoing
WS8 Innovative Business Models	5) Relevance and value of continued work on promotion of chemical leasing in Egypt	Ongoing

Findings of Interest

With respect to WS 1: RECPnet

- Having participated in the GIZ-funded Human Capacity Development Intervention (HCDI) during 2014, improvements in management and organization of the ENCPC are evident

- The HCIDI was used strategically to strengthen the competences of middle management; in parallel, as a Switch-Med TEST partner, the Centres competences are continuing to build as this brings opportunities for in-depth discussion with industry and the possibility to offer technical advice and eventually facilitate technology transfer
- Established as a Centre of Excellence in the Egyptian Ministry of Industry, the ENCPC has a privileged position: has good access to and can influence policy but faces a high level of bureaucratic procedures and protocols on a daily basis
- The ENCPC team is able to design its own working plans, set implementation timeframes, create indicators to monitor progress / success. An organigram is in place, job descriptions exist. The recent agreement with the government giving the ENCPC management the opportunity to establish financial incentives for motivating and retaining its staff is viewed as a major achievement
- The ENCPC benefits from a capable, active, well-networked, committed Director with young “passionate” staff focusing on their technical competencies; however, they appear over-stretched, which is not sustainable
- ENCPC is a highly solicited as a partner; from a pragmatic perspective, seems to be using UNIDO activities to increase staffing

With respect to WS 3: Eco-Industrial Parks

- The request to contribute 2 eco-industrial park case studies to the global study being carried out in 2013 was described as “the right project coming at the right time”; the EIP topic fit with the country’s overall strategy and national plan, as well as with the regulations and future expansion plans of various ministries.
- In undertaking these case studies, 180 existing industrial zones were identified
- The involvement of the ENCPC in this topic generated huge value for the institution as it was seen as one of the few working on this topic, thereby putting the Centre in the focus of 8 coordinating Ministries on the EIP topic
- There was disappointment that the contribution of 2 case studies to the overall EIP study did not lead to further activity or pilots in Egypt
- Other donors (e.g. African Development Bank, IFC, Korean government, Japanese?) are now working with the ENCPC on this topic
- Lesson learned: definitions/scope are a continuing challenge, challenges of encouraging collaboration between companies & stakeholders, how to leverage “champions” vis-à-vis community relationship-building

With respect to WS 6: Innovative Chemical Solutions

- UNIDO negotiated project activities with the Egyptian government; the ENCPC team indicated they were not part of project design; these activities appear to need significant management time, team members from other activities are being pulled in to handle the workload
- Inefficiencies/delays had a negative impact on momentum; requests to UNIDO for technical expertise were not met
- Motivating companies to implement by enticing them with the promise of offering international sector expertise does not appear to be sustainable
- Activities were implemented in 5 companies starting in 2013; an additional 8 companies are to be engaged from September 2015; nevertheless, the prospects for upscaling seem quite low from this small base

- Lessons learned: need to improve the templates (one is 35 pages itself!)

With respect to WS 8: Innovative Business Models

- The ENCPC has promoted the Chemical Leasing concept without UNIDO's financial and technical support, by engaging with General Motors
- This concept is experienced as relatively challenging to promote; it is seen as more pressing first work on the enabling environment; ENCPC sees its own priority is to secure own financial sustainability through service provision; chemical leasing promotion is not an easy route
- The ENCPC contributed to the development of the first chemical leasing toolkit; subsequently disseminated to Mexico, Russia, Sri Lanka, Brazil, Uganda
- This experience seems to have sparked ENCPC's interest to deepen activities in "innovative business models"; the ENCPC expressed need to strengthen own competences in change management, innovation, org development

6.3.Perú

Operating since 2007, CER, which is hosted by Grupo GEA, is the implementing partner of the RECP Programme in Perú. CER develops programs and projects and offers consultancy and training services in Resource Efficient and Cleaner Production (RECP), Eco-parks, responsible production and eco-innovation, Corporate Social Responsibility, climate change, carbon footprint, and life cycle assessment.

CER contributed to 5 workstreams under the present Programme (see **Table 6**).

Table 6. Workstream Contributions to the RECP Programme from Perú

Contribution to Workstream	Activity	Current Status
WS3 Eco-Industrial Parks	Generation of 3 case studies documented for promoting EIP in Perú, including lessons learned	Finished
WS Industrial Waste Minimization	Implementation of pilot activities to generate bio-energy in Rice and Coffee sectors	Ongoing
WS6 Innovative Chemical Solutions	Implementation of pilot activities	Ongoing

Findings of Interest

With respect to WS 1: RECPnet

- Having participated in the GIZ-funded Human Capacity Development Intervention (HCDI) during 2014, improvements in CER's management and staff have been observed, and particularly with respect to capabilities in the area of communication and marketing
- CER has the legal status as an NGO, with access to Group resources; it is a key actor for government and other actors
- The CER benefits from having an able committed active highly-networked Director with a young (primarily female) team; project managers given high responsibility, training opportunities. All in a legal situation. Job descriptions.
- Annual workplan is an aggregation of different projects. All project managers involved in developing proposals.

- CER is keen to strengthen its activities in “innovative business models”; the CER would like to be in a position and have the internal capabilities to provide advice on (core) business area not only on engineering and technology aspects

With respect to WS 3: Eco-Industrial Parks

- In 2013, CER developed 3 EIP cases, these were presented in a workshop on eco-innovation & eco-parks; these EIP cases were linked to the RECP Programme and Green Credit Line (supported by SECO)
- Subsequently CSD engineers visited to prepare a proposal to present to GEF for funding
- CER provided support to UNIDO for the formulation of this project for GEF: CER provided lessons learned for involvement of public & private actors (securing endorsement of MINAM, PRODUCE), getting co-financing support from enterprises & international cooperation (SECO)

With respect to WS 5: Industrial Waste Minimization

- The pilot activities conceived for implementation in Perú were a top-down decision by UNIDO, with the decision to focus on generating bio-energy in Rice (through combustion using rice husk) and Coffee (through pyrolysis); Technical Guide provided by SOFIES was appreciated
- Too short timeframe (18 months) for implementation not realistic to do preliminary assessment, build the idea, do feasibility, identify and get the players involved. And get the project working in two sectors: rice and coffee
- Delays in contracting had a significant negative impact on the momentum; international consultants could not advance their work with the NCPC; on-the-ground challenges for CER to manage contractors & the target beneficiaries (esp. coffee farmers; energy dispersed, turning attention elsewhere, contractors in other jobs)
- This project facilitated contact of Peruvian industry with more advanced Colombian coffee producers and Bolivians using coffee pulp to create tea (new product) – Peruvians are now interested to take this up!

With respect to WS 6: Innovative Chemical Solutions

- According to the findings in the field, the UNIDO in Vienna defined the direction for pilot activities in this workstream, and CER immediately began working on this, and then the Vienna team subsequently changed the criteria for sub-sector selection; this situation created serious implementation challenges for CER
- Activities related to this workstream encouraged companies to move into implementation by providing financial/technical support, leveraging SECO's Green Credit Line, promoting technology transfer (in line with Swiss interest)
- Through participation in this workstream, CER indicates that it is now perceived as a multidisciplinary team of engineers, specialists in chemistry, and specialists in green industry; such a reputation and competence level would stand it in good stead for upscaling RECP services to industry beneficiaries
- CER has recently supported UNIDO in developing a proposal for GEF "Lead in Paint for Andean" for Perú and Colombia, by securing co-financing from MINSA and MINAM (Ministries of Industry and Environment)

7. Conclusions and Recommendations

Based on the assessment of the overall Programme, the assessment of the outputs and workstreams, and the country-level fact-finding (complemented by Annexes 7-9 provided by the national evaluation consultants), a set of overarching conclusions has been formulated.

On the basis of these conclusions, recommendations have been developed for the remaining implementation period of the Programme. These recommendations are presented further below, per target group. A detailed table of conclusions and recommendations outlined for UNIDO-UNEP, SECO, and RECP*net* is contained within **Annex 11**.

7.1. Key Conclusions

1. Programme Design and Formulation

The initial design, traced back to 2009, was for a multilateral programme. When operationalised, this effectively narrowed to a bilateral program and funding constraints from the outset led to a fragmented design of the workstreams. The funding that has been obtained covers 20-30% of the original design. As a result, programming and design have often been ad hoc and seems to be an ongoing compromise between SECO requirements on the one hand and overall integrated programme requirements on the other hand. Choices made on this are not transparent. The Programme was designed like a mosaic where additional donors and projects could fit within a bigger framework; however, the time and effort to secure the needed funds and projects was underestimated.

Connected to this, UNIDO-UNEP's dual role as a Network Developer (*vis-à-vis* the RECP*net*) and Implementer (giving funding through contracts where the final objective is to get results back to achieve programme objectives) has increased the complexity of the design. The programming seems to be more oriented towards perfecting RECP scoping and tools and detailed technical implementation, not towards getting upscaling and mainstreaming out of the current funding.

2. Programming and Planning

There have been delays in many activities of the Programme, due to external reasons and due to the complexities of contracting and payment related procedures within UNIDO (SAP implementation was a major reason). The delays partly reflect adaptive management but one of the outcomes was programme drift, which should be avoided. The remaining period consequently seems short for most of the workstreams to achieve the outputs and to have the impact and sustainability to contribute to the objectives in a satisfactory way.

3. Ownership

The ownership of the RECP*net* is not experienced by members as high as it was expected to be in the beginning of the programme. After continued effort to shift ownership, the Centres still see UNIDO and UNEP as the ones leading the way. There is a persistent attitude that the RECP Programme is a source of funding for the Centres (as opposed to fully understanding its programmatic objectives), although there has usually been a considerable level of in-kind contribution from the Centres.

4. Relevance

Overall, relevance of the Programme is considered sufficient-to-high, but activities are often mostly utilized as a funding mechanism for individual Centres. In situations where activities are seen by the Centres as being the right thing at the right time, then these are considered highly relevant (e.g. EIP study in China). But if requested activities are perceived more so as UNIDO/UNEP just in an implementing role trying to get work done, then there is a potential perception of activities being a burden (e.g. Rice, Coffee Waste Minimisation projects) if these are not specifically relevant in a local circumstance. Also, due to delayed outcomes, interest seems to be waning.

5. Efficiency

The Programme's efficiency is seen as moderate, with the notable positive exception of Workstream 6 which is considered to be delivering the projected outcomes quite efficiently. A good technical quality of intermediate outcomes has been established linked with the high quality of consultants and experts that have been contracted. However, their reporting skills are sometimes rather moderate. The focus on detailed technical quality seems to hamper overall efficiency with respect to leading to the desired outputs.

6. Effectiveness

Effectiveness is evaluated as low-to-moderate for virtually the whole Programme. This is based on a qualitative assessment, since outputs are not detailed and quantified in the initial design, and since the logframe that underpins the Programme has not set objectives for this nor develops criteria. Thus, it will be very hard at the end of the Programme to measure effectiveness. The growth and development of the RECP network within a relatively short period of time, however, is considered to be quite effective.

7. Impact and Sustainability

Impact is considered moderate to low until now. Typical outputs toward the final beneficiaries are limited to around 30 companies per workstream because of detailed hands-on involvement instead of leveraging and combining with other and ongoing initiatives. Potential for future impact is considered high for several of the workstreams.

Sustainability seems to be increasing, since results are often obtained networked or in collaboration with other partners. As an example of this, recent catalysing of additional activities (especially under GEF) is considerable.

8. RECPnet

The RECPnet is not a coherent single entity consisting of similar and equal actors but it is still treated mostly as if it has already reached this level of maturity. Varying types of entities, competences, and maturity levels, as well as interest and commitment exist within RECPnet which have not yet been dealt with adequately.

9. Upscaling

Until now, a limited number of companies have been serviced for a relatively large budget in scoping and consultancy effort. Effort per company is high, and for now and the foreseeable future, a significant reduction of effort per company is not clearly established within the Programme, thus upscaling potential is relatively low. In

Workstream 6, the existence of a comprehensive toolkit and the connection to international networks show better opportunities for upscaling.

10. Mainstreaming

The current status on mainstreaming is low. There is little attention to framework conditions in the RECP Programme; if the patron organisations want to incentivize this aspect, there is a need to first build a RECP culture to better embed drivers and incentives in industry. However, this type of mainstreaming requires a relatively diverse skill set. The Workstreams that should have been contributing mostly to mainstreaming, WS 7 (Finance) and WS 8 (Innovative Business Models) are the least developed.

11. Innovation

Innovative tools, approaches, and methods can be found in several of the workstreams (not only in WS8), but these remain largely unused and are applied to a limited extent in the industrial practice targeted by the Programme. Due to the funding background of the Programme, UNIDO and UNEP activities on innovative approaches have been separated and are now more or less running in parallel.

12. Gender

Gender equality or empowerment is not mentioned in the Programme's formulation nor in the reports reviewed under this evaluation effort; the RECP Programme was designed in an era when this topic was not yet prioritized and/or related policies were not yet implemented.

13. RECP Programme Management

There is widespread appreciation of the engagement and dedication of the UNIDO-UNEP Programme Management team. However, there was too low capacity (until recently, significant reliance on 1-2 individuals with insufficient delegation) for such a complex demanding programme, which led to overloaded staff and a focus on certain more technical tasks while neglecting others (managing scope, timelines, etc.).

Adaptive management was heavily utilized, including a high level of responsiveness to donor priorities, which led to "mission drift". For instance, programme resources were drained to other, albeit related, project activities (e.g. Green Industry Platform, cradle-to-cradle, seeking GEF co-financing and opening to new countries).

14. UNIDO Administration

Complex procedures for contracting and financing have been reported, leading to problems with implementation, creating gaps, loss of momentum, and loss of qualified/experienced staff. Deadlines and timely payments have not been respected, which led to a lack of predictability and inability to plan resource deployment for RECPnet partners as well as for international and national contractors.

15. Reporting and Dissemination

The Programme embarked without an apparent strategy from the start for effective internal and external dissemination. The present approach to reporting and dissemination depends largely on the provision of consultant reports and technical reports, which are insufficient for a networked dialogue and for making strategic choices for the next phase.

7.2.Key Recommendations

7.2.1. Recommendations for UNIDO and UNEP

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

This includes:

- a. Developing a better balance between UNIDO’s technical RECP concept with development needs on policy and institutional sides, better leveraging the economic and innovation approaches of UNEP as a joint implementing partner and others: ILO on working conditions, UNDP & FAO on activities in the agro- and bio-based sectors, etc.
- b. Strengthen the Programme’s emphasis on developing framework conditions and embedding drivers/incentives and/or connect with other relevant institutions
- c. Refocusing programming/ developing a dedicated logframe of the remaining more clearly on impact, providing the basis for future upscaling and mainstreaming
- d. Assessing areas in which gender has strategic relevance for the RECP topic and incorporating these aspects within future activities (with sufficient resources for capacity-building on this topic)
- e. Merging the programming of WS 4, 7, 8: these are all methods and tools; link them to be used in service of the larger technical WS 3, 5, 6: connect Chemical Leasing to WS6, Industrial Symbiosis to WS3, ESCO could be a service for WS5 (bio-waste: rice, coffee)
- f. Engaging in more active cooperation with UNEP to include Service Delivery, Resource Efficiency and the policy and innovation activities within a joint framework

Additional recommendations:

- g. On the implementation side: reformulate the RECP Programme so that UNIDO and UNEP can use any Centre in any part of the world to do any assignment to reach the needed objectives
 - h. Strengthen the Centres according to the initial founding vision by injecting more resources and more aspects into ToRs to seriously work on the structure and governance aspects of the Centre; use interventions like the HCDI but not so fast-paced for implementation; leverage virtual platforms and e-learning while also maintaining a face-to-face element to build relationships, trust, and incorporate effective (business) coaching
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

In conjunction, it is recommended to:

- a. Decide on the level of impact that can be achieved within the current or an extended timeframe for implementation, with high efficiency and effectiveness and to then proceed to implement the strategy to deliver on the expected results

- b. Incorporate a realistic planning for this extended period of what can be achieved based on current resources; the outputs and deliverables to reach each desired objectives should be described (and where possible, quantified)
- c. Improve reporting and dissemination of programme results (by strengthening in-house strategic coherent reporting, moving to a 3-month schedule on status, results achieved, problems and challenges, opportunities to solve issues)
- d. Produce (as the patron organisations) or outsource a compilation of reporting in the near term and bring this to a higher level (into toolkits, papers, etc.) to be disseminated to a large audience. The efforts that have already been done in preparation for the Davos conference (October 2015) provide a good starting point for this.

Additional recommendations:

- e. Formulate outcome/impacts in SMART terms; similarly align rolling biannual SECO reporting
 - f. Elaborate an upscaling strategy for the three large technical workstreams (WS 3, 5, 6) to involve a realistic number of companies in implementation to increase impact
 - g. Improve the effect of scoping studies in all workstreams by quickly publishing, publish WS 7 and WS 8 scoping studies in connection to relevant UNEP activities where possible; follow-up on use and get feedback.
 - h. For WS3: give priority to finalise/publish the study and prime as a supportive tool for upscaling and mainstreaming
 - i. For WS3: Reformulate strategy for pilot into cooperation with GEF and bilateral EIP projects. Decide on a USP of UNIDO in these projects and follow through
 - j. For WS5: decide on a priority of technology/sector activities and maintain this focus; based on the technology/sector matching, push for fast implementation and determine to what extent upscaling can be achieved, in a combined approach with GEF, World Bank, and other programmes
 - k. For WS6: determine to what extent upscaling activities in the remaining timeframe can be implemented; keep the balance between increasing upscaling and securing quality of implementation
 - l. Reconnect to UNEP and related programmes to enhance the service delivery capacity of RECP Centres, thus increasing the opportunities for upscaling
3. To increase relevance for and ownership by RECP_{net} members, adopt a more participative orientation.

This can be implemented through:

- a. Giving more attention to local constraints and opportunities when it comes to selecting sectors and defining criteria (thus being more aware of which Centres need what capacity-building activities at which period in time)
- b. Exploring options for a model of more open calls for proposal; with simpler procedures
- c. Earmarking funds (from Workstream 1?) for the RECP_{net} Executive Committee (ExCom) to decide on that budget
- d. Making ExCom membership a paid position, to increase priority on this work and enable the justification of time allocation to national stakeholders.

Additional recommendations:

- e. Consider transferring the RECPnet Secretariat to the ExCom, paid by funding from the RECP Programme, independent from UNIDO-UNEP
 - f. Develop a phasing-out strategy for UNIDO/UNEP's direct involvement in RECPnet
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).

This could include:

- a. Developing the KMS to a certain well-defined level during the remaining programme level and handing it over to another suitable information/knowledge portal. Define the handover strategy in the coming period
- b. Evaluating cooperation with the Green Growth Knowledge Platform
- c. Based on "unique selling points" of UNIDO with respect to EIP, develop a strategy for continued involvement in related EIP programmes and projects

Additional recommendations with respect to sustainability:

- d. View the Centres' challenge to retain talent as a success indicator of the Programme, spinning off sought-after RECP-qualified professionals as change agents in government, industry or as independent consultants
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.

In doing so:

- a. Take more notice of the diversity of the members in building and sustaining the network
 - b. Work towards another division of members based on excellence and quality of outputs, and thematic interest, in addition to regional divisions and membership types
 - c. Work with the ExCom as an equal partner to develop and support network development
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).

In detail for the workstreams:

WS 4: Refresh/publish adapted RECP toolbox; check with TEST methodology for integration.

WS 5: Decide on innovative potential of selected technologies to be implemented.

WS 6: Develop a strategy for implementation of the innovative technologies (such as Green chemistry, green design of chemicals) in the remaining programme period

WS7: Connect to in-house and external expertise for innovative business financing

WS8: Connect Innovative Business Models to implementation in WS 3, 5, 6

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.

Additional recommendations:

- a. Enhance responsiveness; set a 48 hour response to requests from RECPnet as a standard
 - b. Consider dedicating 1 person for outreach, dissemination, etc. This person should be a good networker; the overall Programme manager should only go to the events where decisions are made, otherwise delegate
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.

Specific recommendations for UNIDO-UNEP RECP Programme Management:

- a. Do realistic planning, either seriously reflecting chronic sources of delay or eliminating these
- b. Increase lead-time for initiating activities to avoid pressure to get needed resources in place at the last minute
- c. Avoid over-promising to reduce risk of creating disappointed stakeholders

For UNIDO Procurement and Human Resource Departments:

- d. Review and simplify contracting procedures
- e. Review system/criteria used to determine compensation to become more aligned with other international actors

7.2.2. Recommendations for SECO

The following key recommendations are provided for SECO:

With regard to programme formulation

- 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.

In order to support the desired shift of ownership of the RECP Network:

- 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)

Related to the topic of securing continued relevance of the RECP Programme:

- beware of putting UNIDO/UNEP in position of doing significant adaptive management to respond to emerging thematic and geographic priorities linked to political objectives.

And related to this, for improved management of the programme by the patron organisations:

- 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.

Finally, with respect to supporting the Programme in its administration:

- review oversight and governance mechanisms to ensure early feedback (or agreement) on mission drift and scope deviations.

7.2.3. Recommendations for RECPnet

For the RECPnet members and specifically its Executive Committee to be actively involved in improving the Programme, the following set of strategic and operational recommendations are proposed to be taken up jointly with the UNIDO-UNEP programme management team:

Aspect	Recommendations
Programme Design and Formulation	<p><i>Key recommendations:</i></p> <ul style="list-style-type: none"> - 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. - 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 - Become much more proactive and independent; formulate and design own programme and search for donor funding
Programming and Planning	<p><i>Key recommendations:</i></p> <ul style="list-style-type: none"> - RECPnet global, regional chapters and/or thematic groups: provide UNIDO-UNEP with an independent programming of priorities and preferred activities - In the integral area of RCEP policy and innovation, formulate dedicated plans, transforming the spirit of the decision-making process into a joint effort.
Ownership	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - 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). <p><i>Additional recommendations:</i></p> <ul style="list-style-type: none"> - Undertake elections to paid ExCom positions (opened beyond Directors) - Facilitate the ExCom to take on network development and networking functions
Relevance	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - 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)

	<p><i>Additional recommendation:</i></p> <ul style="list-style-type: none"> - Increase understanding of the function of programmatic activities of RECP; distinguish this from the drive of individual Centres to get funding
Efficiency and Effectiveness	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - 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 - Form strategic alliances with a selection of the bio energy/climate innovation initiatives for improved effectiveness <p><i>Additional recommendations:</i></p> <ul style="list-style-type: none"> - Individual Centres: say “no” when a Call for Proposal or request for engagement does not make sense according to your strategy and plan for development, opening the door for an interactive dialogue with UNIDO/UNEP to identify what would make sense - Measure and evaluate (quantitative, qualitative) own contribution to RECP Programme activities
Impact and Sustainability	<p>Define what services based on the current portfolio of RECP_{net} projects have the highest potential for replication and/or synergy with other activities on the regional/individual level of the Centres.</p>
RECP Network	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - Make the network come alive: notice and seize opportunities for collaboration and joint activity <p><i>Additional recommendation:</i></p> <ul style="list-style-type: none"> - Develop simple guiding principles to enable decision-making that can lead to deepening engagement and ownership
Upscaling	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - Develop dedicated tools for different levels of competence to achieve upscaling both by 'top' Centres and 'mid-field' Centres. <p><i>Additional recommendations:</i></p> <ul style="list-style-type: none"> - Reconnect to UNEP and related programmes to enhance the service delivery capacity of RECP Centres, thus increasing the opportunities for upscaling. - Effectively connect RECP project funding to other funding sources and consortium-building to increase local upscaling potential
Mainstreaming	<ul style="list-style-type: none"> - Develop thoughts and strategy regarding own policy role, focus on opportunities to influence framework conditions - Insist on the inclusion of capacity-building for these aspects within existing and future programmatic activities
Innovation	<p>Develop a linked offering for technical and business innovation based on complementary UNIDO and UNEP approaches</p>
Gender	<p><i>Key recommendation:</i></p> <ul style="list-style-type: none"> - Review, use, and promote existing operational guidelines (UNIDO: April 2009, May 2010) - Identify areas in which gender has strategic relevance for the RECP topic; establish pilot activities to build knowledge <p><i>Additional recommendations:</i></p> <ul style="list-style-type: none"> - Promote South-South cooperation by tapping existing expertise of Centres (e.g. South Africa) working on this topic - Incorporate gender aspects into own programmatic activities, where relevant - Identify needs develop a capacity-building strategy for working on these aspects

8. Annexes

8.1. Annex 1 – List of Interviewees

UNIDO Headquarters (Vienna) Staff

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
René VAN BERKEL	Unit Chief, Industrial Resource Efficiency Unit <ul style="list-style-type: none"> ➤ WS1 Operational support to the RECP_{net} until June 2015 ➤ WS3 Eco-Industrial Parks until June 2015 ➤ WS4 RECP Methods & Tools until June 2015 	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed in person in Jakarta, Indonesia on 5 July 2015 Interviewed in person in Vienna on 15 July 2015
Petra SCHWAGER	Project Manager, RECP Programme, responsible for Work Streams (WS): <ul style="list-style-type: none"> ➤ WS1 Operational support to the RECP_{net} from July 2015 ➤ WS2 Knowledge Management System from July 2015 ➤ WS6 Innovative Chemical Solutions ➤ WS7 RECP Financing from Feb 2015 ➤ WS8 Innovative Business Solutions 	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed in person in Vienna on 16-17 July 2015
Patrick NUCESSBAUMER	Project Manager, RECP Programme, responsible for Work Stream (WS): <ul style="list-style-type: none"> ➤ WS7 RECP Financing until Jan 2015 	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed in person in Vienna on 16 July 2015
Smail ALHILALI	Project Manager, RECP Programme, responsible for Work Stream (WS):	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed by Skype on 12 August 2015

	<ul style="list-style-type: none"> ➤ WS2 Knowledge Management System until June 2015 ➤ WS3 Eco-Industrial Parks from July 2015 ➤ WS4 RECP Methods & Tools from July 2015 ➤ WS5 Industrial Waste Minimization from Feb 2015 		
Jerome STUECKI	Project Manager, RECP Programme	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed in person in Vienna on 16 July 2015
Hassan MEHDI	RECP Network and Communications Secretariat	UNIDO Environment Branch, Industrial Resource Efficiency Unit	Interviewed in person in Vienna on 16 July 2015
Stephan SICARS	Director of UNIDO's Environment Branch	UNIDO Environment Branch	Interviewed in person in Vienna during 14-16 July 2015
Javier GUARNIZO	Acting Head	UNIDO Office of Independent Evaluation	Interviewed in person in Vienna on 14 and 16 July 2015
Michaela BERNDL	Assistant	UNIDO Office of Independent Evaluation	Interviewed in person in Vienna on 14 July 2015

UNEP Headquarters (Paris) Staff

Name	Function	Organization	Means
Ligia NORONHA	Director	UNEP Division of Technology, Industry and Economics Sustainable Consumption and Production Branch	Interviewed by Skype on 14 September 2015
Elisa TONDA	Head, Business and Industry Unit	As above	Interviewed in person in Vienna on 15 July 2015
Liazzat RABBIOSI	Programme Officer, of Business and Industry Unit	As above	Interviewed in person in Vienna on 15 July 2015

SECO Headquarters (Bern) Staff

Name	Function	Organization	Means
Philipp ISCHER	Programme Manager for RECP, Trade Promotion Division	SECO	Interviewed in person in Bern on 21 August 2015
Thierry BUCHS	Head, Trade Promotion Division	SECO	Met in person in Bern on 21 August 2015; copied on correspondence
Hans-Peter EGLER	Former Head, former responsible for RECP within SECO Current CEO	Global Infrastructure Basel (Switzerland)	Interviewed by Skype on 18 September 2015

RECPnet Executive Committee

Name	Function	Organization	Means
Cesar Enrique BARAHONA ZAMORA	Elected head of Regional Chapter: Latin America and the Caribbean and Member of RECPnet Executive Committee	Director, Cleaner Production Centre - Nicaragua	Interviewed in person in Vienna on 15 July 2015
Ali Mohamad JAACOUB	Elected head of Regional Chapter: Arab Region and Member of RECPnet Executive Committee	Director, Cleaner Production Centre - Lebanon	Interviewed in person in Vienna on 15 July 2015
Anthony Shun Fung CHIU	Elected head of Regional Chapter: Asia Pacific Region and Member of RECPnet Executive Committee	President, Asia Pacific Roundtable on Sustainable Development	Interviewed in person in Vienna on 15 July 2015
Ndivhuho RAPHULU	Elected head of Regional Chapter: Africa and Member of RECPnet Executive Committee	Director, Cleaner Production Centre – South Africa	Interviewed in person in Vienna on 15 July 2015
Vladimir DOBES	Elected head of Regional Chapter: Eastern Europe, Caucus, and Central Asia and Member of RECPnet Executive Committee	Director, EMPRESS; Czech Republic; former Director Cleaner Production Centre – Czech Republic	Interviewed by Skype on 17 July 2015

International Experts Engaged in the RECP Programme

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Hannes ZELLWEGER	Consultant on RECP WS5 Industrial Waste Minimization	SOFIES, Switzerland	Interviewed by Skype on 21 Aug 2015
Guillaume MASSARD	Consultant on RECP WS3 Eco Parks and WS5 Industrial Waste Minimization	SOFIES, Switzerland	Interviewed by Skype on 4 Sept 2015
David ROCHAT	Consultant on RECP WS5 Industrial Waste Minimization	SOFIES, Switzerland	Interviewed by Skype on 9 Sept 2015
Anne VERNIQUET	Consultant on RECP WS5 Industrial Waste Minimization	SOFIES, Switzerland	Interviewed by Skype on 11 Sept 2015
Suren ERKMAN	Consultant on RECP WS3 Eco Parks	SOFIES / Professor at University of Lausanne. Switzerland	Interviewed by Skype on 18 Sept 2015
Craig HAWTHORNE	Consultant on RECP WS6 Innovative Chemical Solutions	ISSPRO, Germany	Interviewed by Skype on 10 Sept 2015
Rheinhard JOAS	Consultant on RECP WS6 Innovative Chemical Solutions	BIPRO, Germany	Interviewed by Skype on 10 Sept 2015

China

National Cleaner Production Centre (CNCPC)

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Mr. Changbo ZHOU	Vice Director	China National Cleaner Production Centre (CNCPC)	Interviewed in person in Beijing on 20 July 2015
Mr. Fan WANG	Chief Engineer	CNCPC	Interviewed in person in Beijing on 20 July 2015
Mr. Cenxuan PAN	Ph.D.	CNCPC	Interviewed in person in Beijing on 20 July 2015
Ms. Jie YIN	Chief of International Cooperation & Capacity Building Division	CNCPC	Interviewed in person in Beijing during 20-24 July 2015
Ms. Yin YUAN	Engineer	China National Cleaner Production Centre (CNCPC)	Interviewed in person in Beijing on 23 July 2015
Mr. Hao WU	Engineer	China National Cleaner Production Centre (CNCPC)	Participated in introductory meeting in person in Beijing on 20 July 2015

Ms. Xiao'ao WANG	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Ms. Yajing GUO	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Ms. Guangyu DOU	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Ms. Xueting WANG	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Xinan YUAN	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Zhiyuan ZHAO	Engineer	CNCPC)	Participated in introductory meeting in person in Beijing on 20 July 2015
Junlian MENG	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015
Huajun YU	Engineer	CNCPC	Participated in introductory meeting in person in Beijing on 20 July 2015

Governmental Counterparts of the CNCPC

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Mr. Fei CHENG	Deputy Director	Hebei Provincial CPC	Interviewed by telephone on 21 July 2015
Ms. Yang LIU	Deputy Director	Shanghai CPC	Interviewed by telephone on 21 July 2015
Mr. Qi ZHOU	Division of General Management	Department of Pollution Prevention & Control, Ministry of Environmental Protection (MEP)	Interviewed by telephone on 22 July 2015
Mr. Kai ZHU	Division of Environmental Protection	Department of Resource Utilization and Environmental Protection, National Development and Reform Commission	Interviewed by telephone on 22 July 2015
Mr. Tingzheng GUO	Division of Environmental Protection	Department of Energy Saving and Resource Utilization, Ministry of Industry and Information Technology	Interviewed by telephone on 22 July 2015

Industry Representatives

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Mr. Qiliang GUI	Deputy Director, Management Committee	Zhenjiang Economic and Technological Development Zone	Interviewed by telephone on 21 July 2015
Mr. Youping WANG	Deputy Director, Bureau	Zhenjiang Economic and Technological Development Zone	Interviewed by telephone on 21 July 2015
Mr. XIE	Deputy Director	Zhenjiang EPB	Interviewed by telephone on 21 July 2015
Mr. Mi ZHAO	President and General Manager	Sino-Swiss Zhenjiang Ecological Industrial Park Company	Interviewed by telephone on 21 July 2015
Ms. Yongdong HU	Division Director, Department of Science and Technology	Guangxi EPB	Interviewed by telephone on 21 July 2015
Mr. Zu'an LIU	President	Anning Starch Co., Ltd.	Interviewed by telephone on 21 July 2015

National UNIDO and Swiss Government Representations

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Mr. Jian MA	Programme Coordinator	UNIDO Regional Office in Beijing	Interviewed in person in Beijing on 22 July 2015
Mr. Adegboyega AJANI	Industrial Development Officer	UNIDO Regional Office in Beijing	Interviewed in person in Beijing on 22 July 2015
Mr. David BRAUN	First Secretary, Head of Economic, Financial and Commercial Section,	Embassy of Switzerland, Beijing	Interviewed in person in Beijing on 22 July 2015
Mr. Fabian HELLER	First Secretary, Deputy Head of Economic, Financial and Commercial Section	Embassy of Switzerland, Beijing	Interviewed in person in Beijing on 22 July 2015
Ms. Francine HUG	Economic Officer, Economic, Financial and Commercial Section (SECO Focal Point for RECP Program in China until July 2015)	Embassy of Switzerland, Beijing	Interviewed by Skype on 6 August 2015
Mr. Erich HOESLI	Economic Officer, Economic, Financial and Commercial Section (SECO Focal Point for RECP Program in China from August 2015)	Embassy of Switzerland, Beijing	Interviewed by Skype on 6 August 2015

Egypt

National Cleaner Production Centre (ENCPC)

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Eng. Ali Abo SENA	Director	Egypt National Cleaner Production Centre (ENCPC)	In person in ENCPC office Cairo during 16-17 August 2015
Eng. Mohamed Mazen ELSHAGIE	Project Manager	Egypt National Cleaner Production Centre (ENCPC)	In person in Cairo during 16-17 August
Doaa TAWFEEK	Senior Resource Efficiency & Cleaner Production Specialist	ENCPC	In person in Cairo on 17 August 2015
Eng. Maysara FOUAD	RECP Projects Engineer, Head of RECP Team	ENCPC	In person in Cairo on 19 August 2015
Mostafa MAGHAWRY	Resource Efficiency & Cleaner Production Specialist	ENCPC	In person in Cairo on 19 August 2015
Ahmed SELIEM	Industrial Waste Exchange project manager	ENCPC	In person in Cairo on 19 August 2015

Government Counterparts of the ENCPC

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Hanan EL HADARY	Chairman Ex-Director of the ENCPC	Ministry of Industry, Trade and Small & Medium Enterprises-Industrial Council for Technology & Innovation	In person in Cairo on 17 August 2015
Maysoun Nabil MOHAMED	EPAP Project Manager, National Focal Point for Cleaner Production	Cabinet of Ministries, Ministry of State for Environmental Affairs	In person in Cairo on 20 August 2015

Industry Representatives

<i>Name</i>	<i>Function</i>	<i>Organization</i>	<i>Means</i>
Eng. Adel Abdel FATTAH	Quality Development Department	Guardian Egypt Company	In person in Cairo on 18 August 2015
Shahat SELIM	Deputy Executive Director for Technical Affairs, Technical Operations Manager	Chamber of Food Industries (CFI)	In person in Cairo on 18 August 2015
Mohamed RIAD	Technical Specialist, Trade Agreements	Chamber of Food Industries (CFI)	In person in Cairo on 18 August 2015

National UNIDO and Swiss Government Representations

Name	Function	Organization	Means
Giovanna CEGLIE	Director of Regional Office (Cairo)	United Nations Industrial Development Organization (UNIDO)	In person in Cairo on 17 August 2015
Benjamin FREY	Deputy Director of Cooperation, Focal Point for RECP Programme	Embassy of Switzerland in Egypt	In person in Cairo on 17 August 2015
Iman RADWAN	Senior National Programme Officer	As above	In person in Cairo on 17 August 2015

Other Relevant International Organizations

Name	Function	Organization	Means
Markus DONATH	Programme Coordinator	Egyptian-German Private Sector Development Programme/GIZ	In person in Cairo on 19 August 2015
Eng. Wael SABRY	Head of Component	As above	In person in Cairo on 19 August 2015
Doaa MUHAMMED	Advisor on Business Services	As above	In person in Cairo on 19 August 2015

Perú

National Cleaner Production Centre (CER)

Name	Function	Organization	Means
Marcos Alegre CHANG	Director	Centro de Ecoeficiencia y Responsabilidad Social (CER)	In person in Lima during 24-27 August 2015
Ana TERRAZOS AQUILAR	Project Coordinator re: WS#8 Chemical Leasing	CER	In person in Lima on 24 and 27 August 2015; part of Aug 26 group discussion
Marice SALVADOR	Coordinator on WS#5 Rice and Coffee Sector	CER	In person in Lima on 25 August 2015; part of group discussions on 24 & 26 Aug 2015
Denisse COTRINA	Coordinator re: Eco-Innovation	CER	In person in Lima on 26 August 2015; part of group discussions on 24 & 26 Aug 2015
Rossana PASSONI	Coordinator re: WS#6 Innovative Chemical Solutions	CER	In person in Lima on 25 August 2015 and participated in Aug 26 group discussion
Paloma MATURANA	Coordination Coordinator	CER	Participant in group discussions on 24 and 26 August 2015

Sandro Castillo MEZA	Assistant	CER	Participant in group discussions on 24 and 26 August 2015
Miriam BRAVOM	Group Administrator	Grupo GEA (Group Holding company which includes CER)	Participant in group discussion on 24 August 2015

External Consultants to CER

Nicolas DETIFFE	CER external consultant on WS#5 Rice and Coffee Sector	Peruvian Ministry of Environment	In person in Lima on 25 August 2015; follow-up on 18 Sept 2015 by email
Juerg SCHMIDLIN	CER external consultant Team Leader on WS#5 Rice and Coffee Sector		By Skype on 8 September 2015

Industry Representatives

Dalmacio CAMARA	General Manager	APEMA – San Martin	Telephone call on 25 August 2015
Luis FIGUERO	Technical Chief	J&S Ferretería Industrial (Trademark Universal Colors)	Telephone call on 25 August 2015
Juan VIER	Representative	Finca Santa Josefa de Oxapampa	In person in Lima on 26 August 2015

Governmental Counterparts, other National Stakeholders

Rosa Maria DEL CASTILLO	General Director Environmental Affairs	Ministry of Production	In person in Lima on 26 August 2015
Mariano Castro SANCHEZ MORENO	Vice Minister of Environmental Management	Ministry of Environment	In person in Lima on 26 August 2015
Anna ZUCCHETTI	Dean of Environmental Sciences; previously was part of the NGO where CER was hosted until 2010	Universidad Científica del Sur	In person in Lima on 24 August 2015

National UNIDO and Swiss Government Representations

Johannes DOBINGER	Representative	UNIDO (Bogota) Oficina para la Region Andina	Skype call on 26 August 2015
Martin PETER	Focal Point for RECP Programme	SECO (Lima) Embajada de Suiza	Skype call on 8 September 2015

8.2. Annex 2 – List of Documents Consulted or Reviewed

General RECP Programme documents, Founding documents

1. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Programme Strategy; 31 January 2009
2. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Project Document; 18 February 2009
3. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Progress report jan – jun 2012; 28 September 2012
4. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Progress report jul – dec 2012; 6 May 2013
5. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Progress report jan – dec 2013; 15 April 2014
6. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Progress report jan – dec 2014; 8 June 2015
7. Joint global UNIDO UNEP Resource Efficient and Cleaner Production programme for developing and transition countries Swiss funded global programmatic activities workplan 2015 and outlook 2016-2017; Date unknown
8. 2012 – 2013 Workplan Global Network: Resource Efficient and Cleaner Production – Final version; 26 March 2012
9. Global Network for Resource Efficient and Cleaner Production (RECPnet) Work Plan 2014-2015; 4 May 2014
10. CHARTER Global Network for Resource Efficient and Cleaner Production (RECPnet); Date unknown
11. Global network for Resource Efficient and Cleaner Production (RECPbet) Established with support of UNIDO and UNEP – By-Law: CODE OF CONDUCT; Date unknown
12. RECPnet REGULAR and OBSERVER Members; September 2014
13. Global network for Resource Efficient and Cleaner Production (RECPnet) Established with support of UNIDO and UNEP – By-Law: MEMBERSHIP; Date Unknown
14. 1st Members' Assembly of the Global Network for Resource Efficient and Cleaner Production in developing and transition countries (RECPnet); 19 October 2011; Nairobi, Kenya
15. Nairobi Declaration of the Global Network for Resource Efficient and Cleaner Production in developing and transition countries (RECP net); 19 October 2011; Nairobi, Kenya
16. 3rd Global Networking Conference on Resource Efficient and Cleaner Production (RECP) in developing and transition countries – Conference Report; 5-6 September 2013a; Montreux
17. Looking Backward-Looking Forward: 20 years of the UNIDO-UNEP National Cleaner Production Centres; 22 December 2014; Ralph A. Luken, Rene Van Berkel and Heinz Leuenberger

18. Update on SECO-supported activities under the Resource Efficient and Cleaner Production (RECP) Programme December 2014
19. Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – UNIDO Work Plan 2012 and Outlook 2013-2016 for Programmatic Activities; 28 March 2012
20. Global promotion, adaptation and application of innovative chemical leasing business approaches for sound chemicals management – Project document; 1 July 2011

Evaluation Guidelines UNIDO

21. Glossary of Key Terms in Evaluation and Results Based Management; OECD 2002
22. GUIDE ON GENDER MAINSTREAMING ENERGY AND CLIMATE CHANGE PROJECTS; December 2014; Vienna, Austria
23. Guide for integrating gender into evaluations of UNIDO projects and programmes – Draft; June 2009
24. Integrating Human Rights and Gender Equality in Evaluation -- Towards UNEG Guidance; March 2011
25. Norms for Evaluation in the UN System; April 2005
26. Standards for Evaluation in the UN System; April 2005
27. UNIDO DIRECTOR GENERAL'S BULLETIN – EVALUATION POLICY; 20 March 2015
28. UNIDO Evaluation Inception Report: - Standard format
29. UNIDO Guidelines on technical cooperation programmes and projects , 2006

Workstream (WS) 3 on EIPs

30. CNCPC China
31. UNIDO-UNEP Resource Efficient and Cleaner Production Programme in China – Work Programme; 21 December 2012
32. Proposal for Resource Efficient and Cleaner Production (RECP) Pilot Project to Foster Eco-Industrial Development in Zhenjiang Economic and Technological Development Zone (ZETDZ) in PR China; 19 June 2014
33. Review and Assessment of the 2003 China Cleaner Production Promotion Law (CCPPL) – Progress Report; 19 June 2015
34. UNIDO RECP Report-1 Eco-Industrial Parks in Emerging and Developing Countries: The Case of Dalian Development Area (DDA) in China; 21 March 2014
35. EIP Case Study in China — Guangxi Xianggui Sugar Eco-Industrial Parks; 15 October 2013
36. Policy Documentation and Review on National Experiences with Development, Implementation and Management of Eco-industrial Parks in China; 28 August 2013
37. EIP Case Study in China – Shanghai Chemical Industry Economic and Technology Development Park; 21 March 2014

38. UNIDO RECP Report-3 Eco-Industrial Parks in Emerging and Developing Countries: the Case of Shenyang Development Area (SDA) in China; 21 March 2014
39. Second case report for UNIDO's RECP project Eco-Industrial Parks in Emerging and Developing Countries: the Case of Tianjin Economic Development Area (TEDA) in China; 21 March 2014
40. EIP Case Study in China Zhenjiang New Energy Industrial Park; 15 October 2013
41. Terms of Reference – Review and Assessment of the 2003 China Cleaner Production Promotion Law (CCPPL); 3 September 2014
42. Eco-Industrial Parks in Emerging and Developing Countries Achievements, good practices and lessons learned; 4 August 2014
43. Reports overview UNIDO RECP Programme in Dropbox (status 7 Sep 2015)

WS 5 : Industrial Waste MINIMIZATION for Low Carbon Production

Recruitment:

44. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production; 31-01-2015
45. Autor: Philippe Le Gal (Trident Service) → ARGOS report
46. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production; 31-01-2015
47. Autor: Philippe Le Gal (Trident Service) → CEMEX report
48. MISSION UNIDO COLOMBIA, EXPERTISE IN RICE HUSK CO-PROCESSING, Detailed Work plan of the Mission; 09-09-2014; Philippe LE GAL
49. INDIVIDUAL SERVICE AGREEMENT, INTERNATIONAL CONSULTANT; 18-08-2014; Mr. Philippe Andre Clement J. M. LE GAL
50. Expert for an assessment study on rice husk conversion into bricks/briquettes/pellets in Asia in general with a special focus on Vietnam and Cambodia; 01-10-2014 (Start of contract)

Procurement:

Colombia

51. CONTRACTOR PERFORMANCE EVALUATION, STRICTLY CONFIDENTIAL, NOT FOR RELEASE OUTSIDE OF UNIDO; 26-03-2015; Colombia
52. Coffee sector findings, Visit findings 03-07-2014; Colombia
53. Contract Caffe y Arroz, between Centro Nacional de Produccion mas limpia and UNIDO; 23-05-2014; Colombia
54. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; La Arboleda Farm – Coffee
55. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; Patio Bonito Farm – Coffee

56. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; Florhuila Campoalegre Mill – Rice
57. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; Microcentral La Arboleda – Coffee
58. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; ARGOS Cement Company – Rice – Colombia
59. Thematic RECP Waste minimization for low carbon production ; Fact Sheet – CP Measures – Coffee sector – Colombia; Florhuila Campoalegre Mill – Rice – Colombia
60. Joint UNIDO-UNEP Programme on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries - Industrial Waste Minimization for Low Carbon Production – Colombia – Phase 2 ; March 2015 ; Carlos Arango

China

61. Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries - Industrial Waste Minimization for Low Carbon Production - Terms of Reference; 26 September 2014 ; China
62. Contract between CHINA NATIONAL CLEANER PRODUCTION CENTER (CNCPC) and UNIDO ; 15-11-2014
63. Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries - Industrial Waste Minimization for Low Carbon Production - RECP Assessment and Dissemination of Cassava Industry in Guangxi, China – Proposal ; 11-10-2014 ; Zhou Changbo

Perú

64. CONTRACTOR PERFORMANCE EVALUATION, STRICTLY CONFIDENTIAL, NOT FOR RELEASE OUTSIDE OF UNIDO; 02-04-2015; Perú
65. Contract for the provision of services required for the GLOBAL UNIDO-UNEP PROGRAMME ON RESOURCE EFFICIENT AND CLEANER PRODUCTION (RECP) IN DEVELOPING AND TRANSITION COUNTRIES for the National Cleaner Production Centre Perú; 08-01-2013
66. Thematic RECP Waste minimization for low carbon production - Fact Sheet – Advanced CP Measures – Rice sector – Perú; Developing a business case for rice husk valorization for 3 millers - Rice – Perú
67. List of potential investors; Rice and Coffee; Perú
68. LCM-CMM – Finca Mountain Villa Rica (Finca Santa Josefa), coffee company of Perú - OPTIONS ASSESSMENT; 30-06-2014; Perú
69. Proyecto Minimización de Residuos para una producción Baja en Carbono - Programa de Eficiencia de Recursos y Producción Limpia (RECP) – ONUDI; 19-02-2015
70. List of contacts in Perú projects
71. Pyrolysis for coffee pulp valorization?; Word resources forum, Arequipa; October, 2014
72. Biochar project - COOPARM, coffee company of Perú; 29-09-2014; Lima

73. Máquinas y equipos BUHLER en Perú; 18-11-2014; Maricé Salvador A.
74. Pyrolysis data and calculation; Perú
75. "Industrial Waste Minimization for Low Carbon Production" - Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries - Final Report October 2014 - February 2015; March 2015; Jürg Schmidlin (CER); Perú
76. Rice to electricity Tarapato scenarios; Perú
77. Pyrolysis for coffee pulp valorization; Jürg Schmidlin et al.; date unknown
78. Contract between CENTRO DE ECOEFICIENCIA Y RESPONSABILIDAD SOCIAL (CER) and UNIDO ; 04-06-2014
79. Contract for the provision of services required for the GLOBAL UNIDO-UNEP PROGRAMME ON RESOURCE EFFICIENT AND CLEANER PRODUCTION (RECP) IN DEVELOPING AND TRANSITION COUNTRIES for the National Cleaner Production Centre Perú; 22-08-2014

Cambodia

80. Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in - Developing and Transition Countries - Industrial Waste Minimization for Low Carbon Production - Terms of Reference; 27-02-2014; Cambodia
81. Contract between NATIONAL CLEANER PRODUCTION OFFICE - CAMBODIA and UNIDO ; 02-06-2014
82. INDUSTRIAL WASTE MINIMIZATION FOR LOW CARBON PRODUCTION - Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries UE/GLO/11/E35 - FINAL REPORT; 2013; Cambodia

Sofies SA

83. Contract between SOFIES SA and UNIDO ; 15-02-2014
84. Contract between SOFIES SA and UNIDO ; 23-10-2014
85. UNIDO PROJECT NO.: UE/GLO/11/E35 - GLOBAL UNIDO-UNEP PROGRAMME ON RESOURCE EFFICIENT AND CLEANER PRODUCTION (RECP) IN DEVELOPING AND TRANSITION COUNTRIES – Request for Proposal (RFP) No. 1100020704 – Industrial Waste Minimization for Low Carbon Production; 10-10-2014; Sofies SA
86. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Quarterly activity report number 1, 2014; 28-04-2014; Sofies SA
87. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Quarterly activity report number 2, 2014; 14-08-2014; Sofies SA
88. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Rice Sector Assessment; August 2014; Sofies SA
89. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Annex documents to the Rice Sector Assessment; August 2014; Sofies SA

90. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Annex to the Rice Sector Assessment: detailed description of RECP Solutions in the Rice sector; August 2014; Sofies SA
91. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Annex to the coffee Sector Assessment: detailed description of RECP Solutions in the coffee sector; November 2014; Sofies SA
92. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and
93. Transition Countries: Industrial Waste Minimization for Low Carbon Production - Annex documents to the coffee sector assessment; November 2014; Sofies SA
94. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Quarterly activity report number 3, 2014; 14-08-2014; Sofies SA
95. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Coffee Sector Assessment; December 2014; Sofies SA
96. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Inception Report Cassava Starch Industry, Guangxi Province (China); January 2015; Sofies SA
97. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Mission Report, 15-22 January 2015 Cassava Starch Industry, Guangxi Province (China); January 2015; Sofies SA
98. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Quarterly activity report number 4 – Final Report 2014 – January 2015; 15-02-2015; Sofies SA
99. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Quarterly activity report 2013; 21-12-2013; Sofies SA
100. Casava Guangxi China Financial Model
101. Mission report Julien Haarman / 28.10.14 – 31.10.14; 06-11-2014; Casava Guangxi China
102. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production - Onsite Valorization; December 2014; Sofies SA
103. Summary of Factories; Nanning; Casava Guangxi China
104. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production Workplan China; 29-07-2014; Sofies SA
105. Business Case Song Hau Food Company, Vietnam, 2015.

Vietnam

106. CONTRACTOR PERFORMANCE EVALUATION, STRICTLY CONFIDENTIAL, NOT FOR RELEASE OUTSIDE OF UNIDO; 10-03-2015; Vietnam
107. Contract between VIETNAM CLEANER PRODUCTION CENTRE VNCP and UNIDO ; 23-05-2015
108. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production – Final report for VN 2013; Date Unknown; Vietnam
109. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production – Final report for Vietnam 2014; Date Unknown; Vietnam
110. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production – RECP assessment report May-December 2014; Date Unknown; Vietnam
111. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production – RECP assessment report May-December 2014; Date Unknown; Vietnam → VEC Rice
112. Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production – RECP assessment report May-December 2014; Date Unknown; Vietnam → Vinasilicates Company

Meetings and Events

113. Joint UNIDO – UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries - AIDE MEMOIRE - Expert Group Meeting on the Waste Minimization for Low Carbon Production Cassava-starch sector in Guangxi province, China; 30-10-2014; Nanning China

WS6 Safe and responsible Production - Innovative Chemical Solutions

114. ICS Toolkit revised version 2014 with Annexes
115. Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries – Innovative approaches to sound management of chemicals and chemical waste – Management Report 2014
116. APPENDIX B – Session: Experts Group Meeting on innovative approaches to sound management of chemicals and chemicals wastes; 3 September 2014
117. APPENDIX C – General comments to innovation assessment reports of NCPC Egypt; Date unknown
118. APPENDIX D – QROMA Innovation Assessment Workshop Report – Environmentally Sound Management of Chemicals and Chemical Wastes; 16 November 2014; Munich, Germany
119. APPENDIX D2 – SOPRIN Innovation Assessment Workshop Report Environmentally Sound Management of Chemicals and Chemical Wastes; 16 November 2014; Munich, Germany

120. APPENDIX D3 – UNIQUE Innovation Assessment Workshop Report Environmentally Sound Management of Chemicals and Chemical Wastes; 16 November 2014; Munich, Germany
121. UNIDO ENVIRONMENTALLY SOUND MANAGEMENT OF CHEMICALS AND CHEMICAL WASTE FINAL REPORT, PHASE 1, CONTRACT NO. 3000017184, PROJECT NO.: UE/GLO/11/E35; 31 December 2013; Pratteln, Switzerland
122. APPENDIX A – Environmentally Sound Management of Chemicals and Chemical Wastes – First Progress Report; 10 September 2013
123. UNIDO ENVIRONMENTALLY SOUND MANAGEMENT OF CHEMICALS AND CHEMICAL WASTE FIRST & SECOND PROGRESS REPORT, PHASE 2, CONTRACT NO. 3000017184, PROJECT NO.: UE/GLO/11/E35; 30 June 2014; Pratteln, Switzerland
124. Innovative solutions for environmentally sound management of chemicals and chemical wastes – Discussion on year 2; 4 September 2014
125. UNIDO programme Innovative solutions for environmentally sound management of chemicals and chemical wastes – PROJECT FOLLOW-UP FIRST YEAR; April 2014
126. Expert Group Meeting – Innovative Approaches to sound chemicals management; 7-11 April 2014
127. Final Report ICS project Egypt NCPC Egypt, 2014.

WS7 Financing instruments

128. UNEP – UNIDO program Financing Instruments Workstream – Review of RECP financing options and recommendations for the programme; 4 July 2014
129. SECO-supported activities under the UNEP – UNIDO RECP Program – Financing Instruments Workstream – Review of RECP financing options and recommendations for the workstream; 12 September 2014
130. SECO-supported activities under the UNEP – UNIDO RECP Program – Financing Instruments Workstream – Review of RECP financing options and recommendations for the workstream; 27 August 2014
131. Financing Instruments Workstream – Review of RECP financing options and recommendations for the workstream – SUMMARY PRESENTATION; 19 September 2014

WS8 Innovative Business Models - Chemical Leasing

132. United Nations Industrial Development Organization Vienna – Chemical Leasing Programme Strategy 2015-2024; 26 May 2015
133. United Nations Industrial Development Organization, Global Chemical Leasing Programme – Global promotion, adaptation and application of innovative Chemical Leasing business models – Annual Report 2014; 14 July 2015
134. Chemical Leasing – 2004-2014: 10 years together; 10 December 2014
135. Global promotion, adaptation and application of innovative chemical leasing business approaches for sound chemicals management – Project Document; 1 July 2011
136. Summary report on the findings of the study “Chemical Leasing within industrial and service sector cleaning operations” and proposal for strategic objectives; Date unknown

137. GAIA - Innovative Business Models and the RECP Programme Status report; 7 February 2014
138. UNIDO RECP Study Chemical Leasing within industrial and service sector cleaning operations – Final report; March 2015

2007 - 2008 CP Programme evaluations

139. A 20-year retrospective of the National Cleaner Production Centres programme; Luken et al.; Journal of Cleaner Production 2015
140. Independent Evaluation and Strategic Review of the UNIDO Cleaner Production Programme and Related Initiatives; 2007
141. Independent Evaluation of the UNIDO-UNEP Cleaner Production Programme – Country Evaluation Report: P.R. of China; April 2008; Rene van Berkel
142. Independent Evaluation and Strategic Review of the UNIDO/UNEP Cleaner Production Programme and Related Initiatives – Country Review Report: Egypt draft version; 20 August 2007; Hans Schnitzer
143. Independent Evaluation and Strategic Review of the UNIDO/UNEP Cleaner Production Programme and Related Initiatives – Country Review Report: Perú; 30 November 2007; Johannes Dobinger

COUNTRY REPORT REFERENCES (strong overlap with the above, not numbered).

Documents consulted for China Country report:

Project planning and evaluation documents

- Project Document - Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries
- Programme Strategy- Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries
- 2012 – 2013 Workplan Global Network: Resource Efficient and Cleaner Production
- Global Network for Resource Efficient and Cleaner Production (RECPnet) Work Plan 2014-2015
- Swiss funded global programmatic activities workplan 2015 and outlook 2016-2017
- Terms of Reference – To appraise the potential for replication of Resource Efficient and Cleaner Production in selected regions and sectors in China
- Terms of Reference - Documentation and review national experiences with development, implementation and management of eco-industrial parks in China
- Terms of Reference - Industrial Waste Minimization for Low Carbon Production
- Terms of Reference - Review and Assessment of the 2003 China Cleaner Production Promotion Law (CCPPL)

Reporting

- SECO RECP Programme progress report Jan - June 2012
- SECO RECP Programme progress report Jul - Dec 2012
- SECO RECP Programme progress report Jan - June 2013
- SECO RECP Programme progress report Jul - Dec 2013
- SECO RECP Programme progress report Jan - June 2014
- Progress Report- Review and Assessment of the 2003 China Cleaner Production Promotion Law (CCPPL)

- Final Report - Industrial Waste Minimization for Low Carbon Production
- Appraisal Report of Resource Efficient and Cleaner Production (RECP) in Guangxi Sugar Industry
- Appraisal Report of Resource Efficient and Cleaner Production (RECP) in Wei River Basin
- Appraisal Report of Resource Efficient and Cleaner Production (RECP) in Zhenjiang Economic and Technology Development Zone (ZETDZ)
- Policy Documentation and Review on National Experiences with Development, Implementation and Management of Eco-industrial Parks in China
- EIP Case Study in China-Guangxi Xianggui Sugar Eco-Industrial Parks
- EIP Case Study in China-Shanghai Chemical Industry Economic and Technology Development Park
- EIP Case Study in China-Zhenjiang New Energy Industrial Park
- Proposal for Resource Efficient and Cleaner Production (RECP) Pilot Project to Foster Eco-Industrial Development in Zhenjiang Economic and Technological Development Zone (ZETDZ) in PR China

Documents relating to programme outputs

- UNIDO Evaluation Inception Report: Standard format
- Global Network for Resource Efficient and Cleaner Production (RECPnet) Executive Committee Meeting – Evaluation session 14-16 July 2015
- Good Organization, Management and Governance Practices: A Primer for Providers of Services in Resource Efficient and Cleaner Production (RECP)
- Global Network for Resource Efficient and Cleaner Production (RECPnet)
- 3rd Global Networking Conference on Resource Efficient and Cleaner Production (RECP) in developing and transition countries
- Nairobi Declaration of the Global Network for Resource Efficient and Cleaner Production in developing and transition countries (RECP net)
- RECPnet REGULAR and OBSERVER Members
- CODE OF CONDUCT- Global network for Resource Efficient and Cleaner Production (RECPbet) Established with support of UNIDO and UNEP
- GUIDE ON GENDER MAINSTREAMING ENERGY AND CLIMATE CHANGE PROJECTS

Other Documents

- Presentation by CNCPC - Introduction to China NCPC and the overview of RECP Projects in China
- Presentation by CNCPC - Resource Efficient and Cleaner Production Projects in China
- Presentation by CNCPC - Industrial Waste Minimization for Low Carbon Production: Cassava sector in China
- Presentation by CNCPC - China Cleaner Production Technology Union
- Presentation by CNCPC - A Brief Introduction of Chinese Cleaner Production Union
- Presentation by René VAN BERKEL-Resource Efficient and Cleaner Production Pilot Project to Foster Eco-Industrial Development in Zhenjiang Economic and Technological Development Zone

Documents consulted for Egypt Country Chapter:

Project planning and evaluation documents

- Egypt National Cleaner Production Centre (ENCPC) Business Plan, 2014 – 2016.
- Power Point Presentation on Egypt National Cleaner Production Centre, Presented to the Minister of Industry, Trade and Small & Medium Enterprises, 2014.
- Inception Note for Independent Mid-Term Evaluation of the Joint UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for Developing and Transition Countries. Prepared by Dr. Joyce Miller, International Evaluation Expert
- Dr. Marcel Crul, International RECP Expert, August 2015.

- Good Organization, Management and Governance Practices: A Primer for Providers of Services in Resource Efficient and Cleaner Production (RECP) United Nations, UNIDO-UNEP, Vienna, 2010.
- UNIDO Evaluation Group, **Independent** Evaluation UNIDO-UNEP Cleaner Production Programme. Prepared in cooperation with the United Nations Environment Programme Evaluation and Oversight Unit, Supported by the Austrian Ministry of International and European Affairs, Swiss State Secretariat for Economic Affairs (SECO), UNIDO, Vienna, 2008.

Reports & Documents relating to Fact Finding Mission

- Eco-Industrial Parks in Emerging and Developing Countries, A Project under the Global RECP Programme Achievements, Good Practices and Lessons Learned In EGYPT October 2013.
- Eco-Industrial Parks in Emerging and Developing Countries, A Project under the Global RECP Programme , Case Study: 6th of October Industrial City in EGYPT August 2013.
- Eco-Industrial Parks in Emerging and Developing Countries, A Project under the Global RECP Programme Case Study: 10th of Ramadan Industrial City in EGYPT September 2013.
- Joint UNIDO–UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries. Innovative Chemical Solutions– environmentally sound management of chemicals and chemical wastes -.Terms of Reference (UEGLO11E35) NCPCEgypt.
- Assessment Summary of the Five Companies, Innovative Chemical solutions Project.
- Global Project on: Innovative Chemical Solutions Environmentally Sound Management of Chemicals and Chemical Wastes.
- Final Report, Prepared by: The Egypt National Cleaner Production Centre, Submitted to: Project Manager at UNIDO, H.Q.

Documents consulted for Perú Country Chapter:

Project planning and evaluation documents

- “Industrial Waste Minimization for Low Carbon Production”
Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries.
Final Report October 2014 - February 2015
Jürg Schmidlin (CER).
- “Industrial Waste Minimization for Low Carbon Production” Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries
Interim Report January- September 2014
Jürg Schmidlin (CER)
- Executed Budget 2014-2015 “Industrial Waste Minimization for Low Carbon Production”
- “Innovative Chemical Solutions”
Environmentally sound management of chemicals and chemical wastes
Final Report – September 2014

- Executed Budget 2013- 2014 “Innovative Chemical Solutions”

Reporting

- Innovative Chemical Solutions: Case Study : J & S Ferreteria Industrial
- Innovative Chemical Solutions: Case Study: UNIQUE´S Cosmetic
- UNIDO Programme Innovative solutions for environmentally sound management of chemicals and chemical wastes. PROJECT FOLLOW-UP - FIRST YEAR- April 2014.
- ECO PARQUE CALLAO:
- CHEMICAL LEASING: Presentation Global Chemical Leasing Award 2014 - Michael Klug, Ana Terrazos

Documents relating to programme outputs

- UNIDO-UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries. Alternativas recomendadas Finca Santa Josefa, Villa Rica -Lima, 17 de Marzo 2014 CER.
- Joint UNIDO–UNEP Program on Resource Efficiency and Cleaner Production (RECP) in Developing and Transition Countries: Industrial Waste Minimization for Low Carbon Production. - RECP in Rice and Coffee Sectors - Mission report - País: Colombia - 15th-20th Septiembre 2013, FINAL - Report by Jürg Schmidlin - Reviewed by: Nicolas y Maricé
- Eco-Industrial Parks in Emerging and Developing Countries: Achievements, good practices and lessons learned in planning, development and management of eco-industrial parks (UNIDO - A project under the global RECP Programme)
Park “EcoPYMES Pantanos de Villa National Reviews of Example Eco-Industrial Parks - Marcos Alegre Chang, *Principal Specialist* , Lourdes Fernández, *Senior Specialis* - 2012t

Other Documents

- Guidelines for the scale up strategy in resource efficiency and cleaner production programs (first draft) – Marcos Alegre CER - 26.09.09
- EXPERT MEETING: Innovative solutions for environmentally sound management of Chemicals and chemical wastes - UNIDO Vienna, Austria – April 2014
- Informe Final: Informe de Diagnóstico de pequeñas y medianas empresas de la zona del cono sur de Lima Proyecto Environmental challenges and employment: the case of SMEs in Argentina and Perú Elaborado por: Javier Rua Montes Junio 2013
- Reglamento de Gestión Ambiental para la Industria Manufacturera y Comercio Interno PRODUCE- agosto 2015
- Ejes estratégicos para el desarrollo sostenible e inclusivo. Resolución Suprema N° 189-2012-PCM - MINAM

8.3. Annex 3 – Summary of Financial Data

Financial Status as of 30 June 2015	Expenditures in EUR (€)	% of expenditures	% of transferred budget	% of total funding
Output 1.1 RECP Network				
WS1: Operational support RECPnet	887,581	17.0%	11.5%	6.6%
WS2: RECP Knowledge Management System	564,386	10.8%	7.3%	4.2%
subtotal	1,451,967	27.8%	18.8%	10.8%
Output 1.3 Scaling up RECP				
WS3: Eco-Industrial Parks	319,652	6.1%	4.1%	2.4%
WS4: RECP Methods and Tools	291,867	5.6%	3.8%	2.2%
subtotal	611,520	11.7%	7.9%	4.6%
Output 2.2 RECP for Waste and Emission Prevention				
WS5: Industrial Waste Minimization	1,940,266	37.2%	25.1%	14.5%
subtotal	1,940,266	37.2%	25.1%	14.5%
Output 2.2. Safe and Responsible Production				
WS6: Innovative Chemical Solutions	992,122	19.0%	12.8%	7.4%
subtotal	992,122	19.0%	12.8%	7.4%
Output 3.2: RECP financing				
WS7: RECP Financing Instruments	33,125	0.6%	0.4%	0.2%
WS8: Innovative Business Models	150,481	2.9%	1.9%	1.1%
subtotal	183,606	3.5%	2.4%	1.4%
Evaluation	39,339	0.8%	0.5%	0.3%
Grand Total	5,218,819	100.0%	67.6%	38.9%

By 30 April 2015, EUR 4,986,851¹⁰ had been expended (including PSC), representing 65% of the funding received at that time or 37% of the total funding committed through the funding agreement. The breakdown of expenditures in the following table shows that outputs 2.2, 1.2 and 2.3 have accounted for 85% of the expenditures so far.

Financial Status as of 30 th April 2015	Expenditures (incl PSC)	% of implemented	% of transferred	% of total funding
Output 1.1 RECP Network				
WS1: Operational support RECPnet	€ 885,892	18%	11%	7%
WS2: RECP Knowledge Management System	€ 560,718	11%	7%	4%
subtotal	€ 1,446,610	29%	19%	11%
Output 1.3 Scaling up RECP				
WS3: Eco-Industrial Parks	€ 312,162	6%	4%	2%
WS4: RECP methods and tools	€ 287,294	6%	4%	2%
subtotal	€ 599,456	12%	8%	4%

¹⁰ Funding is provided by SECO in CHF and converted into EUR upon receipt at applicable bank rates at respective dates of funds transfer

Output 2.2 RECP for Waste and Emission Prevention				
WS5: Industrial Waste Minimization	€ 1,784,510	36%	23%	13%
subtotal	€ 1,784,510	36%	23%	13%
Output 2.2. Safe and Responsible Production				
WS6: Innovative Chemical Solutions	€ 991,818	20%	13%	7%
subtotal	€ 991,818	20%	13%	7%
Output 3.2: RECP financing				
WS7: RECP financing instruments	€ 29,940	1%	0%	0%
WS8: Innovative Business Models	€ 134,516	3%	2%	1%
subtotal	€ 164,456	3%	2%	1%
grand total	€ 4,986,851	100%	65%	37%

8.4. Annex 4 – Semi-Structured Interview Guide

The following framework was used as a general basis to guide interviews and discussions:

- 1) What is your relationship / role / interest in the RECP Programme?
- 2) In your view, what are the goals of the (programme, project, activity) with which you are linked?
- 3) On a scale from 0 to 100%, could you give me an indication of the level of achievement right now?
- 4) How do you feel about this level; is it too low, just about right, far exceeded your expectations? Describe, probe, explore
- 5) What has helped with respect to achieving this level? Describe, probe, explore
- 6) What has hindered the achievement, or gotten in the way? Describe, probe, explore
- 7) What strengths, weaknesses, opportunities, threats, and risks have you seen with respect to your work on the RECP Program?
- 8) What do you or others need to change, moving forward?
- 9) What resources (human, organizational, financial, etc.) will be needed to facilitate this?
- 10) In which way will you procure those resources?
- 11) What is the most important question that I should I ask that I haven't asked you until now?

8.5. Annex 5 – Survey Administered to RECPnet Members



Please read carefully to facilitate your understanding of this survey

Dear RECPnet member,

This online survey is being carried out by CAPRESE on behalf of the Evaluation Team that has been recently commissioned by UNIDO to undertake an independent mid-term evaluation of the global RECP Program. Your perspectives and contributions to this survey by 1 September 2015 would be highly appreciated!

Your input will be one of the elements used to assess the initial performance of the program, ascertain its continued relevance, and provide recommendations that will be used to optimize activities during the remainder of the implementation period to 2016, and potentially beyond.

This evaluation focusses on activities that have been primarily funded by the Swiss Government (SECO). This includes the operation of the RECPnet (Workstream 1) and its underlying knowledge management system (KMS, Workstream 2), in which all RECPnet members have a stake.

Additionally, the evaluation covers activities related to Workstreams (WS) in which you may or may not be actively participating, i.e. Eco-Industrial Parks (WS3), RECP Methods & Tools (WS4), Industrial Waste Minimization for Low Carbon Production (WS5), Innovative Chemical Solutions (WS6), RECP Financing (WS7), Innovative Business Models, such as chemical leasing (WS8).



We would highly appreciate to have your honest input. All responses will be kept confidential within the Evaluation Team. Any reference to your input will be conveyed in an aggregated confidential manner. To be realistic, you should reserve one to two hours to complete the questionnaire..

Please submit the completed survey **by 1 September 2015**

As already communicated by the UNIDO Head of Independent Evaluation Mr. Javier Guarnizo, the team for this evaluation is comprised of an international evaluation expert and team leader, Dr. Joyce Miller of CAPRESE (Switzerland), a senior RECP expert, Dr. Marcel Crul from University of Technology Delft (The Netherlands), and national evaluation experts in China, Egypt, and Perú, which are the three countries selected for fact- finding as examples of the roll-out of the global RECP Program.

In order to participate, you may either:

1.

or

2. Copy-paste the entire following link between quote marks (NOT including the quote marks) in a web browser

" <http://www.sogosurvey.com/k/SsRPTSsYsPsPsP> "

On behalf of the Evaluation Team, your input is highly valued!

Dr. Marcel Crul, International RECP Expert

Dr Joyce Miller, International Evaluation Expert/Team Leader

This email is sent on behalf of CAPRESE and the RECP Programme by SoGoSurvey. If you have any questions about the email, please contact the sender by replying to this email.

If you prefer not to receive future reminders about this survey, please [click here](#).

If you prefer not to receive future surveys from the organization behind this survey, please [click here](#).

Section 1: General Information and Profile

1a. Name of Your Organization

1b. Contact person for this survey

1c. Contact information (*separate lines*):

phone

primary email

alternate email

2) Involvement in RECP Programme. All members are involved in *RECPnet* (Workstream 1) and the KMS - Knowledge Management System (Workstream 2). In addition to this, your organization is : (choose one):

- a. Eligible for funding from Swiss Government for activities in Workstreams 3 to 8 (go to question 3)
- b. Not eligible for funding from the Swiss Government for activities in Workstreams 3 to 8 but have received funding from other sources (go to question 4)
- c. Not involved in any activity of Workstreams 3 to 8 (go to question 5)

3a. Total funding (for Organization) provided for Workstreams 3-8 by UNIDO (using funding provided by the Swiss Government) from Jan 2012 to present

3b. For what activity(ies)? ...EUR

Specific amounts for each activity ...EUR

3c. Describe closely-related activities (with same content as workstreams) which are outside of those funded by the Swiss Government

3d. Total funding (for your organization) for these activities...EUR

4a. Total funding for your organization provided for workstreams by other donors from Jan 2012 to present ...EUR

4b. For what activity(ies)? ... Specific amounts for each activity ...EUR

5. Your organization's profile - In July 2015, you were asked to provide UNIDO Secretariat with your organizations' profile.

5a. Did you send your profile to UNIDO? Yes/no

5b. If Yes – we will retrieve it from UNIDO

5c. If No – please provide this to UNIDO by 28 August 2015, in their requested format

Section 2: General Questions about the RECP Programme

Overall, (including *RECPnet*, knowledge management and the substantive workstreams 3-8, if your organization is involved in these), how do you rate the RECP Program with regard to:

6a. **Relevance** of the Programme in the context of developments related to RECP in your country:

- for your Organization high/low

- for the target Beneficiaries high/low

6b. Please summarize the main arguments for your rating

7a. **Efficiency** of the Programme (design, management, resources) to execute the activities and deliver the outputs and outcomes required for the target groups (i.e. the RECP network and industry in your country) high/low

7b. Please summarize the main arguments for your rating

8a. **Effectiveness** of the Programme to achieve the outputs and outcomes with good quality and as appropriate for the target groups high/low

8b. Please summarize the main arguments for your rating

9a. **Impact** of the Programme's substantive workstreams (3 – 8) in your country related to replication and/or multiplication by your Organization and other stakeholders -high/low

- Not applicable (my organization is not involved in these workstreams)

9b. Please summarize the main arguments for your rating

10a. **Sustainability** of the Programme design now or expected in the near future (for instance, through sustained capacity, proven benefits for the target group and developmental changes perceived in your country as a result of the Programme). high/low

10b. Please describe the main arguments for your rating

11a. **Ownership** of the Programme by your Organization: the extent to which you have been involved in and are actively participating in the formulation, fine-tuning and its implementation high/low

11b. Please describe the main arguments for your rating

XX. To what extent are Gender aspects considered and/or mainstreamed in your activities?

Use 4-point scale

Please describe

Section 3: Global RECP Network, RECPnet (Workstream 1) and Knowledge Management System (Workstream 2)

12a. How do you rate the operational support of the Programme with respect to the development and implementation of the global network ? good/bad

12b. What is your own role and involvement in RECPnet ?

XX What would need to happen for your Organization to feel more ownership of the RECPnet?

Give box for comments

13a. Did your Organization benefit from the RECPnet in building and/or expanding its capacity for service delivery? very much/not at all

13b. If yes, please elaborate

13c. If no, how could you have benefitted more from the RECPnet

XXa. Since Jan 2012, how many enterprises (in which sectors) are being serviced by your Organization?

XXb .What is the range and/or average size of impact of RECP implementation being achieved in these enterprises?

14a. With respect to the function of **Advocacy**: Did RECPnet achieve (more) recognition for the importance of RECP in your country? very much/not at all

14b. Please indicate the most important reasons:

15. How do you rate the **usability** of the *current* RECPnet's Knowledge Management System (KMS) high/low

16a. How do you rate the **relevance** of the information available online on the KMS? high/low

16b. How do you rate the **relevance** of other (**non-UNIDO**) information on RECP available online and offline? high/low

17. How were you involved in contributing content to the KMS?

18. What needs does your organization have which could be addressed by an improved KMS?

XX What would need to happen for your Organization to increase its contributions to the KMS?

Give box for comments

Section 4: Scaling up: WS 3 (Eco-Industrial Parks) and WS 4 (RECP Method and Tools)

19a. Was your Organization involved in activities in (one of) these Workstreams since Jan 2012? Yes/no

19b. If yes, please describe the projects in which you were involved in.

19c. If no, continue to the next section (Question 23)

20a. Do you have any report(s) available that document the implementation, results, and the possible impact of activities that have been undertaken in this domain? yes/no

20b. If yes, please indicate the names of these reports

21. How do you rate the implementation and results of these activities with regard to:

21a. **Efficiency** of the Project design, management, and resources to execute the envisaged activities and deliver the outputs and outcomes required for the target groups in your country? high/low

21b. **Effectiveness** of the Project to achieve the outputs and outcomes with good quality and as appropriate for the target group high/low

21c. **Impact** of the Project in environmental, social, and economic terms (for WS3) and ongoing activities by the target group high/low

21d. **Sustainability** of the Project results now or expected in the near future through sustained capacity, proven benefits for the target group and follow-ups perceived in your country as a result of the Project

22. Please summarize the main arguments for your ratings in Question 21a-d

Section 5: National Piloting at sector level: WS 5 (Industrial Waste Minimization for Low Carbon Production) and WS 6 (Innovative Solutions for Chemicals).

23 – 26 **SAME QUESTIONS AS SECTION 4, so Q 19-22, adapt numbering**

Section 6: RECP Financing: WS 7 Financing Instruments and WS 8 Innovative Business Models

27- 30 **SAME QUESTIONS AS SECTION 4, so Q 19 -22, adapt numbering**

Section 7: Success Stories and Failures in the RECP Program since January 2012

31. Please share with us any success stories in scaling-up and/or mainstreaming RECP achieved under the Program, specifying the timeframe for their implementation.

31a. In July 2015, you were asked by UNIDO to send success stories based on a standard *Experiences* format. Did you do that? Yes/no

31b. If no, please provide a short summary of a success story here

Section 8: Programming and Management & Monitoring

XX To what extent have the views, perceptions, and experiences of the target group (SMEs) been considered, addressed, and incorporated into the program design and addressed in program implementation?

4-point scale

Give box for comments

XX To what extent have the views, perceptions, and experiences of national stakeholders (government, business organizations, civil society) been considered, addressed, and incorporated into the program design and addressed in program implementation?

4-point scale

Give box for comments

XX To what extent have the knowledge, experiences, views, and capacities of the implementing partners (RECP service providers in beneficiary countries) been considered, addressed, and incorporated into the program design and addressed in program implementation?

4-point scale

Give box for comments

Section 9 – Recommendations and additional comments

xx. What recommendations do you have for UNIDO/UNEP improving the RECP Programme during the remaining implementation period (until end 2016)?

xx. What changes does your Organization need to undertake in order to optimise benefits during the remaining implementation period (until end 2016), and beyond?

xx. What recommendations do you have for the period following the completion of the current Programme, from 2017 onwards

xx. Do you have any additional comments or suggestions?

Thank you very much for your contribution to this survey. We know that you are very busy and we greatly appreciate your time and input.

All information that you have provided will be dealt with confidentially. The Evaluation Report will not reflect any individual responses. If there is any need or opportunity to include a specific quote, we will always ask for your permission to do so. Based on your responses, it is possible that we may contact you for clarification or elaboration.

8.6. Annex 6 – List of Survey Respondents

CEGESTI, Costa Rica

National Cleaner Production Centre, China

National Centre for Sustainable Production and Consumption, Romania

Bajío Cleaner Production Centre, Mexico

Cleaner Production Centre of Serbia

Turkish MoSIT DG for Productivity

Grupo GEA / CER Perú

STENUM GmgH, Austria

National Cleaner Production Centre , Russia

CNTL (NCPC Brazil)

National Cleaner Production Centre, Ghana

EMPRESS Czech Republic

Centre for Sustainable Industrial Development, Lithuania

Cleaner Production Centre, Uganda

CITET, Tunisia

Centre of Expertise and Cleaner Production, Russia

National Cleaner Production Centre, Zimbabwe

National Cleaner Production Centre, Vietnam

Centro Guatemalteco de Producción más Limpia, Guatemala

Gujarat Cleaner Production Centre, India

CMPP (Moroccan Cleaner Production Centre), Morocco

Centro Nal de Produccion Más Limpia y Tec Ambient, Colombia

Cleaner Production Centre of Nicaragua

CRECPI, Indonesia

Centre of Eco-Efficient and Social Responsibility, Perú

National Cleaner Production Network, Cuba

National Cleaner Production Centre, Rwanda

8.7. Annex 7 – Report from National Evaluation Consultant - China

China was regarded as one of the 13 priority countries for implementation of in-country pilot activities under the present programmatic funding. Under the present RECP Programme, to date, contributions have been made in 3 of the eight workstreams (WS3 Eco-Industrial Parks, WS4 RECP Methods and Tools, WS6 Industrial Waste Minimization).

Institutional Analysis of the CNCPC

The People's Republic of China established its National Cleaner Production Centre (CNCPC) within the Chinese Research Academy for Environmental Sciences (CRAES) in 1994 under the support of the UNIDO-UNEP CP Programme. During the period of 1995-1998, the CNCPC was supported by UNIDO and UNEP and since 1998, has become financially independent of these two institutions. Activities under the RECP Programme constitute a small proportion of the Centre's funding; nonetheless, their prestige and importance for the CNCPC is much more significant.

Embedded within CRAES, the CNCPC has a close and privileged relationship with the Ministry of Environmental Protection (MEP), as well as with the Ministry of Industry and Information Technology (MIIT) and the National Development and Reform Commission (NDRC), providing these actors with technical and policy advice on CP.

The CNCPC has 32 staff in 5 departments, including: 1) CP Policy and Regulatory Research Department; 2) CP Capacity Building Department; 3) CP Assessments and Consulting Department; 4) CP Technology Research and Development Department; 5) International Cooperation Department.

The RECP Programme has its main connection with the International Cooperation Department, which acts as the interface to engage the relevant parts of the CNCPC in activities that contribute to the various workstreams (discussed further below).

A brief institutional analysis was carried out using the structure of the UNIDO Primer. This included a self-assessment on the 5 specified dimensions, which was undertaken by a team of two CNCPC representatives. This self-assessment (using a scale of 0 to 100%) yielded the following results:

- 95 on Strategy
- 80 on Autonomy
- 70 on Operational Management
- 80 on Business
- 65 on Expertise

In elaborating their thoughts regarding these dimensions, which were guided by the best practices mentioned in the UNIDO Primer, the following highlights were seen as relevant.

Strategy

The CNCPC has a vision to be the leader of Cleaner Production for the whole of China. It has been pursuing this vision providing policy advice to the national and provincial governments (e.g. Ningxia and Guangxi), doing capacity-building, being a CP service provider (competency centre) as well as being a leader of CP centres,

thereby organising the largescale setting to jointly promote CP policies and practices (i.e. supporting the establishment of the China Cleaner Production Union).

A cornerstone of the CNCPC's strategy hinges on the use of a 7-phase CP assessment procedure that has been developed, which has 35 steps. This uniform approach has been widely adopted in China and is supported by a CP Manual that was developed by the CNCPC, which is the only guidebook for CP assessment of its kind in China. This Manual is further supported by sectoral-based guidelines and CP standards (in the form of a CP evaluation indicator system)

Although the China Cleaner Production Union was established in November 2013 with the CNCPC and 14 Chinese local cleaner production centres, the CNCPC has not yet garnered sufficient energy to really manage it and bring it forward in the envisaged direction of providing the relevant government departments, union members, and society at large with relevant CP information and services. To advance, the CNCPC has plotted a strategy to first identify and work with a set of focal provinces (out of the total of 30 provinces nation-wide) to consider their planning for the upcoming year and try to incorporate their planning into the CNCPC's own planning. The intention is to have more frequent contact with these focal provinces, including face-to-face meetings, in order to learn more about their needs and interests for services, which the CNCPC could then offer to them.

Autonomy

The CNCPC is government by a Board (which includes representation from the MEP), which offers guidance on both technical and scientific matters. As well, the President of CRAES supervises the work of the Centre and carries formal institutional responsibility for its performance. CNCPC is obliged to submit an annual performance report as well as its annual planning for the upcoming year. Bi-annual reports with overall planning are also demanded with the aim of showing the general direction of the Centre.

CRAES' President is highly respected and in charge of various institutes (e.g. air pollution) representing issues that are very important to the Chinese government. CNCPC's association with CRAES and its President give the Centre a tremendous amount of prestige.

The CNCPC has its own legal license to operate but finally, it is not independent financially from CRAES, with whom it shares accounting and HR management functions. CRAES deducts 20% from financial inflows in the form of management fees for providing these shared services. This also applies to projects being implemented for the RECP Programme. Operationally, this means that activities that are scoped and budgeted at international level effectively have only 80% of the budget available to carry out the project. This typically results in situations of being under-resourced, in which case, the CNCPC itself has to simply take the burden and ask people to work harder and work more.

Metaphor was used as a tool to draw out a more complex picture of the CNCPC in the eyes of its staff, which yielded the following description:

A lot of plants are blooming in CRAES; this is the CNCPC, we want to grow up. There's a lot of rain there. It can help us to grow up. But if the rain is too hard, that will push us down. It's a strange situation. We think that the CNCPC should

be now in a positive position, with a shining future, and we do have some policies to support that. But sometimes, due to other pressures, we can not grow up as we want. We have our own plan to grow up. Sometimes the rain is just a shower, so we can grow up better. But if it becomes a storm, we will be destroyed. We think that our Centre should be grown up. We need some more favourable surroundings in the environment

Operational Management

An organigram is in place and teams are in place to support the planned implementation of activities. From the capacity-side, there is a perception that the more experienced people within the Centre can provide valuable information but the less experienced staff do not have enough background to provide such feedback in a timely manner. Therefore, more often than not, it appears that just a few people are giving input while the others are just listening and not really participating in the discussions.

At present, a lot of projects are running in parallel and there seems to not be a lot of time to share information and lessons learned with each other.

In being linked to an academic institution, there is an evaluation standard in place. However, this has been seen as not so relevant for a service centre like CNCPC, which is attempting to remedy this situation by drafting a requirements evaluation standard that would apply just to the Centre. This is now under discussion.

Business

The CNCPC has covered various related CP fields for the past 20 years. There is a desire for the Centre to become more market-oriented. There is tremendous interest and openness to develop capacities to offer more services (e.g. value chain analysis, business model advice). Interest was also expressed to focus more deeply on one area and then extend and support this through research, which can draw funding to the Centre. With additional funding available, the CNCPC sees that it would be in a position to do more research and development in order to develop more tools and insights on policy, guidance for standards, as well as for technology.

Expertise

This discussion focussed on Knowledge Management. Respondents indicated that a knowledge management system has not really been established within the CNCPC, although there is a website which contains a superficial level of information

Knowledge management is carried out primarily in the form of face-to-face exchange. Extensive discussion takes place with colleagues but it is often difficult to grasp the overall picture.

Regarding its expertise in the area of capacity-building, the CNCPC has assembled all of the needed training materials (paper and electronic form). The standard procedure is for Project Managers to keep all documentation on file for a project and ensure that all information about the project is retained.

The following section details the findings regarding the contributions of the CNCPC to the various workstreams of the RECP Programme during the present period of implementation.

Contributions to WS 3 Eco-Industrial Parks

Survey & appraisal of the potential for replication of Resource Efficient and Cleaner Production in selected regions and sectors in China

Relevance

The project goal was found to be highly relevant to the thematic and priorities of WS 3: Eco-Industrial Parks.

A rapid appraisal of these three locations/sectors was undertaken to determine the potential scope and methodology and ascertain their feasibility including buy in from enterprises and government authorities. UNIDO will be in the position to support one or several complementary trials for scaling up and mainstreaming RECP in China. Three potential trials have been identified, respectively:

- 1) Zhenjiang (Jiangsu Province): Zhenjiang is an industrialized city on the Yangtze River, in the hinterland of Shanghai, with particular strengths in pulp and paper, chemical and allied, and solar energy industries. Most, yet not all, industries are located in the Zhenjiang Economic and Technological Development Zone (ZETDZ). The Governments of Switzerland and China have agreed to establish a Sino Swiss Eco-Industrial Park within the ZETDZ).
- 2) Guangxi Province: located in the sub-tropical south of China, Guangxi province is the centre of sugar and related industries in China. The sugar industry produces large volume by products; in particular, bagasse and molasses, which have good potential for further processing into bio-ethanol (suitable as a petrol additive) and soil conditioner/fertilizer, whilst simultaneously minimizing effluents.
- 3) Wei River Basin (Shaanxi Province): located in central China, the Wei river basin is home to concentrations of apple and ginger processing and pulp and paper industries, each of which use large volumes of water and energy and cause significant water pollution.

Effectiveness

Project assignment	Requirements	Current achievements
1. Prepare rapid appraisal reports on the potential for and status of the uptake of RECP in Zhenjiang City, the Guangxi sugar and allied industries and the Wei River	Compile the reports through document review and consultations of relevant government agencies and industrial stakeholders	<p>The preliminary appraisal reports were prepared as required through reviewing and consultation of the local planning and development commissions, and environmental protection bureaus and industry representatives:</p> <ul style="list-style-type: none"> • Summary of the present industrial structure (in terms of sectors, product outputs, number and size of plants, status of technology, etc.) and its key environment and resource conservation challenges (including energy, water, materials, waste, water and air pollution, etc.); • Mapping of relevant stakeholders (from business,

Basin.		government and other sectors) and their specific environmental and resource conservation mandates and projects; <ul style="list-style-type: none"> • Inventory and appraisal of past and ongoing RECP and related initiatives, in terms of organizations involved, environmental and economic benefits achieved and lessons learned.
2. Two 2-day international workshops/conferences	Organize the workshops/conferences on RECP and industrial ecology	Two workshops were organized in respectively Zhenjiang (in close consultation with the Zhenjiang Economic and Technological Development Authority) and Nanning (in close consultation with the Industrial Biotechnology Centre of the Guangxi Academy of Sciences) to raise awareness and understanding for RECP and industrial ecology among representatives of relevant government agencies and local industries, and validate the findings of the respective draft appraisal reports. CNCPC assisted the local counterparts with the organization of these workshops/conferences and facilitate and support their successful delivery, including preparation of resource materials and compilation of conference proceedings.

Efficiency

The activities were implemented with high efficiency. CNCPC undertook three field missions for stakeholders' consultations and data collection in each pilot sector/region during early 2013 and the draft appraisal reports were finished in March 2013.

Impact

Under the support of UNIDO, CNCPC and international experts, the present industrial structure, key environment and resource conservation challenges, relevant stakeholders and ongoing RECP and related initiatives were identified, which has provides strong baseline for the further CP implementation in the EIPs of Zhenjiang, Guangxi and Wei River Basin.

Innovation

A rapid appraisal method was employed innovatively to determine the potential scope and methodology and ascertain their feasibility on CP implementation in EIPs by focusing on the industrial symbiosis of the key industries, institutional settings on the resource use, facilities and policy support for clean production, and specific cleaner production activities.

Sustainability

Two CP promotion proposals were prepared by CNCPC, which will extend the outputs and achievements of this activity in the near future.

Lessons Learned & Potential Recommendations

Establishment of CP centres in the local EIP was supposed to build up and enhance the capacity for CP service delivery. Trainings are necessary for both the CP service

providers and enterprises, so as to raise awareness on RECP and also improve their technical skills in CP audits.

Documentation and review national experiences with development, implementation and management of eco-industrial parks in China

Relevance

The project goal is found to be highly relevant to the thematic and priorities of WS 3- Eco-Industrial Parks. CNCPC is requested to undertake under the guidance and direction of the UNIDO Project Manager and the separately contracted international lead expert a review of policies and practices for eco-industrial parks in China. There potential trials have been identified, respectively:

- 1) Zhenjiang New Energy Industrial Park (ZNEIP) is located in Zhenjiang Economic and Technology Development Zone (ZETDZ, alias Zhenjiang New Area) of Jiangsu Province. Zhenjiang is in the south of Jiangsu Province and next to Shanghai, with the total area of 3847 km² and population of 3 million.
- 2) Shanghai Chemical Industry Economic and Technology Development Park (SCIP) is located in the south of Shanghai City to the north of Hangzhou Bay of the East China Sea. Shanghai Chemical Industrial Economic and Technology Development Park (SCIP) is a National Economic and Technology Development Park; it became a National Demonstrative Eco-industrial Park in 2012.
- 3) Guangxi Xianggui Sugar Eco-Industrial Park (Guangxi Xianggui Sugar EIP) was invested in independently and constructed by Guangxi Xianggui Sugar Group Co., Ltd. in 2007. The park is planning to take Guangxi Xianggui Sugar Co., Ltd. as the foundation to build the sugar circular economy industrial zone.

Effectiveness

Project assignment	Requirements	Current achievements
1. Policy Context	Document and summarize national, sectoral and/or regional government and business initiatives (policies, regulations, demonstration projects, incentive schemes, etc.) aimed at planning, development, implementation and/or management of eco-industrial parks and/or other – collective - environmental initiatives at the scale of industrial (development)	<p>The policy context was documented in concise background reports.</p> <ul style="list-style-type: none"> • Zhenjiang New Energy Industrial Park Administrative Committee (ZNEIPAC) is responsible for the daily administrative management of ZNEIP, which is under the leadership of Zhenjiang Economic and Technology Development Zone Administrative Committee (ZETDZAC). ZNEIPAC was established in July 2013 formally. The primarily functions include innovation and development, attracting industrial projects and investment, providing services to the enterprises in the park and their management etc. The Administrative Committee has 3 departments, i.e. Business Department, Economic Development Department and Comprehensive Department • SCIP is a fully stated-owned industrial park, and SCIP Administration Committee is the administrative body of SCIP, which is a

	zones	<p>governmental agency of Shanghai Municipal Government, responsible for the daily administration of SCIP. It has 5 departments, including safety and production supervision, planning and financing, land planning and construction (with an office for environmental protection), economic development and comprehensive secretary affairs office (with an office for human resources).</p> <ul style="list-style-type: none"> Guangxi Xianggui Sugar EIP The park's ownership is private. The park's organizer is Guangxi Xianggui Sugar Group Co., Ltd. and these enterprises in the park are the equity shareholders. Guangxi Xianggui Sugar Co., Ltd. established "The Logistics Service and Management Centre of the Park" to manage all the related affairs in the park, including General Affairs Office, the Park Infrastructure Department, Environmental Protection Department, the Power Department and Logistics Department. Financing channels mainly include the business profit from reproduction capital, commercial bank loans, private investment fund and a small amount of government subsidies.
2. Case Studies	<p>Perform EIP case studies using a common framework (as provided by the international lead expert), document and review 3 examples of eco-industrial parks in China (respectively: Shanghai Chemical Industry Park, Guangxi Xianggui Circular Economy Park for Sugar and Allied Industries and Zhenjiang Photo Voltaic Industry Park).</p>	<p>The 3 case studies were written and uploaded as living documents in RECPnet's KMS</p> <ul style="list-style-type: none"> ZNEIP committed to resource efficiency and cleaner production, not only focusing on the close ties between 5 enterprises - CECEP on Clean Energy, SiC on Circular Utilization, Naisi on Technical Innovation, Jianqiao on New Materials and East Bio-engineering on bio-medicine; but also focusing on the formation of a high-quality eco-industrial chain. In the process of eco-industrial construction, with the concept of conservation, efficiency and gathering, ZNEIP not only achieved the common development of enterprises, but also achieved win-win between enterprise and park. SCIP has formed a highly connected eco-industrial system. Taking ethylene series products and chlorine series products as the upstream products and the fine chemical products as the downstream products in the whole chemical production chain, more than 80% chemical products have been linked within the park. The gross industrial output value of this chemical products chain occupies more than 80% of that in the whole park. The integration of infrastructures, transportation, central treatment of wastes and public services to the enterprises in the park provides highly sufficient utilization of resources and cleaner production in SCIP.

		<ul style="list-style-type: none"> • Guangxi Xianggui Sugar EIP designed all projects in close relations along the upstream to the downstream of cane sugar industry chain. The park initially formed virtuous cycles as follows: <ul style="list-style-type: none"> - Sugar cane - sugar - wastewater - agricultural irrigation water - sugar cane - Sugar cane - sugar - molasses - active dry yeast, high nucleotide yeast extract - wastewater, waste residue and biogas - production power supply, heat supply, steam supply - Sugar and yeast production's wastewater, waste residue, filter mud microorganism organic fertilizer - sugar cane - Sugar cane - sugar – bagasse- biomass fuel, pulp, paper products, environmentally-friendly paper packaging.
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Efficiency

The activities were implemented with high efficiency. The CNCPC is required to avail one of its senior staff as the lead expert for service delivery under the present contract, with an expected workload of approximately 20-25% of the CNCPC's total. CNCPC also present its findings during the 2013 global RECP networking conference.

Impact

Survey & appraisal of the potential for replication of Resource Efficient and Cleaner Production and preliminary evaluation was implemented in Zhenjiang Economic and Technological Development Zone as the new energy development, two reports were finished and one proposal for the was prepared by UNIDO. The proposal can meet the actual situation and requirements of Zhenjiang Economic and Technological Development Zone.

Innovation

Comprehensive balance was considered innovatively during the site selection, covering traditional industries (chemical EIP), new industries (new energy) and agro-industry chain (Sugar industry) and highlighting the characteristics and features of various types of eco-industrial parks.

Sustainability

One proposal for the Zhenjiang Economic and Technological Development Zone was prepared by UNIDO, which will extend the outputs and achievements of this activity in the near future.

Lessons Learned & Potential Recommendations

Actual approval and start-up of the project prepared, since it has delayed more than one year. UNIDO could do more local or enterprise-based CP activates to promote the CP. UNIDO and CNCPC should consider more about the combination of CP with the current needs of environmental protection in China. Now, the air, water and soil pollution prevention is the key tasks for the movement agencies. So, it is a quite important point to demonstrate the effectiveness of CP in the pollution control and environmental remediation.

Contribution to WS4 Methods and Tools:

Review and assessment of 2003 China Cleaner Production Promotion Law (CCPPL)

This project aimed at conducting a comprehensive review and assessment of the effectiveness, efficiency and impact of the CCPPL-2003, including its associated provisions and institutions for implementation, monitoring and reporting, and taking into consideration related policy initiatives. The review and assessment is to be conducted in a consultative manner with contributions from the related governmental bodies, associations and companies, such as MEP and relevant municipal and provincial Environmental Protection Bureaus (EPBs), China Cleaner Production Union (CCPU) and some CP consulting service providers.

Through research on a large number of relevant literatures, policies and regulations, as well as communication, survey, and discussion with national and local administrative departments and enterprises, the project team has initially completed some results, including introduction of China's RECP management system, introduction of China Cleaner Production Promotion Law, introduction and analysis of implementation of CCPPL at the national, regional and enterprise level.

Relevance

The project goal is found to be highly relevant to the thematic and priorities of WS 4.

The CCPPL came into effect on 1 January 2003 and is intended to impel enterprises to undertake a Cleaner Production Audit (CPA). The CCPPL is performed under the responsibility of the Ministry of Environmental Protection (MEP). A key feature under the CCPPL is mandatory CPA. Local and provincial Environmental Protection Bureaus (EPBs) can be under this provision mandate that enterprises with a very high environmental impact undertake a CPA and implement the resulting CP options that could reasonably be considered technically and economically feasible. At least 8,000 mandatory CPAs have been initiated since 2008 when the provisions for mandatory CPA under the CCPPL came into effect.

It is commonly recognized that innovative policies and their associated instruments and administrative and related provisions provide one promising avenue for scaling RECP up to larger numbers of enterprises and mainstreaming RECP in business strategies. Such should complement efforts to streamline and customize support models and assessment methods, and enabling access to appropriate information, technology and finance, either at the level of individual enterprises or through collective multi-enterprise approaches, in clusters, industrial parks and/or supply chains.

Effectiveness

The project has essentially achieved the objective "to conduct a comprehensive review and assessment of the effectiveness, efficiency and impact of the CCPPL-2003" and all the project assignments with high effectiveness.

Project assignment	Requirements	Current achievements
Documentation of the CCPPL	To provide a summary of the	The project team with 8 members (including YIN Jie, BAI Yanying, SONG Danna, WU Hao, YUAN Yin,

	<p>present policy landscape for CP and related initiatives, with a particular focus on the role of the CCPPL within the government's 'RECP management system' in (industrial) enterprises.</p>	<p>GUO Yajing, LI Zixiu and WANG Xiaobao) in CNCPC identified the key initiatives of the most relevant ministries and their associated and/or subordinate institutions, respectively: Ministry of Environmental Protection (MEP); Ministry of Industry and Information Technology (MIIT) and National Development and Reform Commission (NDRC), reviewed the key government policies and strategies related to CP and RECP in Chinese industries, summarized the aims, objectives, instruments, administrative provisions and institutional arrangements for implementation of the CCPPL.</p> <p>Laws, regulations, policies, strategies and instruments for promoting RECP in China like CP, Circular Economy (CE) and Energy Saving & Renewable Energy, as well as published literatures, have been collected and analyzed. Some China's central governmental departments such as NDRC, MEP and MIIT have been consulted to verify the results from the previous analysis and their duties in promoting RECP in China. Take into account these, an overall landscape of RECP management system in China has been initially drafted.</p> <p>The CCPPL and relevant publications and literatures on the implementation of CCPPL at national level have been collected and analysed so as to specify the aims, objectives, instruments, administrative provisions and institutional arrangements for implementation of the CCPPL.</p> <p>The situation of CCPPL implementation was evaluated in two levels: the central level and local level (in Hebei and Shanghai). Hebei Province Cleaner Production Centre and Shanghai Cleaner Production Centre were also invited to assist with the surveys of specific achievements and the detailed assessment of implementation status and benefits were surveyed in 29 enterprises that had been mandated to undertake Cleaner Production Audit (CPA), in consecutive years (respectively, 2008, 2009, 2010, 2011, and 2012), five sample enterprises per year.</p>
<p>2. Assessment of the CCPPL</p>	<p>To assess the effectiveness, efficiency and impact of the CCPL with a view to the scaling up of CP (both in terms of numbers of enterprises</p>	<p>The project team evaluated the effectiveness of CCPPL based on data compiled at macro-level (national statistics on implementation of the CCPPL), meso-level (specific achievements in Hebei and Shanghai Provinces) and micro-level (detailed assessment of implementation status and benefits in some 25 enterprises that had been mandated to undertake CPA, in consecutive years (respectively, 2008, 2009, 2010, 2011 and 2012) five sample</p>

	undertaking and implementing CP as well as in terms of enterprise level environmental and resource conservation benefits achieved) and the mainstreaming of CP (in terms of embedding CP in mandated industries and their continued environment and related initiatives after completion of mandatory CPA).	enterprises per year). Site visiting, questionnaire, literatures research, telephone/e-mail communications, etc.were designed and implemented to collect data on implementation of CCPPL at the regional level, in particular Hebei and Shanghai at the enterprise level. With the assistance of Hebei Province Cleaner Production Centre and Shanghai Cleaner Production Centre, the project team selected 29 enterprises to carry out surveys, including 14 enterprises in Hebei and 15 enterprises in Shanghai. The project team sent out the survey questionnaire to these sample enterprises, collected and analyzed feedbacks from the enterprises. The project team organized and paid on-site visit to Hebei Province and Shanghai City respectively as well and organized two workshops with local related stakeholders, including the local EPBs, consulting service providers and the surveyed companies. The project team introduced the first results at regional and enterprise level. Meanwhile, the participants were consulted to verify the data and information collected.
3.Improvement of the CCPPL	To identify, evaluate and promote specific suggestions and recommendations for improving the effectiveness, efficiency and impact of the CCPPL	Through research on a large number of relevant literatures, policies and regulations, as well as communication, survey, and discussion with national and local administrative departments and enterprises, the project team has initially completed some results and make recommendations on the improvement of the CCPPL, considering CPA requirements; administrative procedures and institutional arrangements; training and capacity building; monitoring, reporting and knowledge management, including: <ul style="list-style-type: none"> • introduction of China’s RECP management system • introduction of China Cleaner Production Promotion Law • introduction and analysis of implementation of CCPPL at the national, regional and enterprise level.

Efficiency

The project assignment was expected to be finished by the end of July 2015 at a cost of Euro 50,000.

During the fact-finding mission, it was found that all the work had been finished as required and the report had been finished in the Chinese version.

Impact

The project impact is significantly positive. All the interviewed people during the fact finding mission in the CNCPC and the telephone interview think it is necessary and meaningful to organize the CCPPL review and assessment project.

Local CP centres thought that this project were giving an opportunity to summarize the experiences and lessons from the implementation of old CCPPL (2003-2013) and new CCPPL (2013-now), and the project could improve the local CP centres' understanding of the purpose of CCPPL and principles of CP. Also, the local CP centre highly recognizes the role of CNCPC in the aspects of guidance on the provincial CP centres from the national level, technical training on CP methodology and resource and experience sharing.

Innovation

For the first time this project conducted a comprehensive research, demonstration and evaluation the effect of CCPPL from the macro, meso and micro dimensions. The CCPPL legal system was evaluated from the full range of policy framework, management system, organization, technical support and audit effects.

Lessons Learned & Potential Recommendations

UNIDO could cooperate more with CNCPC on the CP promotion, since CP is the key institute to make CP policy study.

The cooperation with CNCPC will help them to achieve their objects in a more solid way.

Contribution to WS 5 Industrial Waste Minimization

Industrial Waste Minimization in Cassava Starch industry in Guanxi Province

The aim of the Project on Industrial Waste Minimization for Low Carbon Production is to achieve step-reductions in the generation of industrial waste and by-products, including organic materials, as well as to foster their valorisation. This serves the triple purpose of improving the local environment (less waste and waste water), mitigation of greenhouse gas (GHG) emissions (reduced energy consumption and reduced biogas generation from waste) and economic benefits (resource productivity and possibly better product quality). This could require the introduction of new Environmentally Sound Technology (either as processing technology or for recovery of materials and/or energy), or might be achieved by improvements in management and supply chains or development of by-product businesses.

Relevance

The project goal is found to be highly relevant to the thematic and priorities of WS 5-Industrial Waste Minimization. The expected outputs at the Project level are: Innovative zero (or low) organic waste and by-products solutions developed and demonstrated for selected waste-incentive sectors; Bio-energy technologies with good applicability for industrial residues promoted; and Opportunities for low carbon/waste technology applications in participating countries identified, developed and promoted for co-funding from various sources.

The serious environmental issue caused by the cassava industry in Guangxi Province was selected as the target industry, when UNIDO just finished its first phase projects in Industrial waste minimization in agriculture and were just looking for the proper agriculture-related industries to initiate the projects in second phase. The cassava industry in Guangxi Province has great potential to improve their technologies and management to control its environmental pollution. Meanwhile, the involvement and support of UNIDO in the cassava industry in Guangxi would be quite helpful and relevant.

Effectiveness

Project assignment	Requirements	Current achievements
1. Cassava sector Assessments	<p>To understand the current situation and development potential of cassava industry in China.</p> <p>To understand and evaluate the typical production process of cassava starch (native starch) industry (including resource, water and energy consumption, product quality, cost component, environmental effect etc.).</p> <p>To analyze the economic and environmental benefits of different process, especially to compare the effects of CPDP with the traditional process.</p>	<p>Current situation and development of cassava planting and industry in China were investigated by the experts of CNCPC, UNIDO, SOFIES, and Thailand through fact finding missions and expert group meetings:</p> <ul style="list-style-type: none"> • Cassava planting area in China is about 1.07 million acres. And the total output of cassava roots is 8.5-8.8 million tons. Guangxi province accounts for about 60% of the planting area and cassava output. • China is the largest global buyer of cassava starch, importing 1.4 million tons, approximately 50% of global imports. Cassava starch is extracted from cassava, widely used in food and non-food industries, such as drinking, candy, papermaking industries etc. • Guangxi province is the largest production base of native starch in China, where there are 76 cassava starch enterprises with an annual output : only 0.52 million tons; • China's cassava starch industry is facing with reform and modernization and the pressure is mainly from the low price pressure of Starch from South Asia.
2. Identification of CP opportunity and business model by Technical Guidance Documents	<p>To help develop a business mode based on the CPDP, and help develop the Technical Guidance Document.</p> <p>To identify promising advanced RECP measures and support their implementation.</p> <p>To carry out capacity building and awareness rising for the native starch producers through training and meetings.</p>	<p>8 cassava starch enterprises were evaluated in the pre-assessment: Guangxi State Farms Mingyang Biochemical Group, INC. (<u>Nanning City</u>), Huangxing Starch Chemical Co., Ltd. (<u>Wuming County</u>), Jiulong Starch Co., Ltd. (<u>Laibin City</u>), Tongzheng Starch Factory (<u>Fusui County</u>), Guangxi Anning Starch Co., Ltd. (<u>Wuming County</u>), Jinyuan Starch Co., Ltd. (<u>Longan County</u>), Jirui Starch Co.Ltd. (<u>Wuming County</u>) and Guangxi Honghao Starch Co., Ltd. (<u>Wuming County</u>).</p> <p>The Main problems in traditional production process were identified:</p>

	<p>To establish an advanced RECP process for cassava native starch production.</p>	<ul style="list-style-type: none"> • High COD generation • Huge consumption of fresh water • Less-developed techniques and equipment <p>A new cassava starch process based on the principle of CP was proposed, which includes: Countercurrent washing, hammer crushing, rasper crushing, horizontal centrifugal screening, 12-stage hydrocyclone, dewatering, negative drying, product and residual post-treatment. 4 CP options were proposed with the payback periods of 1-1.15 years.</p> <p>The CP demonstration plant with an annual production capacity of 20,000t native starch has been established in 2013. The process increased economic benefits, reduced waste generation and solved serious water pollution, which is deserved a promotion and wide use in the whole cassava starch industry.</p>
<p>3. Recommendation on the Advanced RECP measures and improvement of cassava industry</p>	<p>To provide recommendations to the producers and local governments, promoting the development of the cassava industry in China.</p>	<p>Further recommendations and the plan on next step were proposed:</p> <p>(1) The starch producers should actively use CP technologies and improve the management level to increase competitiveness in the global market. Cassava starch producers of China are facing increasingly serious competition from the global market (low import price of cassava starch etc.).</p> <p>(2) The government should provide greater support for the native starch producers to carry out the CP transformation. They could also help establish a better demonstration, and organize meetings to make the factory owners know more domestic and global information about the industry.</p> <p>(3) UNIDO should participate more in the application and popularization of the CP process. Actually, many cassava starch factories in Southeast Asian and African countries use similar technologies and equipment like China to produce starch.</p>

Efficiency

The project was jointly carried out by China NCPC and SOFIES in Switzerland. Now the project has been completed with high efficiency and the draft final report of the results has been finished. Moreover, the contractor CNCPC was expected to leverage co-financing for these proposed activities to the tune of 30% of the total budget.

Impact

The cassava starch plant upgraded through CP measures has drawn great attention. The CP demonstration and its experience in Guangxi were reported in "China Environment News" (Feb. 13, 2014).

The concept of CP widely accepted through the project implementation and the life-cycle methodology widely accepted for pollution control through the efficient resource utilization.

The value of CP widely recognized by the local enterprises through the actual implementation of the cassava based starch production industries.

A provincial conference was planned at the end of this month to promote the Green development of cassava industries and the action plan will be made at the conference.

Innovation

Cassava starch demonstration project developed innovative clean production technologies and equipment, improved the starch extraction rate (from 80% to 90%), reduced fresh water consumption to 12m³ wastewater/tonne starch. The starch product achieves a significantly improved quality, much better than the existing gifted class product standards to the Premium level, which can broaden the product application market and improve the economic efficiency of enterprises.

New industry assessment methods were employed, which covers different typical enterprises based on the level of technical equipment, size, position, etc. and could help to know in the whole that Guangxi cassava starch industry in the aspect of clean production situation, technology development and other insight.

New enterprise valuation methods were employed, which relies not only on the data collection, but also the field visiting, testing and monitoring allows evaluators to know the actual production situation and problems in the enterprises, have a more in-depth understanding and make better Cleaner Production Solutions.

An innovative business model was created in this project. The cassava starch cleaner production demonstration facility was designed by the CNCPC, constructed by the enterprises and funded by corporate funds, loans, grants and other relevant national common constitution. Through the close cooperation of research institutes and enterprises, the project developed and ran a new CP cassava starch production process in China, which laid a good foundation and provided a reference for the upgrading of other traditional industries.

Sustainability

Future prospects of cassava industry in Guangxi were discussed during the project period. Further CP improvement in Anning Starch plant through the improvement of housekeeping to have a better CP performance was proposed. Furthermore, other CP measures were propose the promote the waste minimization in the cassava starch

industries, including: heat usage of co-generation of heat and electricity, process optimization for cassava starch, fertilizer production with wastewater from cassava industry and hold an international expert workshop to improve the design.

Lessons Learned & Potential Recommendations

This UNIDO project got high level concerns by the local government and high recognition and acceptance of a new concept of CP and international experiences by the local stakeholders.

Experience introduction in the Green development, especially the high level development.

Technology support for local industry upgrading was expected by the local governments.

Practical experiences in China can also drive the development and the improvement of cassava industry in Southeast Asian and African countries and could potentially help solve the food security problem and alleviate the food shortage in Africa.

8.8. Annex 8 – Report from National Evaluation Consultant - Egypt

The Egyptian National Cleaner Production Centre (ENCPC) contributed to 4 of the 8 workstreams of the global RECP Programme, including: WS1: RECPnet, WS 3: Eco-Industrial Parks, WS 6 Innovative Chemical Solutions, and WS 8 Innovative Business Models.

Based on the interviews and discussions carried out during the country-level fact-finding, it was apparent that stakeholders on both the local UNIDO side as well as amongst the local SECO Focal Point had limited information about the RECP Programme. The points of view collected from both of these sides pointed to the fact that the RCEP program has been centrally managed and operationalized. This degree of centralization is perceived to have hindered the ability of these representatives and to follow-up and provide support if needed at any stage of implementation.

Institutional Analysis of the ENCPC

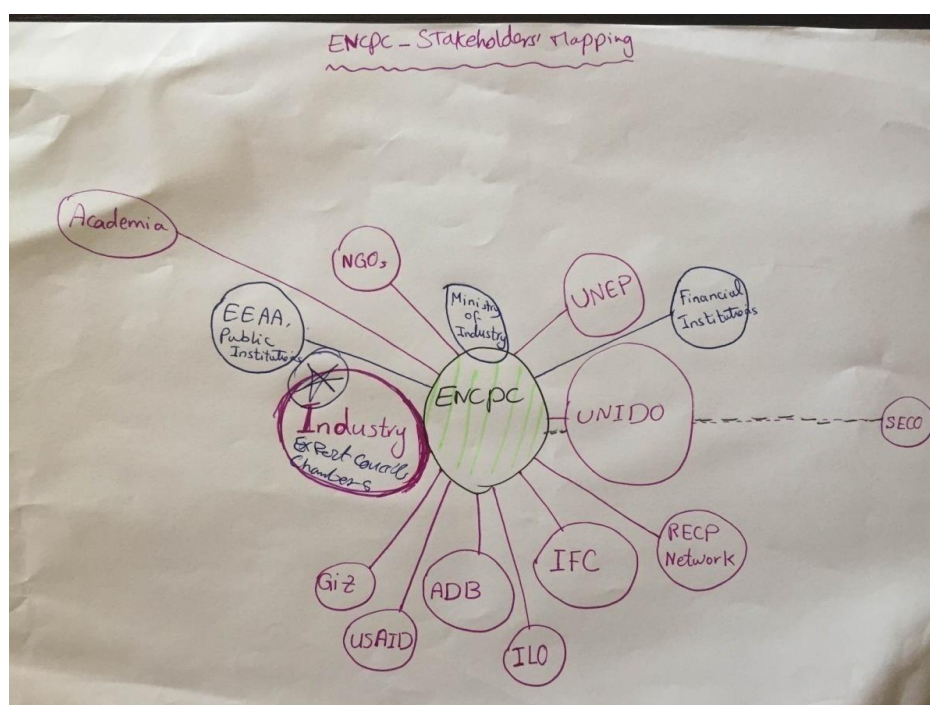
The fact finding mission explored issues such as how the institution is functioning, relations with partners, and views regarding their effectiveness, autonomy, and business capacities. This was achieved through using three main tools:

- Stakeholders mapping
- Metaphor
- Spider web

a) The ENCPC stakeholder mapping.

The drawing below was done by the ENCPC team. The instructions given to them was simply to draw the ENCPC in the centre of the paper and then draw circles for other stakeholders and drop lines to connect their circle to that of the others.

The picture below gives an indication regarding priority and relationship strength and distance (near or far) that connects the Centre with the different stakeholders with whom they are dealing.



According to the above picture, industry is the primary stakeholder for the ENCPC. This was reinforced through discussions with the team which underlined the idea that that industry is their main target and stakeholder. On the other hand, the relationship between the ENCPC and the local SECO structure is relatively weak; almost no clear connection exists. The ENCPC deals with SECO only within formal occasions. Alternatively, they rely on the connection with UNIDO when it comes to the work of the RECP Programme.

b) Metaphors

The team was asked (individually) to draw a picture that represents his/her vision of the ENCPC. The descriptions that were collected offer very useful insights and perspectives regarding the ENCPC's current institutional identity and anchoring. Here is a sampling of what was heard:

"I imagine that demand in Egypt is like a mountain and we climbing the mountain. We are in the middle. We already achieved a lot, but there is a lot more".

"There are 3 sides: ENCPC, stakeholders, industry. There is an intersection that is small. So we face a lot of problems when we are dealing with industry, with stakeholders. But in the future, I hope that the intersection could be bigger. It is small because there is a conflict between different stakeholders; there are a lot of procedures. Industry's relationship with government is not very good, there is low trust. To make the intersection bigger, we have to work more with the stakeholders to make thoughts between stakeholders and industry bigger. We have to avoid the misunderstandings between stakeholders and industry. Many stakeholders could help industry but they don't know".

I see my Centre in this time more or less engaged with industry, trying to help. There are 2 hands. Our hand is more with industry, to try to help them as much as we can. And they see the Centre as more or less growing to help them. I hope this will continue for the future."



c) Spider web (see later in this report attached to the institutional analysis factors).

ENCPC Set-up and Organizational Structure

The Egypt National Cleaner Production Centre (ENCPC) was established in 2005 as a service provider for Egyptian Industry by the Ministry of Industry and Trade (MoIT) in close cooperation with UNIDO as a part UNIDO/UNEP global network of Centres/NCPPs (51 centres) and as part of the Egyptian Industrial Council for Technology and Innovation, with support from the governments of Switzerland, Austria, and Egypt.

The ENCPC belongs to the MoTI and has been established as a Centre of Excellence

with a Ministerial Decree, with a Steering Committee. The Centre is regarded as a public organization with an international dimension. The Centre is allowed to cooperate with international partners and the private sector; but officially and legally, it is located within the MOTI and follows all governmental procedures, routines, and contractual steps. For more information, refer to the following table (ENCPC Legal Status and Shareholders).

ENCPC Legal Status and Shareholders

	Establishment Phase	First 2-3 years of Operation	Following Operations
Ownership	Governmental	Governmental	Governmental
Strategic Management	Board of trustees (FEI, Exporters, Experts & Ministry)	Board of trustees (FEI, Exporters, Experts & Ministry)	Ministry of Industry, Trade, & SMEs
Technical Management	Foreign Technical Partner	Management contract, Foreign technical partner + local 2nd Tier	Management contract for local staff
Legal Status	Ministerial Decree	Lease contract	Governmental organization

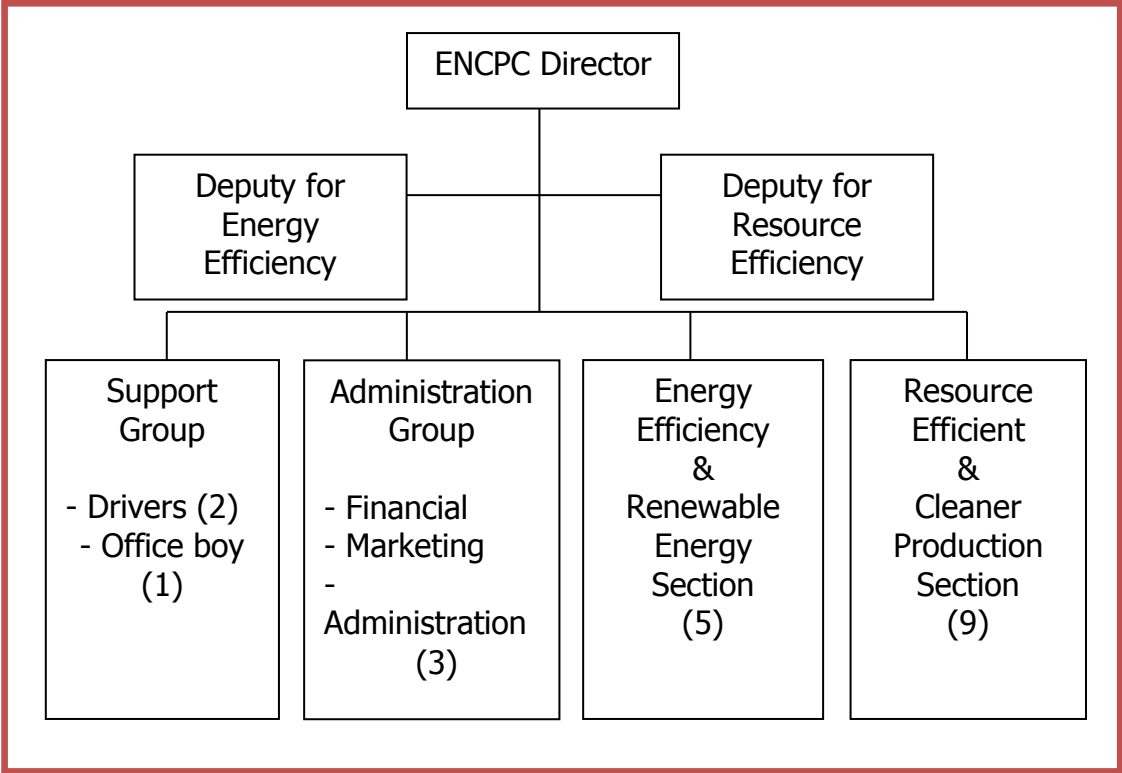
The ENCPC's mission is to act as a vehicle for enhancing the productivity and competitiveness of Egyptian industry by promoting the transfer of clean and innovative technologies and resource efficient and cleaner production (RECP) methods, tools, and practices. The overall aim of the Centre, as highlighted by its management, is to create a national Centre of Excellence for RECP and the promotion of green industry in Egypt. The ENCPC is viewed by most of those interviewed as a place that helps Egyptian industry to raise its competitiveness and productivity by adopting and applying RECP tools, practices and through the transfer of innovative technologies.

The Centre is one of 13 technology centres established in Egypt by the MoTI; within this group, it is characterized as a cross-cutting centre. In general, it cooperates with the other centres.

ENCPC services include:

- Resource efficient and cleaner production (RECP)
- Energy efficiency methodologies and applications of new and renewable energy in industry
- Sound management of industrial chemicals
- Industrial waste management
- Transfer, localization, and adoption of innovative environmentally-friendly technology
- Supporting business-environment friendly entrepreneurship (energy, waste, water)
- Transfer of knowledge and expertise and building the capacity for the Egyptian manpower in the industry

As shown below, the ENCPC has a relatively flat organizational structure. It was understood that the team does not react according to the hierarchy or according to tight/limited job descriptions. Rather, they act according to the work needed and time availability of each of them. They work with passion and believe their competence in the market is very high.

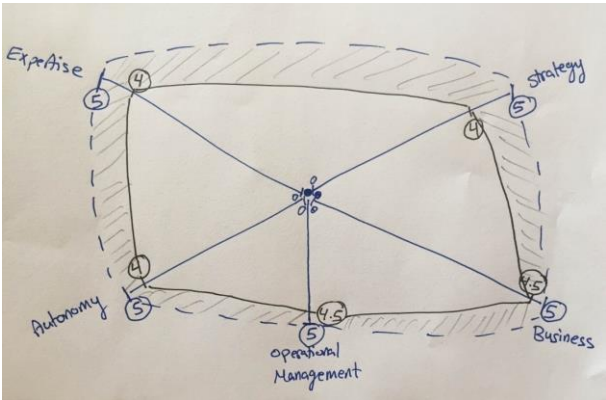


Institutional Assessment Factors

A brief institutional analysis was carried out using the structure of the UNIDO Primer, which considers 5 dimensions.

On a scale of 1 (low) to 5 (fully-achieved), the following are the results of the self-assessment carried out as part of the discussions:

- 4 on Strategy
- 4 on Expertise
- 4 on Autonomy
- 4.5 on Operational Management
- 4.5 on Business



The shaded area in the “Spider Web” below indicates the areas where further development is needed.

Strategy

ENCPC is governed by a Steering Committee composed primarily of members and representatives from the private sector. The main role played by the Steering Committee relates to the formulation of the Centre's Business Plan and deciding on its services.

One of the findings on the strategy side is that the future scaling-up of the Centre will require more financial independence for the ENCPC. Currently the Centre's management does not have the flexibility to deal with budgets. This is an ongoing challenge to manage.

Strategically, the cooperation with UNIDO has positively impacted the work of the ENCPC. The ENCPC staff learned the UNIDO system for contracting and learned from their experience, which added to their ability to think and act more efficiently. Additionally, it is understood that the team of the ENCPC has been able to utilize available resources to achieve their work goals with respect to the RECP Programme.

Autonomy

The ENCPC has the benefit of being autonomous, to some extent, although it is supervised and monitored by the MoTI. One indicator of autonomy is the good space given to the Centre to support the industrial sectors in Egypt to cope with the EU's REACH requirements. The Centre has had the lead in this regard; this has been articulated by the Centre as well as the MoTI. This also indicates that there is a real need and that funds have been secured for this support.

Another indicator regarding the autonomy dimension is the cooperation between the ENCPC and several governmental and non-governmental entities since its establishment in 2005, including governmental bodies which are pivotal in the realm of cleaner production, i.e. the Ministry of State for Environmental Affairs and the Egyptian Environmental Affairs Agency (MSEA/EEAA). The ENCPC is seen as a trusted partner by the MSEA since long time. The cooperation between ENCPC and MSEA started in 2007. ENCPC was hired by MSEA as a consultant for EPAP projects, using World Bank funding. It has been understood that cooperation with the ENCPC has been successful to a great extent and for some governmental actors, this model of cooperation is even considered new to the structure of the Egyptian government.

Usually the governmental structures, and routine; in addition to lack of expertise hinders the process of having a private entity, such as the ENCPC, to bring the technology, the experts and to develop a good quality projects. Although from a technical point of view, the Centre has some autonomy as shown above; however when it comes to control over resources and procedures, the situation showed little autonomy of the ENCPC. To back this argument, for the Centre to receive any funds, permission and then formal signatures and approvals should be taken first from the MOIT. Since the revolution in 2011, all procedures and logistical steps and regulations have increased, especially when it comes to cooperating with international organizations. However, some adaptation has occurred by time and the ENCPC team is more able to deal with such procedures now than before.

The following incident, narrated by the ENCPC team, shows the level of autonomy given to the Centre. For the ENCPC to get 8'000 Euro from UNIDO as funding to implement the following tasks: 1) investigate the policies that support eco-industrial parks in the country, if it is there, get it; 2) identify whether there are parks that are currently functioning in this way.

First the team had to write the proposal for UNIDO for how we will do it, with the timeframe and dates all the way up to the final report. They were not allowed to change the format; all 13 countries had to use the format provided by SOFIES.

In such cooperation, 5 people were involved from the ENCPC. The director was overseeing the entire project and supervising the work of the 5 staff members. In addition, the ENCPC tend to have an operational focal point for each project.

Based on the above incidence and arguments provided earlier in this report through the fact finding mission, the ENCPC team request financial independence from the Ministry of Trade and industry and smooth hiring procedures for staff. The team even regards this as a dream to achieve in future.

Operational Management

In terms of operational management, the ENCPC team believes that they score very high in this. The director backed this score by referring to: The ability of the team to design their own working plan, set time frame for implementation; and create indicators for the success/progress of the different projects. The team was able over the past years to achieve the highest levels of efficiency possible within their organization.

Operations management is concerned with converting materials and labor into goods and services as efficiently as possible to maximize the profit of an organization.

Operations management teams design the method of conversion of inputs (materials, labor, proprietary information, etc.) into outputs (goods, services, value-added products, etc.) that is most beneficial to the organization. Operations management teams attempt to balance costs with revenue to achieve the highest net operating profit possible.

The ENCPC leadership is responsible on overseeing, adjusting, and controlling the operations of the Centre; in addition to ensuring that the implementation of the projects is efficient in terms of using available resources, and effective in terms of meeting the project objectives and satisfactory implementing the activities.

The Centre has 22 staff including 2 drivers and 2 office boys and 2 admin/financial personnel. Among the 22 staff members, the director has 2 deputies. When they plan to write a new proposal, all technical staff gather and they split the workload over them. This process is like others always participatory. The director gives his inputs and after working on the proposal and discussing the details, decisions are made.

According to the structure of the ENCPC, each one of the team has his/her job description that they follow. Having a job description for staff is not a common practice in Governmental organizations; however the ENCPC leadership is keen to follow this pattern taken from other donors and international organizations. In the past 3 years, number of staff is not enough to handle the workload and thus available staff has been over-stretched.

Expertise

Referring to the spider web presented earlier, the ENCPC team scored 4 out of 5 in this factor “*expertise*”. The ENCPC staff is regarded as the core of the Centre where many of the partners and the director himself consider them as a main factor of the Centre’s success. The expertise of the Centre assisted in the achievements they realized throughout the past years. The Centre hires devoted hard workers and technically competent staff and consultants as well. The majority of ENCPC stakeholders and partners agreed on the high quality of the ENCPC team. They are well-skilled, young, active and have high spirit to induce real changes to industry in Egypt.

As for the turn-over, it is not that high in the Centre, only 3 employees left in the last 5 years and usually they go for better opportunities in international and regional organizations or to study abroad.

Building and investing in the ENCPC team of experts has been an ongoing task managed by the Centre leadership that always goes through negotiations with the MOTI to add a percentage in all proposals they develop as incentives for the ENCPC staff. These incentives are motivators for the staff to do better work and better management.

All engineers working at the Centre have continuous capacity building opportunities. The ENCPC team demonstrated that they always seek additional knowledge and skills through their participation in capacity building trainings and workshops outside Egypt. No doubt and as expressed by the team and the ENCPC stakeholders’, these education trips added to the ENCPC team capacity and enhanced their work abilities.

Business

The ENCPC team scored high “4.5” out of “5” in this element. The team believes they are very close to companies and they have been able to map and addresses the companies’ problems, such as energy and water crisis. The team added that they have ideas to share with the companies that can really help them overcome their problems. All ideas are relevant and companies can also feel their value

“We are now invited by others to provide services. IFC is running behind us to apply for tenders but we don’t have the time”. Industry is the main beneficiary and it is the focus of the ENCPC. To fulfill the needs of this sector, the centre has been working all the time to leverage all resources from donors and other partners to achieve the goals towards developing the Egyptian industry.

Role and Identity of ENCPC

During the fact finding mission, it came up clear that there is not a unified understanding to the role of the NCPC and its mandate. On one hand, some opinions state that the ENCPC is playing a double role: a service provider and an advocate for policy changes since it is located inside the Ministry of Industry and can be part of policy advocacy too. The double role function is completely supported by the ENCPC leadership and team who asserted the argument that there are no competences in the market for people to do energy efficiency and solar energy work. That’s with the centre

is taking the responsibility to promote the concept in the Egyptian of the ENCPC leadership relies on building the capacity of other experts and consultants interested in this area until Egypt has enough experts in this field and afterwards the ENCPC will step back or phase out its services.

On the other hand, there is an opinion that supports the one role of the ENCPC which is the role of policy advocacy. This was reflected in the argument of donor sides that believes that the role of institutions like NCPC, being a public institution belonging to the country, their leverage is greatest when they work at the higher level, when they work at policy level, building capacity of other institutions/service providers. Additionally, the donor side views the value of the ENCPC in creating long-term strategic changes rather providing services in the market. The ENCPC set-up is not governmental but it is linked to the Ministry of Trade and Industry, it is not private sector but is giving services like private sector. Additionally, although the ENCPC is not having financial independence, it still heavily subsidizes the companies. The arguments presented above clearly point to the ambiguity of the ENCPC identity and this role.

The justification of playing a double role stems from the idea that the market in Egypt needs interventions to overcome the energy and water crisis that most of the private sector companies experience at present. ENCPC leadership demonstrated in several interviews that the RECP is not a theoretical program which means that should act as a service provider to assist the companies. In addition, the ENCPC team and some of their stakeholders believe that the ENCPC model is very successful and the need for their services is even requested by other countries now, such as Sudan, Kuwait and South Korea. Based on this point of view, the ENCPC currently taking real solid steps towards transferring their knowledge; build the capacity of others in the region and offering their know-how to establish similar models.

Some interviewees expressed that the double role of the ENCPC gives them quite flexibility as partners to deal with them as consultants and also as representative from a Governmental entity. This indicates that the double role of the ENCPC creates trust and confidence in their services. Moreover, stakeholders from the private sector asserted the argument that the ENCPC proves very good and satisfactory services to industrial enterprises because of the quality of its staff and because of the good network they have in the market.

An additional role for the ENCPC was suggested by some of the stakeholders is that the ENCPC can play a role to support start-ups. They can provide start-up incubation services as well.

Scale and impact

Dissemination of the RECP as a concept for all the 13 technical centres in Egypt came as a strong indicator to the magnitude and scale of the ENCPC at present. The main Governmental partner to ENCPC pointed to the joint visits undertaken by the ENCPC team to identify companies to implement RECP for SMEs. Some other stakeholders supported the idea that the ENCPC can provide training by applying the WAFFAAR program. The argument was supported by the ENCPC leadership that believes that this kind of dissemination is a sign of trust in the ENCPC competences.

Another dimension for the impact and scale is the access that ENPC have to hundreds of companies in Egypt through its partners and stakeholders who strongly believe in the competence of the ENPC team. To back the argument, and according to ENPC stakeholders, the Chamber of Food Industries for example has 3000 members in 9 sectors, mainly related to processed food. Now a lot of companies are interested in reducing the energy waste which opens the door for the ENPC to grow and expand in delivering its services.

Contribution to WS1 RECPnet

ENPC views the RECPnet as an important entity; yet it needs to be a platform for tendering and exchange which requires a lot of effort from their side. ENPC leadership and various stakeholders pointed to the fact that in this entity everyone works alone and bodies are disconnected. Obviously, there is no intersection between the global and the regional bodies and somehow responsible parties are distanced from the reality.

The above argument has another side which is the usefulness of the RECPnet to the ENPC. Though there are no clear connections and communication among different members, still there is the RECPnet is a useful tool in creating a wide network for the ENPC. The evidence came in what was mentioned by the ENPC leadership and some of the stakeholders that the team of the Centre can always learn from the alumni networks provided by the RECPnet. One time the ENPC leadership sent out an email to colleagues from the RECPnet that there is a need for an expert in energy to work with us and they got 10 advices from the colleagues.

The future of RECPnet is still unclear to the ENPC team. How things will grow? By whom? How will be the structure and management? These are all questions asked with no clear answer. The ENPC leadership expressed in some of the interviews that they may lose the direction and that there is a need for one brain to direct this net forward in future.

UNIDO is strategic partner and ENPC worked with them in different fields. Both entities share the same concepts and philosophy for change. In 2004, Egypt joined the RECP. Until year 2011, it was a classical cooperation as UNIDO deals with the centre as an independent hub. UNIDO assisted hugely in the stage of the ENPC setup and provided them with some operational tools such as the business plan.

Contribution to Workstream 3: Eco-Industrial Parks

Relevance

The project goal is found to be highly relevant to the strategic plans and goals of Egypt to establish Eco-Industrial Parks. The development of Eco-Industrial Parks (EIPs) is currently on the top of the agenda of the Ministry of Industry.

The current strategy of the Ministry is based on involving the private sector in the formulation, establishment, and operation of EIPs. This strategy is based on an action-oriented effort aiming at mobilizing economic actors through a collaborative partnership approach that includes the government as well as the private sector. Currently there are existing laws, legal instruments, and regulatory framework that relates to the establishment of industrial areas and their environmental management.

A process of data collection through conducting several visits and meetings with various relevant stakeholders had took place in the industrial clusters in the 10th of Ramadan city, and 6th of October cities. Afterwards, deep analysis has been done according to available data and according to available published documents, official reports and scientific literature. During the site visits, observations were recorded and meetings were held with representatives from several ministries such as: Ministry of Industry and Foreign Trade, Industrial Development Authority (IDA), Ministry of Finance, Ministry of Environment, and Business Associations. The main problem that the project faced was that it didn't have a clear information system on the real industrial zones in Egypt. But now formal and informal information exists.

The EIP project created a huge value for the ENCPC as it directly fits with the overall strategy and plan of the country; and fits with the regulations and future expansion plans of various ministries such as the Ministry of Industry.

It was found that to make any industrial zone or to prepare/build industrial zones, you need to get approval from 8 Ministers, such as Ministry of Industry and Foreign Trade, Industrial Development Authority (IDA), Ministry of Finance, Ministry of Manpower, The Federation of Industries and Industrial Chambers.

According to the EIP project manager at the ENCPC "there are many initiatives in this field, we are all working as separate islands; and that the Egyptian government now stopped to make any industrial zones, just under big investors to make good design to avoid solution. Now we try to guide investors to make these areas for clusters".

In addition, the EIP is also relevant to the country at present because the Government announced the urgency of building the capacities in that field; and coordinating among partners and relevant stakeholders who are interested in the field.

Effectiveness

The project has met all of the planned objectives according to the project manager. By reviewing the project documents (TORs, final report, case studies, etc.), it was clear that the activities were fully implemented and planned activities took place.

Efficiency

The project manager has control over the implementation of the project activities. This includes technical and financial control with minimal guidance from the ENCPC director. The project budget -(8'000 euro- was spent in addition to the contribution of the ENCPC that was estimated by the project manager to be " a lot". The project was managed by one person and the ENCPC staff, already hired by the MOTI worked in the project according to the work needs articulated by its manager.

As mentioned by the project manager "This was a good project for the ENCPC. It was the right assignment at the right time".

Under this project, a TOR and 3 reports were generated and submitted to UNIDO as follows:

1. Policy Review for the project: what are the existing policies and regulations in Egypt that would support
2. Case study: 6th of October
3. Case study: 10th of Ramadan

Though the Egyptian government started in 2013 to give the land and facilities to investors to design the infrastructure according to well-prepared and well-designed industrial zones, but it was not the concept of eco-industrial parks. According to the project manager “my dream is to put the eco-industrial park concept into the newly-designed report. It’s very hard to work on the existing parks (October, Ramadan). We could work in the extensions. It needs policy and regulation”.

Innovation

The main innovation aspect is that the ENCPC is regarded among the very few organizations that worked on the EIP idea. The pioneering approach to have synergy between the UNIDO concept and philosophy of the EIP and integrate this with interested donors and within the structure and regulations of different ministries in Egypt is considered very innovative.

Scale & impact

During the fact finding mission, the ENCPC staff along with the comments from different partners believe that the EIP has had a positive impact. According to the project manager:

- All the companies need to have RECP audits
- All the companies need to build their capacities to make their resources more efficient
- Funding is not available to restructure the existing industrial zones; over 5 billion Egyptian pounds would be needed just to comply with environmental legislation and be close to an industrial park

Nowadays, Egypt has 180 industrial zones, in addition to 40’000 industrial companies with high potential to implement RECP tools.

Sustainability

ENCPC implemented other activities on EIP with other donors. 17 big industrial zones with potential for RECP exist; and therefore, ENCPC are planning to propose to the UNIDO and Federation of Egyptian Industries ideas for EIP projects. Some donors are interested to have co-finance with the Centre on the EIP area. For instance, the ENCPC is currently cooperating with the African Development Bank (ADB), focusing on industrial parks. The Centre will work on having this industrial park concept (UNIDO) in synergy with the ADB.

The ENCPC is currently preparing a concept based on what UNIDO did in Vietnam. This has already been disseminated to interested partner (IFC, Korean government).

Leveraging the ENCPC’s activities in the workstream for low carbon (WS5), discussions are presently underway to obtain funding from the Japanese government, to use the lessons learned from their program for 25 eco-industrial cities. The idea is to have replication in the 10th of Ramadan, with a large facility divided into different workshops, managed by young entrepreneurs.

Lessons Learned & the way forward

According to the report that was handed on Eco-Industrial parks, these are the points that were extracted:

- Egypt could adopt UK's NISP model where an external agency such as the ENCP encourages networking of managers and CEOs of companies to foster industrial symbiosis and developing cooperative approaches to reduce environmental impact of industrial growth.
- Building a stronger communication with various donors is essential for the expansion of the EIP concept.
- The challenge of lack of information on what do we mean by EIP and how to adopt the concept in Egypt indicates the importance of having initiatives and awareness/orientation sessions to educate the industrial sector on this concept. Many donors have tried in that direction and many financial mechanisms were supporting them to make the other zones into EIP but usually it's a demanding process that requires additional extensive collaboration among different partners.
- The real challenge for ECO- Industrial Parks projects seeking successful initiation and implementation is how to encourage companies & stakeholders' collaboration and to develop a healthy balance among all stakeholders' interests. Despite the fact that "Champions" are key actors for developing the community relationships and networks, the IE literature has regrettably given little attention to their roles.
- As far as policy is concerned, Egypt has developed several tools to promote Eco-Industrial Parks. However, there is still a need to develop and create more incentives to promote EIPs, such as:
 - Public- Private partnerships.
 - Facilitate synergies between different stakeholders concerned with EIP development in Egypt.
 - Promote the cluster (special industrial areas with same activities) concept with EIPs.
 - Encourage collective solutions for common challenges for companies.
 - Create new/innovative business models for cooperation between companies in industrial areas such as waste exchange programs, etc.

Contribution to Workstream 5: Industrial Waste Exchange

Relevance

Egypt is one of 3 countries supported by the British government to be one of the pilot countries (Egypt, Sri Lanka, Perú) in this field. The project is supported by International Synergies Limited, a UK based specialized consultancy on industrial waste exchanges which did work with South Africa; and now he will facilitate the exchange between Egypt and South Africa in this experience. According to the ENCP director "In September 2015, we are going to South Africa to investigate. We have budget from our own to cover this. At the same time, ADB is proposing the possibility of conducting some of the activities for Morocco". He added "I think that this will open a new area where we never worked before. The UK has a budget of 10 million pounds for eco-industrial parks. Other development agencies would like As ENCP, we can offer ourselves as experts in this filed and we will not wait for the

UNIDO to finance this initiative”. The plan of the centre is to hire 2 more people under this upcoming project.

Effectiveness

A pilot was conducted by the ENCPC team in an industrial city: 10th of Ramadan. The project consists of 5 components. The accomplished activities included making a bid with an international consultant (international company with a joint venture with Egyptian company) who will be responsible mapping of industrial waste; will collect the data and then make a full database now we are finalizing the financial evaluation.

The project has been targeting 3000 companies in 10th Ramadan; and started to conduct assessments for them. Classification of companies was done according to sectors and selected representative sample.

Impact

The project is for 3 years with high possibility for upscaling and continuation.

It is planned that at least 400 companies will be visited door-by-door. According to the ENCPC director "In this assignment, we will hire a consultant who will be requested to identify type of waste, where it's coming from, its specification, how can I use it, which technology can I use to, where is it, produce pilot for entrepreneurs".

Sustainability

The idea is to have a hub that will be linked to the RECP and there will be a membership. This ensures having a self-financing mechanism. Now in the ENCPC, there is a growing competence in working with the different donors, such as UNIDO, AFDB, IFC, African Union as a donor through EU, USAID.

Contribution to Workstream 6: Innovative Chemical Solutions

Relevance

The project falls under the RECP Programme for the timeframe 2012-2016 with a total budget of 60,000 Euro. SECO has identified projects on RECP for environmentally sound management of chemicals and chemical wastes as one of the thematic priorities.

The overall aim of project is to promote the techniques, methods and tools of Innovative Chemical Solutions – environmentally sound management of chemicals and chemical wastes for the Egyptian industry is to achieve a significant reduction of chemicals consumption and chemicals waste , both in production and in application of chemicals.

The development objective of the project is to demonstrate, in the Egyptian context, the applicability of a implementation of “ integrated and innovative chemical and chemical waste solutions – environmentally sound management of chemicals and chemical wastes” approach in order to be able to achieve significant chemicals and

chemicals waste reduction and sound environmental management of chemicals and chemicals waste in selected categories of Egyptian industry (sectors/subsectors and application) with high consumption of chemicals and high generation of chemical waste.

The project aims to build national capacity in Egypt to apply the UNIDO- Innovative Chemical Solutions – environmentally sound management of chemicals and chemical waste approach that will improve the environmental performance and the productivity of priority industrial installations in Egypt as one of the southern Mediterranean countries.

According to interviews conducted in the fact finding mission with the project manager of the chemical solutions project and with the ENCPC Director, it was deduced that Egypt is considered a Centre of Excellence for chemical management; and thus UNIDO Egypt and this sector in specific because it is a difficult sub-sector. Sectoral specific expertise has been requested from UNIDO Vienna.

UNIDO gave the Centre 60'000 euro to conduct audits and develop options, with a Swiss company (CSD Engineers). The team of the ENCPC worked with CSD on POPs project before, so they were happy to work again on this project.

5 countries are active in this workstream; most of them experienced easier challenges. In Egypt, the team was not part of the project design. The Government reviewed the project and negotiated its activities directly with UNIDO in Vienna.

Efficiency and Innovation

The team was not efficient at the beginning due to a delay in the start of the project. The project is composed of 2 phases. In Phase 1, a technical audit for 5 companies, from different sectors (synthesis, application of chemicals) was conducted. This was at 6th October and 10th Ramadan cities. The ENCPC had experience with some of these companies from before which added to the efficiency of the team in implementing the project activities. At the beginning, an assessment was conducted to companies and 2 technical experts accompanied the ENCPC team to the companies to assist them with the assessment. Templates and tools used in this assessment were provided by the 2 international experts. Again this led the team to be more efficient in implementing the activities. Phase 1 of the project ended 1 year ago; and now after 1 year, the ENCPC has started again with Phase 2. Funds to be transferred to the UNIDO once collected from the Swiss Government.

ENCPC received only monitors and evaluators in the financial not the technical aspects. Reporting and assessment was done according to the templates provided by UNIDO, one of the templates was quite long: 35 pages.

Effectiveness

The project manager spends 50% of his time on managing it. He is responsible for the coordination between ENCPC and UNIDO and the CSD. In the implementation of phase one, and to maximize the efficiency of the staff and available resources, the ENCPC management divided the colleagues amongst the 5 companies during the assessment and auditing stages implemented during phase 1 of the project.

As for the inputs and the accomplished activities, the below table gives a clear picture on what was achieved throughout the duration of the project.

	Activities	Status	Results/Impact/Output
	Planning and time allocation	Completed	A work plan with schedule to implement the activities; Coordination meetings with the project team and international expert Confirm ENPC team for project Criteria for selection of companies were identified
WB 1: Company assessment projects in selected Sub-Sectors			
	A detailed review of sub-sectors in the national context to gather data and material to inform the decision on the sub-sectors to prioritize for the first phase of the project	Completed	Choosing synthesis and formulation as subsectors A detailed list of companies for chosen sectors has been gathered
	Selection of 5 priority companies within the chosen subsectors	Completed	All 5 companies have already been identified. The 5 companies are: Eagle Chemicals Company is located in 6 th of October city. It is one of the leading producers of alkyd resins and polymer products in the Egypt. It exports to more than 50 countries as it possesses an extensive manufacturing capacity, technical and commercial infrastructure. Eagle has developed a wide portfolio ranging from solvent based resins as alkyd, maleic, unsaturated and saturated polyester, acrylic, amino, epoxy ester and phenolic to water based emulsions (copolymers and homopolymers). International Industrial Chemical Park Company (IICP) is located in Borg Arab-Alexandria city. The main products of IICP are chlorinated paraffins, through the chlorination of paraffin wax, and hydrochloric acid. IICP is a major supplier to the Egyptian PVC compounding industry. In addition, IICP exports to Turkey and about 5 countries in Europe. Techno Paint Company is located in 6 th of October city. It is one of the leading companies in the manufacturing of high-value performance chemicals, specialized in the production of construction paints, industrial

	Activities	Status	Results/Impact/Output
			<p>paints, pastes, varnishes, and printing inks.</p> <p>Sprea Misr Company is located in 10th of Ramadan city. It is a leading chemicals and plastics manufacturing company. The main products are urea-formaldehyde liquid glue, urea-formaldehyde powder resin, melamine-formaldehyde powder resin. The Company exports to more than 20 countries all over the world.</p> <p>Plastichem Company is located in 10th of Ramadan city. The company produces formaldehyde, form urea, melamine resins (liquid and powder forms), and melamine and urea formaldehyde glues. The Company's market includes about 18 countries all over the world. It is a sister company for Sprea Misr Company</p>
3	Arrange the mission of the international expert for three days in August 2013	Completed	Joint visits to 3 of the identified companies have been carried out to identify innovative options
4	Mission to RECP Net Meeting in September 2013 and attending project workshop and presenting the status of project	Completed	Preparation of presentation of status of project Presentation of feedback of companies and challenges Identification for next steps to proceed with the project Confirm of next steps and time-schedule of project
5	Visits to the 5 companies identified to finalize collection of data and identify new innovative options	Completed	Collection of data has been finished for the 5 companies New Innovative options have been identified
6	Carry out comprehensive assessments in the proposed companies in each of the selected sub-sectors.	Completed	Comprehensive assessments for 5 companies have been completed
7	Development of 5 case studies for the selected companies	Completed	Two case studies have been developed (Eagle and IICP companies) The other three cases (Techno Paints, Sprea Misr, and Plastchem) have not been developed as per the companies' request
8	Attending the expert group meeting in Vienna to evaluate the overall situation of the project and identify the next step	Completed	Discussing the assessment reports of the selected companies and the innovative

	Activities	Status	Results/Impact/Output
	in the upcoming phase		solutions to be implemented Identifying the next steps and the recommendations in the next phase
9	Preparing TORs for the technical experts that will provide the technical assistance for the selected companies	Completed	TORs have been sent to UNIDO to identify the international experts
WB 2: Support Technical Primers/Manuals for each Sub-Sector and contribute to the development of the Draft Toolkit			
10.	Support international experts in the development of Technical Primers/Manuals	Completed	Three brief reports specific to Egypt have been prepared to help in the preparation of the manuals: Enabling Policy Environment in Egypt Overview of National Strategies and Policies in Egypt Alternative Finance in Egypt
WB 3: Training and Preparation for Up-scaling of Innovative Chemical Solutions			
11.	Organize a 2-day national training to apply and test one of the developed Technical Primers/Manuals and the Draft Toolkit	Completed	Comments and have been taken to improve its applicability

Innovation

The assessment and interventions were implemented in 5 companies as mentioned earlier. The innovation part existed in the options that came up by the implementation team to assist the five companies. Below is an example of the innovation aspects tackled in the Eagle Chemicals Company.

We can categorize the innovative options into two categories. The first category is the implemented options which include four options, the first one is installing modern foam fire-fighting system which provides perfect safe work environment and also protects the facility from any fires that could cause multiple damage to the buildings and the storage warehouses.

The second option is installing system with canopy + ventilation + cyclone to capture fugitive emissions that in return protects both of the workers' health and the environment.

The third option is installing enclosed conveyor belts transport solids to an intermediate silo, which is pneumatically transported to each reactor silo, so it reduces loss of powders during manual loading, reduces fugitive emissions, reduces emissions to the environment, and improves safety by removing manual labor.

The fourth option is switching to a 4-drum unloader which helps in increasing productivity and fastening the production process. The saving of implementing these options can't be directly touched but we can feel them indirectly in many ways like safety improvement and making the industry more environmentally friendly..., etc. I

t's worth mentioning that insisting the company to practice RP measures is a clear path towards continuous improvement.

Major Innovative Options and their Expected Benefits:

ID	Option Name	Investment (USD)	Saving (USD/Year)	Payback Period	Benefits
1	Install larger cooling system with external chillers and other auxiliary components	575,286	2,713,714	3 Months	To reduce the cooling period of the reaction vessels and increase the effective productivity by about 10%.
2	Installing distillation column to recover washing solvent	85,714	44,571	2 Years	To recover the used solvent from the waste stream, which reduces the consumption of the solvent
3	Increase washing fluid pressure for reactors from 400 to 850 bar; requires a new pump	82,857	2,825,714	1 Month	To reduce the cleaning time between batches, which in return increases the rate of productivity by 10%.

Other innovative options in other companies came as follows:

Techno Paints

1. Transition to water based varnish instead of solvent based varnish
2. Cover the vessel by adding cover and gasket for mixing tanks to prevent loss of solvent
3. Update the fire-fighting system with properly placed detectors and foam tanks

Spreamisr

1. Ventilation of the phenol moulding compound line
2. Upgrade the ventilation system of the wood and olive powders line
3. Change the mist eliminators of the 3 cooling towers
4. Adjusting the air-fuel ratios of the boiler to the optimal level to be 2.5
5. Using external (outdoor) air as feed by installing outside ducts - average annual outdoor air temperature: 21° C

Plasticchem

1. Ventilation of the high pressure laminate line

2. Change the mist eliminators of the 4 cooling towers
3. Using external (outdoor) air as feed by installing outside ducts -average annual outdoor air temperature: 21° C
4. Cleaning the scale at the outlet of the cooling tower

International Industrial Chemical Park (IICP)

1. Measurement of feedstock quality
2. Install an automatic and enclosed filling station for HCl
3. Replacement of the additives with better alternatives to offer better quality for the product

Impact

According to the input from the ENPC director, phase 2 of the project is designed to react out to additional 8 companies to conduct assessment for them. This indicates the positive impact of phase 1 and the plan to increase the impact on even more companies. "In Phase 2, we will utilize the toolkit and it is planned to start by September 2015".

Sustainability

There were 5 study cases on 5 companies, an Assessment summary of the five companies in innovative chemical solutions and a report generated and submitted

Lessons learned and the way forward

- Some companies were aware of their problems and needs in general but not with comprehensive analysis for each specific case, financial support and a specific technical support was also needed.
- "Product Development" needs to be well defined and introduced to the companies with more input from international sectorial experts.
- Subsector manual is a highly challenge task.
- Focusing on product development innovation methods and tools
- Motivating the companies to implement through providing international sectorial technical assistance
- Focusing on a subsector with a tremendous number of companies for up scaling

Contribution to Workstream 8: Innovative Business Models

Relevance

In 2005, the ENPC Director, then working as associate expert, was appointed to handle this workstream. The idea of Chemical Leasing is to pay for chemicals use on the basis of the functional/productive output achieved from using the chemicals. The idea cannot be implemented with all companies. There should be a culture and an enabling environment to do so. The director added "the concept is very good but it is more or less limited to certain processes. In the future, maybe it could be more applicable for other high-concerned companies, using chemicals".

Innovation

There should be other innovative business models in this working stream but until now, nothing is there.

Efficiency

In Egypt, the ENCPC applied the concept with General Motors, a well-known company in automobile production. According to the ENCPC director “the user would like to reduce the chemical consumption. How to bring them to the same direction: to reduce the costs and reduce the consumption. So instead of GM doing the cleaning, give the leasing to the Chemical supplier so he has the know-how, can use the chemicals in the best way and gets paid for cleaning the car”.

He added “Our task was to start testing this approach in different sectors. In Egypt, we started with electrostatic in the companies producing cars. This was a tough exercise, to change the mentality to a service model. The technical people agreed but the financial system would not accept it. The chemical producer needed to have an invoice for the chemicals sold”.

In this project, UNIDO did not provide the centre with any toolkits, so the team developed it by themselves. The toolkit was done in partnership with the ENCPC local companies, such as the General Motors.

By having the toolkit ready by the end of the first phase of the project, UNIDO acknowledged this step by the centre and the tools were then combined into a UNIDO toolkit. Referring to the interview with the ENCPC director, “ It has now been disseminated to other countries in the network: Mexico, Russia. Then later to Sri Lanka, Brazil, Uganda, and others”.

Impact

After the impact and success of the first phase, the Centre decided to replicate the idea once there is an interest from other companies. It was not clear how the Centre will do that. Referring to the ENCPC director, “the struggle for upscaling is to make it self-financing because as a Centre, you cannot be involved in this forever”.

Sustainability

Since 2011, ENCPC has not been financed directly by UNIDO for this project.

8.9. Annex 9 – Report from National Evaluation Consultant - Perú

Perú is laying the foundation for sustainable development, economic stability, reforms to improve social conditions, poverty reduction, promotion of private investment and clear environmental policies; for which the country has set up reforms that have generated policy and institutional improvements.

In that context, improving business competitiveness, productivity, and diversification are key issues where RECP is being considered within national plans, policies, programs. Therefore, the support through RECP Program is of strategic importance for Perú.

For the development of this assessment it has taken into account the primary information gathered from interviews the Director of the CER, project managers, consultants who have participated in the project implementation, project beneficiaries, companies have been contacted in person or by telephone interview, officials from the Ministry of Environment and the Ministry of Production and ex-official of the Municipality of Lima. Also it has been considered secondary information obtained of the partial and final reports of projects, including budgets executed (WS5 and WS6).

CER is the National Cleaner Production Centre in Perú. The centre wide experience in the field of Social Responsibility, Cleaner Production and Ecoeficiencia in SMEs.

CER has implemented different projects with technical assistance and financial support from UNIDO, generates synergies with other private and public institutions at national level and with international cooperation.

Institutional Analysis of the CER

Grupo GEA is the host institution of CER. Grupo GEA was founded in 1992 and has a strong alignment with CER vision and mission. The beginning of the institution started in 1998, with an environmental project that involved SME's. In 2002, Swiss and American cooperation created the National Cleaner Production Centre in Perú called CET (Technical Efficiency Centre) administered by a Consortium of SENATI (national centre for Technical National Council of Environment) and SNI (Industry National Society), University of Lima and Ministry of Industry.

In 2006, the Swiss and Americans decided to change, to promote that the Centre should be operated by a single entity. The previous model was nice but it didn't work (evaluation was done). For that reason, a public bidding was realized. Grupo GEA won the contract in 2007. And the name was changed from CET to CER in 2007.

In 2007, the Steering Committee was formed by MINAM, PRODUCE, Ministry of Health, and APCI (Ministry of cooperation, including 3 Ministries). CER prepared the strategic plan according to the guidance of the Steering Committee and this committee worked for 3 years. The meetings were realized in the Swiss Embassy.

Since 2007, the CER is operated by Grupo GEA. One of the first things that CER did in 2007 was to publish the cases of CET and also the RECP cases of different Latin American centres (SECO and UNIDO). CER develops programs, projects and consultancy and training services in the following work areas: Resource Efficient and Cleaner Production (RECP), Ecoparks, Responsible production and eco-innovation,

Corporate Social Responsibility, Climate change: Carbon footprint and Life cycle assessment.

CER started working Eco-Parks not as an Eco-Efficiency topic, but as a territorial Eco-Efficiency topic, not only involved the industries, also the municipality, schools and the larger community. Then CER started promoting Eco-Parks, also taking advantage of being part of GEA because the group has a long background working. CER had a multidisciplinary staff: social workers, economists, engineers, we built toilets/touristic panoramic views.

Grupo GEA published the outcome of a research project “Greening the SME’s in the Agenda 21. CER/Grupo GEA provides a credibility source of information for the government, as a tool to gather information but the government doesn’t have first level information. CER takes information and creates knowledge from the field. For the 2015 publication: CER did this project for the ICRC that lasted 18-month project. Currently, the leader of this study is the advisor to the Ministry of Industry.

CER/Grupo GEA prepared the global report for Lima: Reporte Ambiental de Lima y Callao; 2010. Actually, CER/Grupo GEA is preparing the 3rd report of outlook for Lima.

As part of the agreements CER/Grupo GEA works with South University to use UN methodology: pressure, performance indicators. GEO methodology. CER/Grupo GEA is linked with 3 universities to tap into students to do work. CER and Grupo GEA have a nice symbiosis with the others areas: e.g AQUAFONDO which is a Water Trust Fund for Lima and now has the responsibility to be the Technical Secretariat.

Grupo GEA has the mission of encouraging the change for a sustainable development by promoting technologies, environmental procedures and practices with a social and economic significance, especially in the business, cities, communities and educational areas.

The staff of CER/Grupo GEA, as result of the evaluating, made the present analysis considering the document “Good Organization Management and Governance Practices”¹¹. The results are shown below:

Strategy

Self-Assessment: 80%

The Eco-efficiency and Social Responsibility Centre (CER) has its mission and vision. CER mission is to create value in the sustainability area, and its vision is to be a reference centre in the Perú.

CER has an annual plan that is developed at the end of the year. The CER team reviews all the projects realized during the year and evaluate all achievements obtained. Based on these results CER develops a SWOT and plans the activities for the next year, the same activities that are aligned to Grupo GEA’s plan.

RECP’s methodology lets CER to be technical member of committee: Cleaner Production Committee network for 2 institutions INDECOPI (Normalisation Institute), and MINAM (Environmental Ministry). Through RECP’s methodology, CER has promoted several initiatives and mainstreaming policies for environmental policy and

¹¹ UNIDO/UNEP “Good Organization Management and Governance Practices, a Primer for providers of services in Resource Efficient and Cleaner Production (RECP) April 2010

business, building bridges between public and private sector. Currently, each project has its steering committee E.g. EcoPark has MINAM and PRODUCE.

The final score is a realistic number because CER is recognized as a key network in public and private organizations (include universities) as the Technical Reference for different environmental projects. CER implements ecology and economy in a methodology for diffusion and to develop environmental awareness to industry. However, although the work done by the CER is good, there are always things that could be improved.

Autonomy

Self-Assessment: 90%

Grupo GEA is the host institution of CER, which means that CER does not have a legal status, so Grupo GEA signs all the contract with UNIDO. However, each project is autonomous (more on communication strategy for projects). CER can enter into contracts for service delivery and has a lot of freedom to manage its funds. Each Project Manager manages its project, organises and is responsible for the budget.

UNIDO lets us have 6% as an administration fee. CER made synergies with other organizations such as private companies, government and other NGOs. CER does not have conflict of interest because its activities are regulated by Grupo GEA's statement. CER is a small institution with institutional cooperation agreements.

Operational Management

Self-Assessment: 90%

CER has a small staff team and has different projects. That's the reason that CER management system is very decentralized. Every project has a Coordinator who manages the budget, the activities and the relationship with the agency or the client. This way enables CER to develop different projects.

The work plan is an aggregation of all the different projects, in a general scale. The job descriptions are in the plan and the CER team knows its duties. Each specialist has a contract. CER's policy is to put everyone in the most legal situation possible.

All the professionals know how to prepare proposals and they have to make the time to prepare all the technical and financial documents with the help of the administrator. Respect to private contract – e.g. service for a company, the CER's labour is much more simple.

CER has to meet 2 standards: Ministry of Labour, we pay taxes as any private company, we report to the Peruvian Ministry of International Cooperation (APCI), who also gives us the NGO license. CER pays and promotes actively the training of its professional staff (Training course, 2nd Career, English courses, international events). It is a way of motivation for the CER team. CER team has a flat organization. The relationship between specialists is very fluid that allows the exchange of knowledge and feedback from the projects that each performs.

Business

Self-Assessment: 95%

The Grupo GEA profitability comes from private clients: UNIDO activities take 30% of team leaders' time and contribute about 6% of Grupo GEA incomes. CER offers significant "pack" services. E.g. Eco-innovation, Buena Voz, others.

Currently, Grupo GEA has a strong relationship with important medias: appear on TV, radio, websites, newspapers and networks. CER puts a lot of effort into disseminating information about the projects and the centre. Belongs to RECP net, also belong to a UNEP-WTO (Global Sustainable Tourism Network).

CER has identified one problem is that they have to learn to say "no" to some projects. In this cases the costs - benefits are not so big. Actually, CER focus on projects that are not related with legal issues or environmental impact assessment.

On Sept 1st, CER has send a proposal to UNEP related to electric and electronic waste management. CER prepared the proposal taking into account the NCPCC Colombia suggestions. The budget for this consultancy is USD 30'000. Also, CER is participating with another partner (Peruvian private company) for a South Korean tender.

Respect to proposals as a region. CER needs time to clear mind and to exchange information with other countries, and look for organization/funding agency.

CER priorities are responding business opportunities and develop interesting and attractive to find funding proposals. The power of the network comes in here.

Expertise

Self-Assessment: 100%

CER/Grupo GEA has a central system to manage the information and everyone has access the central hard disk of the server: all the reports, contracts, audits, others (knowledge-sharing). CER team has monthly meetings with formal presentations.

All the information in CER is sharing by virtual systems (online, email, digital), and the communication between the specialists is immediately: face to face or by what's app.

CER has a young team (3-5 years experience), whose quality of work is improving as are trained, delegates responsibilities and to empower them to make their own decisions. CER idea is to make something like giving shares, to help them feel they have a part (70% GEA, 30% shares to the staff).

One of the difficulties of the CER is to have a young team, since each member has different interests. However, the experience each specialist has as engineering lets to CER to sign agreements with universities such as USIL (a Business University), where CER team can share technical knowledge with business student so they complement their knowledge. With this value added CER team improves their expertise.

Contribution to WS1 Operational Support for RECPnet

CER was part of RECP LatinNet. It was the first networking made by the NCPCC's. In 2008, CER was in the Steering Committee of RECP LatinNet. Later, the centre was

assimilated as the Latin American chapter of the RECPnet, as did the other members. CER is part of RECPnet since its creation in 2010.

However, CER continues working in both networks: RECP LatinNet (regional level) and RECPnet (global level).

CER has as expectation that RECPnet is going to increase because of the demand of services by companies with RECP approaches, and the public procurement is very useful in this sense.

The RECPnet is trying to make a lot of synergies amongst our projects: communication, documentation of the cases, increasing capacities to propose measures to the companies. The net is trying to connect everything. UNIDO is like the central support for all these different activities that all NCPC's are undertaking.

Programme Formulation

In 2009, the RECPnet since its creation has involved a variety of partners through a membership, which each member must meet certain requirements and pay the respective annual fee.

RECPnet follows a three pronged strategy towards mainstreaming and replication of RECP methodology by:

- Capturing and promoting best practices RECP information and knowledge
- Improving the knowledge and skills bases of Members.
- Advocating the relevance, needs and benefits of RECP for enterprises and other organizations.

In this sense, the RECPnet has an impact on their members, which are generally national production centres NCPC more cleanly. In the case of Perú, the NCPC is the CER, which is operated by Grupo GEA (a private NGO).

The government is not involved in the network and also private companies, but through CER can access information and place information RECPnet of successful cases.

Programming and Planning

RECPnet, comes running and organizing coordinated by a professional assigned by UNIDO, which has the responsibility not only RECPnet administration, but responsibility for other projects, so that coordination is not very agile.

For RECPnet, it seeks to achieve the incorporation of more members, however, the most important thing is not the number of members but the information exchanged.

CER has been participated in other networks, based on this experiences CER knows that is quite heavy to organize and maintain information and all the logistical that it involves.

Participation in the Network is voluntary, the use of shared information helps to know that is being done by the other members of the network. No involvement of governments and other actors.

Ownership and Relevance

The Knowledge management in RECPnet is not so agile. E. g In the past, everybody used to have technical information as good as possible, now it takes time for people to review the information, papers and to develop the cases, others.

Is important to consider that NCPC's core business is to work with companies and they don't like to disclose their secrets. Nevertheless, the NCPC's show cases with the pertinent confidentiality. Sometimes, companies are very sensitive and, they do not allow the NCPC to publish their cases. So, the information that is provided is not possible to publication into RECPnet.

RECPnet is in constant competition with hundreds of sources of information: EPA, World Bank, Development Bank, research centres, specialized communities, etc. Currently, there are working groups for everything.

What sets the RECPLatinNet with other networks (e.g. information eventually can be used as user platforms such as Google that are free) is that RECPLatinNet is working as a visual focal point with information, to interchange the request of information to different networks and NCPC's. And also, the RECPLatinNet has a 2nd level platform to maintain updated all the information as much as possible.

Efficiency of Implementation

Resources / support provided for operating UNIDO RECPnet serve for network support, training, information, methodological tools. However, the problem is that there is not a full-time administrator.

The recommendation is that RECPnet should have a manager 100% of its time in the administration of this issue. The RECPnet is financed by membership contributions (its members), which also provide information.

Effectiveness

RECPnet has its clearly defined objectives, since its establishment, however, is not effectively achieving these objectives as users of NCPC not consider this tool as an important contribution to access information and revolve around RECPnet.

The main benefices that provide the RECPnet are:

- To know who is doing, what technical topics are developing in other NCPC.
- To know business opportunities (to present our proposals or be part of bids), events, etc.
- Training opportunities and Interesting news, other topics.

In real life, members of RECPnet don't need to know the information about other members they know. If they want to get information, they will write emails or search information in Google.

Impact and Sustainability

RECPnet, in principle generates an important image for its members, because being part of a network promoted by UNIDO gives status to its members and partners. And also the members have the opportunity to get trained together with people who speak the same language, with people who use the same methodology.

The members have the support of international methodology. This is a strong and valuable message to the company. Participants feel that they belong to an international initiative. All the initiatives and achievements made through the RECPNET let create a message for a public policy makers. It usually happens not only in Perú but also in other countries. The policy papers and declarations can give to policy makers some tools, arguments to create regulations. The technical inputs from the global RECPnet are valuable, however, the net should promote the policy component.

The policy component should have the same weight as the technical information. Both components are important, however, include the policy component would let to RECPnet to be a political advisor too.

On the other hand, the institutional and legal framework of RECPnet defines the success or failure of the sector. Actually, if the members have an enabling framework for RECP, so It is members task to work on the enabling framework and to create the technical success cases.

Project Coordination and Management

The coordination of RECPnet is somewhat heavy and slow, does not respond to the requirements of its users in an agile way.

To the interior of the country the CER as NCPD are trying to connect everything. UNIDO is like the central support for all these different activities that CER is undertaking. The challenge is to create more synergies inside CER between the different projects, eco- clean productions, eco-parks, eco-efficiency, eco-innovation, eco-hotels, and others.

Synergistic benefits have been achieved relative to other activities of UNIDO, UNEP, and/or the partner organizations in beneficiary country.

Lesson learned and recommendations

- RECP`s network are quite heavy to organise and maintain. Both networks have the same strengths and weaknesses as with the RECP LatinNet.
- RECPnet and RECP LatinNet are competing with a several sources of information of specialized communities. There are working groups for everything.
- RECPnet should have a manager full time for the administration of this issue.
- Is necessary to create a message for a public policy maker, as we will have the support from the network.
- It is necessary to have policy papers, policy declarations that can give inputs about tools, arguments to convince policy maker.
- It is necessary to climb RECPnet to achieve your goals.
- RECPnet could create a Small Enterprise Day for Latin America. To organise some activities for social awareness on a specific day.

Contribution to WS3 Eco Industrial Parks

Grupo GEA started and promoted the concept of eco-Park in Perú since 8 years ago. The concept of eco-parks consists in the transformation of a concentration of companies into a network of companies with good environmental practices.

The vision to develop “eco-park” was showed that the business development has to be according to the social responsibility and ecoefficiency to be sustainable. This concept was executed through the project called Territorios Ecoeficientes: Ecoparque Industrial del Callao, where 7 enterprises took part in this programme.

The responsible of CER/Grupo GEA had to support the technical and policy components. Respect to the eco-park policy, it consisted to transform existing industrial zones and to establish new ones using eco-park principles. For these achievements, CER worked with the Callao regional government, responsible entity to support policy development.

Programme Formulation

The concept of Eco-Industrial Parks had been adopted and developed through pilot cases of CER/Grupo GEA, long before it was incorporated into the RECP Program, which demonstrated the experience that was being handled by the CER regarding to ecoparks.

Programming and Planning

CER/Grupo GEA contributed with its experiences in ecoparks: Callao, Pucallpa and Huaycoloro Eco-Parks that developed in Perú. These achievements were possible with the institutional supports of regional and local governments, and contributions from the companies themselves.

Ownership and Relevance

The first project developed in Perú related to the eco-park was Eco-industrial parks Callao executed by CER/Grupo GEA. The aim of the project was to focus and concentrate in one specific geographic area different industries for promoting and supporting the change of practices, process, technologies, mindset and culture for industries to become more efficient and greener.

With this first experience CER/Grupo GEA started developing other eco-parks projects in Pucallpa, and Huaycoloro (located in Lima). For these 2 last projects, CER didn't receive any fund from UNIDO.

CER/Grupo GEA recently has finished to help UNIDO to formulate a project for GEF, and counted with endorsement letters from MINAM and PRODUCE ministries. Currently, the project has been submitted for so-called final CEO endorsement in the GEF cycle.

A relevant aspect was that the Project achieved the involvement different public and private stakeholders, including co-financing support from the enterprises and international cooperation SECO.

Efficiency

The eco-park projects were not executed with financial support from UNIDO. The Eco-industrial Park Callao Project was co-financed by enterprises that had participated.

Each participant made a contract with CER/Grupo GEA to cover all the technical support and it was held with the cooperation of SECO.

The main achievement obtained by the executing Eco- industrial Park Callao project was generating a model that has interested at the government and has been incorporated into.

In 2013, UNIDO contracted a specialist consultant, who came to make an assessment, and also he trained public functionaries from Industry and Environmental Ministries.

CER and UNIDO signed a contract for developing 3 cases related to eco-parks. The aim of that contract was that CER provide some guidance for doing the eco-parks cases that were linked to RECP and Green Line Credit.

CER proposed and made 3 cases: Callao, Huaycoloro, and Pucallpa for reviewing by UNIDO. In 2013, UNIDO made an invitation to CER to share experience amongst these 3 countries Perú, Egypt, China and Vienna. At that time, CER had had a workshop about eco-innovation and eco-parks in where the results of the 3 cases was showed and discussed why and how is the way (requirements) for improving their implementation.

Subsequently and after the workshop, CER received the visit of a CSD Engineers which had been contracted by UNIDO, to prepare a proposal for present to GEF funded project. The proposal was presented in early 2015. Now, the evaluation is in process, there is no decision yet. CER provided all the support to him for preparing the proposal.

Effectiveness

The aim of Ecoparque Industrial del Callao was build a roadmap focusing on improving eco-efficiency measures and looks for possibilities to do an industrial symbiosis (thinking in the exchanging of the raw material and treatment of industrial effluent). Furthermore, this good initiative let the possibility to scale up in other areas (districts) in Lima, especially in those vulnerability areas because of the contamination.

All companies were very motivated and interested in continuing the pilot project. The RECP methodology applied to the companies and the trainings were the most effective mechanism to be a success, that why many of the companies in Callao signed up for that technical support. Currently, they have a network of consultant.

Consequently, the next project Ecopymes was developed with 10-15 SMEs. Grupo GEA and the Municipality of Lima signed the agreement. The aim of the project was implemented RECP measures inside the companies to improve its environmental practices in order to contributed in the conservation of protected area "Pantanos de Villa". In this project, CER used the same methodology as the Callao project.

In 2012-2013, CER used a tool of GIZ (PREMA – GAR), where CER identified some companies near the river Huaycoloro, near Lima City and the principal issue identified was the industrial effluents. Huaycoloro project was financed under the RECP Program, with a focus on water treatment. The main goal was to work inside the companies involved to optimize their process, and improve the water treatment inside each company. CER worked with a set of 7 companies, which grew to 13 companies (SMEs) over the course. Companies showed interest over time, so CER expanded the group.

The main and valuable role of the Municipality of Lima was to provide to CER, the institutional support during the developing of the project.

Impact

Ecopark Callao involved 7 companies that achieved through eco-efficiency practices increase productivity and improved profitability levels.

The greatest contribution of the project was to generate business cases, where the companies corroborated that they are more profitable if they improved to the extent that their production processes are optimized and the environmental pollution is reduced.

Respect to Eco Industrial Callao, Huaycoloro and Ecopymes projects, CER involved in total 32 companies. The experiences of these three projects were used to develop the GEF project financing.

Innovation

The Eco-parks project was a model gestated and initiated by the CER / Grupo GEA in Perú. It is the first experience of business associations with geographical criteria to boost eco-efficiency. Which meant countless possibilities for replication in multiple parks and industrial zones nationwide. Additionally, Eco-park projects will allow the leverage of national and international funding.

Sustainability

The eco-park projects require monitoring and support mechanisms to continue operating efficiently once the project ends. Therefore, it is important working with partners such as Regional Government or Local government. It is important as well as create links between businesses to ensure synergies and shared benefits.

Replicate this model requires the policy supports that promote the dissemination and funding.

Project Coordination and Management

The first stage of the project was directly related to the knowledge capture. It is expected that in the next stage CER can participate by presenting specific proposal to meet the growing demand from the cooperation.

Lessons Learned & Potential Recommendations

- It is important to have the support of the government. Because CER/ Grupo GEA has more credibility and legitimacy and companies feel committed. However, sometimes the presence of government scared them, because the companies showed their practices and there was a fear that they would interfere in terms of enforcement and government control.
- Work in one project is not enough. It is necessary to encourage these type of activities not just in Lima but at a national level. Additionally, the disseminating of projects need to be promoted through different workshops and events.
- It is necessary to create examples for replicating projects, considering the financial support for implementing.

- The eco-industrial park is not just a technical support. The project has to involve the social part to understand the internal process for each company that it is good for exchanging. All the components have to be included to ensure the sustainability.
- The projects need to link different components: policy component and technical component. CER provides the technical support linked with resource efficiency and cleaner production.

Contribution to W5: Industrial Waste Minimization

Industrial waste minimization for low carbon production project was developed in coffee and rice sectors under the umbrella of the Resource Efficiency and Cleaner Production – RECP Programme of UNIDO. The project had as a main milestone the reuse of industrial waste generated in both sectors rice and coffee to obtain bio-energy. Additionally, the project contributed to minimise the GHG emissions and provide an alternative for resolving the currently environmental impact, and at the same time provide economic benefits for companies. The project started in 2013 and lasted 2 years ago. It had 2 components: context analysis of both sectors (rice and coffee), and technology component for developing pilot projects.

Programme Formulation

Perú was selected for developing industrial waste minimization for low carbon production in rice and coffee sectors. The project lasted 2 years and it started in 2013. In parallel, Colombia, Cambodia and Vietnam had been selected for executing the same project.

CER/Grupo GEA based on its REXP expertise selected 10 SME´s. The project had important meetings with different stakeholders, especially with the Agriculture and Energy and Mining Ministries, and additionally it has a knowledge exchange with Colombia.

Programming and Planning

CER/Grupo GEA signed the contract to develop the Industrial waste minimization for low carbon production project for 2 years. The selection of the rice and coffee sectors was a decision from UNIDO. UNIDO contracted SOFIES for monitoring all the advances from CER and provide feedback related to clean technologies. All the activities were developing according to the ToR approval by CER and UNIDO. At the first phase of the project, CER elaborated a document where included all the national information of both contexts. Based on this, it was known the value that was given to the waste generated in both industries, environmental regulation, among others.

CER selected the main region (based on the critical situation respect their wastes impacts) to work with. Total enterprises were 10 for both sectors. Consequently, with the technical support of SOFIES, CER prepared (02) pilot projects for clean technologies: Pyrolysis (for coffee sector) and Combustion (for using the rice husk). As an added benefit the information about SECO's Green Credit Line has been widely distributed and received a lot of interest.

At the end of the project, CER looked for another agency to finance the pilot projects which were at the level of feasibility study. Financial support was difficult to obtain as such pilot projects are perceived to carry a high investment risk.

Ownership and Relevance

The project identified opportunities through quick tools using the methodology of RECP in the enterprises for rice and coffee sectors, reduces industrial waste generation with the implementation of best practices, process optimization and adoption of clean technologies.

During the process of executing of the project just 8 of 10 companies continued with the implementation and fulfilling of the activities until to the final year. On the other hand, two companies took part in the project as members of the pilot projects.

CER analysed the technical, economic and environmental effects of the CP measures to implement in the 10 SME's.

For this purpose, a study of opportunities was carried out, and technical guidance of bio- energy technologies was developed. Since that, technical - economic studies (business models) were developed for co-funding and implementation of the technologies.

It's important to mention that under the umbrella of the project many public official were involved (Mining and Energy, Environment and Industry Ministries); academia and industries. The technical support from SOFIES (UNIDO) was very valuable.

Effectiveness

CER decided to work the project in three stages for executing the RECP activities:

1. Rice and coffee sector context analysis.

CER prepared a document when register all the information related to rice and coffee sector, and had important meetings with different stakeholders, especially with the Agriculture and Energy and Mining Ministries.

2. Identification of CP opportunities develops a technical guidance for both sectors.

CER selected the main region (based on the critical situation respect their wastes impacts) to work with. Total enterprises were 10 for both sectors. Additionally, expert group meetings were developed in Medellin (Colombia) and Lima (Perú). During those events CER/CNPML discussed about technologies, its implementation and identified pilot projects for developing. It was very useful and valuable interchange of knowledge between both countries and let SOFIES prepare the technical guide.

3. Recommendation on the results of the monitoring RECP measures implemented in both sectors.

With a proactive support from CER/SOFIES, the majority of the planned CP measurements are now implemented. Further details, also on impacts, are available via SOFIES or the corresponding Factsheets.

Generally speaking CER was positively surprised by the level of implementation of the recommendations in the enterprises involved.

Efficiency

The project is of medium size; its budget amounted to 63,521 euros. CER used the resources from the project budget to complete all the activities according to the ToR. 74% of the budget went to payment of national and international experts who provided technical assistance for the promotion and implementation of the pilots. It is important to mention that a low budget went to the business report and dissemination (0.5%).

The focus lay on RECP assessment follow-up and Pilot project implementation. The RECP team distributed its time according the work plan and all the technical activities made in the schedule time. The dissemination of the project activities is enhanced with other activities that the Centre performed, generating synergies.

Impact

All Cleaner Production measures implemented are in line with the key recommendations from the previous context analysis: energy, water management optimization and better rice husk/coffee pulp management. Most of the companies had prioritized and implemented the cleaner production measures proposed. Impacts are estimated with clear assumptions.

All pilots projects were aligned with the recommendations from the previous context analysis and were either in phase of implementation or almost ready to be implemented. CER has success cases from both sectors.

The main focus of these investments: higher energy efficiency production lines and improvement of rice quality (increased selling prices). Out of the ten enterprises RECP started with, six continued into the second phase. Additionally six pilot projects proposals were made.

Innovation

The technologies proposed for implementation in both sectors had the innovation component because in Perú e.g. “Pyrolysis” results as a pilot country project which mean high risks for implementation. The Technical Guide developed by SOFIES contributed to concrete and select the BAT for treating and reusing industrial waste.

CER could learn about Colombia technologies experiences, and sharing information with countries like Brazil, Vietnam, Costa Rica, Switzerland, etc.

Sustainability

Introducing and explaining the RECP Program along with UNIDO and an “international Project” helps to break the ice and facilitates to get interest of relevant stakeholders. Also generally speaking those stakeholders are very easy and quickly motivated and generate many ideas during meetings/ visits/ events etc.

RECP project let many other institutions realize pilot projects with the approach of bio-energy. Currently, CER keeps in touch with the participants of the projects because they have noticed that include the sustainability component are very valuable resource to be profitable.

Currently, a coffee farm (Mountain Finca Cafe Villa Rica – Santa Josefa) continues the project with another international fund: Life cycle initiative from UNEP, SETAC and with another National Funds: Fincyt.gob.pe

Project Coordination and Management

Despite being operated by Grupo GEA, CER is autonomous in leading projects. RECP project management as it was noted the ToR. Sofies Kingdom through the development of CER monitored regarding the progress of the project. Every two weeks, the team had RECP skype calls to coordinate and monitor the progress of the CER to the project.

Lessons Learned and Potential Recommendations

- It is often expected that all work is being done by either of SECO/ UNIDO/ SOFIES/ or CER and that all services are free of charge. For that reasons, all the information had to be interchanged and clarified at the beginning of the process to not generate confused or mistrust with all the stakeholders. Some activities that had being defined in the ToR were changed in the middle of the project developing such as co-financing for pilot projects, and also CER suffered some bureaucratic process that delays the project's activities.
- The sectors selected were opposite in terms of scale. While rice sector had a huge potential to obtain energy from its waste, the major impact from coffee sector came from the use of water (the water in free), and their solid wastes were use as compost for their farms. The coffee sector in Perú is dominated by family-owned business (80% of the production) So it's difficult to have a direct impact with CO2 emission. But the impact with the project replication is potentially high however it's necessary to have a larger vision (2 years).
- Therefore it is extremely difficult to convince stakeholders to invest in a simple monitoring system. A possible solution is to direct finance the implementation of a simple monitoring system in one showcase factory to demonstrate the positive effects and ultimately monetary savings. Once this has been done, maybe just with low "hanging fruits", trust has been build other CP measures will be implemented and it is very likely others will follow suit. This effect has clearly been demonstrated in the Tarapoto area (even though without a monitoring system) where three Rice mills implemented similar technology.
- A barrier for promoting the project was the Peruvian political system: after the term most positions of regional governments change and along with this all started efforts get lost and the new representatives start from scratch. Consequential, often the stakeholders are reluctant to actually invest in any of the recommendations because of these negative experiences. Looking back, the "Green Credit Line", if introduced properly, can be a great facilitator in the rice sector. The key is to already have a clear project idea where the entrepreneur could apply the "Green Credit Line". It is not enough to explain all the details and mention other successful employment of the "Green Credit Line".
- The scope of the projects should consider all the value chain to reflect the real impact of both sectors. Respect to coffee pulp it has a lot of potential to improve the coffee yield, linking the agriculture step and the production step. It was difficult for CER to set the boundaries for the project because everything is linked.

- It would be very useful to continue the implementation for the rice and coffee pilot projects and If It is possible replicate the experience in other sectors.

Contribution to WS6 Innovative Chemical Solutions

CER/Grupo GEA has worked with different projects related to WS6.

In 2007, CER implemented the Chemical Working Line known as National strategic plan for Chemical Management with the SECO support. In that context, CER is working together with MINAM in relation with heavy metals issue. It has developed a toolkit on Chemical Management and implemented a national profile on chemicals with a proposal for norms. Chemical project - under the framework of RECP - finished last year.

Now CER/Grupo GEA has proposed to GEF the project called "Lead in paint for Andean" for Perú and Colombia. The aim of the proposal is to regulate the level of lead in paints especially for schools products. CER/Grupo GEA has finished its part related the co-financing from MINSA and MINAM. CER is waiting to other countries to finish their letters for co-financing.

CER/Grupo GEA has just won a contract to update together with the Health Law. CER is going to start soon, and will introduce the outputs of Cycle to help the country to align within harmonized system for labelling of chemicals (proposal for hazardous waste management, labels, etc).

Programme Formulation

Perú was selected for developing the Innovative Chemical Solutions Project with 3 subsectors: synthesizers, formulators and chemical users.

At the beginning of the project, UNIDO had not prioritized the subsectors in which CER had to work with. So, CER started to visit and register companies of different subsector, and after 2-3 months CER was notified by UNIDO that they have to select the subsectors mentioned before.

At that moment, it caused some difficulties between CER and companies that were interested but they did not belong to the subsectors. UNIDO took this decision without a clear explanation.

Programming and Planning

In the case of Perú, the selection of subsectors was carried out by UNIDO, after the project had begun.

CER had identified companies according to the subsectors prioritized by UNIDO. The final selection of companies was through interviews and based on the characteristics of these companies. E.g. interest in participating, and the potential they had to develop the project (prior knowledge of RECP).

The beneficiary companies have expressed their satisfaction on how the project was executed. The participants said the most valuable and powerful point of CER is that the centre has a multidisciplinary team: engineers, specialists in chemistry, specialists in green industry.

Ownership and Relevance

Companies have received technical assistance and participated actively in the evaluation of its processes, and in the identification of options for improving the management of chemicals.

CER has made an adequate selection of participants and have generated commitments for implementation. The beneficiaries expressed their interest in continuing with the project and consider that in general has helped to improve its processes and operating conditions, and given them visibility as a success.

Efficiency of Implementation

UNIDO is one of the main sponsors for CER. All UNIDO requirements are met by CER. Innovative Chemical Solutions Project was executed during the years of 2013 to 2014, and it was a small project with a budget of 60,000 Euros.

Resources always take a while to arrive and usually before activities begin with the proper support of the CER, as the timeframe is short to achieve the goals. This project lasted 1.5 years.

CER prefers to work with a company that has already incorporated some ideas, criteria in line with the project. The work of CER and UNIDO are important because it pushes them to start into the implementation.

CER has identified that the cost is the main obstacle for the companies. So CER usually offers them support and assistance in all of the implementation. But it doesn't always work.

CER always tries to connect all its services that CER offers here in order to help the companies to be better. Three of the companies that were part of the project have implemented the Green Credit Trust to change the technology that they were using, and currently one is implementing a new technology in the project.

Effectiveness

The Innovative Chemical Solution project contained four key phases for the NCPC of Perú: i) selection of enterprises, ii) assessment and elaboration of case studies and iii) toolkit presentation and iv) closing of project and preliminary proposal for second year.

About the selection of the companies, CER made a call through the National Society of Industries (SIN), where CER contacted many companies and a group of interested companies were identified. After the change of the sub-sectors that UNIDO decided, CER had to start making a second call process where 5 companies with which a confidentiality agreement was signed were selected.

The second phase of the project consisted in the pre assessment process through the formats given by ISSPRO and CSD Engineers, visiting to the companies selected and elaboration of assessment reports. ISSPRO consultant visited three of the enterprises and trained the NCPC for the assessment with the proposed formats.

After the elaboration of the assessment reports for the five companies, the NCPC presented the innovative options and its feasibility was discussed with the companies.

In some cases, implementations were not feasible in the time frame and were left up to further analysis in the following months. Two companies were not able to implement improvement, change in decision makers or no influences of the technical group (from the company) over decisions were the two major constraints for the implementation. As next step, monitoring of implementation was realized for the remaining three enterprises. Four success cases were presented during the Expert Group Meeting in Vienna.

In the third phase, the workshop was realized in two half days and specific topics were prioritized. Forty participants from different chemical industries, the committee of National Society of Industry, Environmental Ministry experts and independent consultants assisted to the workshop.

In August 2015, CER was doing a National Contest of Innovative Chemical Solutions, to promote the implementation of modern models of good management practices to help chemical companies on its way to a green industry and sustainable management of chemicals. The project will provide companies with technical advice on chemicals management, financial guidance to implement their management plans, to be recognized for their environmental commitment and disseminate their success stories in national and international networks.

Impact

CER/Grupo GEA worked with 5 companies in these 3 sectors: painting, personal care and detergents. CER team developed a case on a painting company J&S Ferretería Industrial (Universal Colors) that is a typical size for Peruvian companies. The main aim of researching was to eliminate toxic substances in painting. The company substituted some products in its formulation of industrial paint and generated a new market for ecological products. This achievement was aligned to the company's objectives, so the project helped them to develop a new innovative product.

The researching consist an innovative assessment to determine the three basic technical components of increasing material and energy efficiency to produce more products with correspondingly less waste and pollutants, a reduction in toxicity of material used and safety and risk reduction. The Universal Colors Company developed an alternative formulation, water-based varnish for metallic surfaces. This product was presented as a substitute for common varnishes available in the national market, which have a high solvent content and are considered hazardous for its volatility and inflammability.

The environmental benefits of this new product using clean technology reduces consumed gallon of solvents by 75% as production time of 4-1 hour and the cost is only increased by 16%. Related to personal care (Unique, Peruvian company), these companies substituted some products for cleaning. UNIDO was comfortable with the results.

The project does not have a lot of time to Implement Measures. So we tried to find companies RECP That Already Had the topic in its veins. This is what we normally has to do In These kinds of projects in order to achieve our goals. Unique is a prestigious company and Universal Colors is motivated.

Sustainability

CER will continue the monitoring and specific assessment of implementations for participant enterprises of year 1. CER will collect the final results of cases studies implemented in 2014 and pending implementations up to 2015.

The experience gained of year 1 will enable to CER to support in the national initiative providing to the Environmental Ministry (MINAM), Production Ministry (PRODUCE) and the Director of Health (DIGESA) with real case studies related to reduction and substitution of chemicals and also with feedback regarding the actual challenges and necessities of SMEs in the detergent & personal care and paint sectors.

Moreover, the variety of project held by CER will help to incorporate business components into participant enterprises of year 1 and, in the future, year 2.

Project Coordination and Management

UNIDO gave the technical support and is available for any question or consult. The main support from UNIDO was provided technical assistance, gave tools to implement the projects correctly, and provided national and international training on the methodology frequently.

About the synergies within the frame of the Innovative Chemical Solutions Project. CER has supported and promoted the green fund “Green Credit Line”, providing information and specific assessment to enterprises in which technology reconversion was identified as potential option.

CER received the technical support from UNIDO and the centre helped to disseminate the Chemical Leasing model and made the presentation over the model and specific assessment realized to interested enterprises (from the project). And in the second year, the diffusion of Green Credit Trust funds and Chemical Leasing initiative will continue as well as technical and feasibility support for the implementation; also innovative funds (such as FINCyT) will be reinforced for enterprises that are interested in mid-term projects related to investigation.

Lessons learned and recommendations

- A general (widely) terms of reference can generate further problems. UNIDO must specify the areas of work before starting the project and respect.
- Because of the short duration of time given for the project, and to ensure the achievement of its objectives, It must be very careful in selecting companies, and involving companies that already have experience in RECP.
- The assessment documents and suggested assessment process are too long and not very practical. A common data base (manage in virtual platforms) should contain the requested information of CER or providers of information (catalogs, MSDS, technical data sheets, etc.).
- The toolkit should have a Spanish version to facilitate the participations of all the stakeholders. The same recommendation for the workshops. During these events should be showed study case in order to stimulate participation and feedback of companies.

- The project has to work together with companies, communities, and consumers who demand products and services that have relation to cleaner and sustainability productions.
- It is necessary developing awareness themes and to diffuse the benefits of Green industry, and involve the society to become more safety-conscious and become aware of goods with toxic components.

Contributions to WS8: Innovative Business Models

Respect to Innovative Business Models. CER/Grupo GEA has realized actions related to RECP, linked to the promotion and dissemination of the Chemical Leasing (ChL) concept. For the developing of the project, CER had the technical assistance from UNIDO but CER didn't receive financial support.

On the other hand, the eco-innovation project has had the technical and financial support from UNEP. CER/Grupo GEA has not received funds from UNIDO for to take part in this project.

Programme Formulation

The formulation of the programme is designed with very stringent standards and methodologies, which to be applied to the national reality, generate barriers and difficulties for their implementation, especially for the type of information that have to be required and the confidentiality of the process in the industries.

It is necessary to consider the features and conditions of the national industry to adapt the methodology and make possible the dissemination and appropriation by businesses.

Programming and Planning

Perú has not been selected to implement pilots in this line of ChL, and therefore, Perú has lacked funds to implement them. The support received from UNIDO has been the trainings for all the professionals of CER, who have spread the information in different enterprises through workshops and events.

CER has managed to motivate the participation of two medium-sized companies their involvement, and even CER has participated in the Global Chemical Leasing Award 2014.

Ownership and Relevance

Chemical leasing project is a new concept in Perú and there is no experience in this regard, therefore, the importance of the issue is to have introduced the concept at various private companies and governmental actors and sow the interest to create such partnerships. Although, this initiative is still limited but it provides us an indicator to know if there is interest for its implementation.

Since receiving training in ChL, companies are interested in the continuation of such initiatives. Therefore, they are willing to support the implementation of ChL with their own resources.

Efficiency of Implementation

Chemical leasing project is promoting by CER, without funds from UNIDO. As I mentioned before, CER just has received the technical and training assistance in this topic.

CER called to all the companies that had worked in Innovative Chemical Solutions Project, to participate in ChL, by this way CER undertook and ensured to the companies that already had a previous experience in RECP. There was not funds for implementing ChL so CER could cover the expectations about the programme. The training in ChL to CER was useful to promote and disseminate the Project.

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Perú wasn't selected by UNIDO for developing the Chemical Leasing project. UNIDO had not provided clear reasons of why Perú was not selected. The training in ChL that CER received from UNIDO in Vienna was about how to develop some cases in chemical leasing.

Effectiveness

The achievements in Chemical leasing - ChL detailed below. It is noteworthy that these activities were carried out with funds:

It was possible to promote the concept of ChL, in private companies through various workshops:

- Workshop on ChL, referring to cosmetics industry with UNIQUE technical team
- Workshop to FARMEX (agriculture sector) for its technical and commercial team
- 2 workshops in Industrial Sector (SNI)
- Presentation of CHL in a workshops on Cleaner Production to SME (2014)

ChL information was also posted on the web page Saicom.

CER trained 85 people, 45 technicians and managers from SMEs and approximately 40 specialists, consultants, public servants and the general public.

It was possible to connect 4 with Aglab UNIQUE companies and society FARMEX Agrícola Olmos.

- For Olmos Farmex and Agricultural Society was presented to the Chemical Leasing Award 2014, although it is certainly not the prize won, it was possible to spread the concept of CHL and motivate other companies.
- While Aglab UNIQUE and are in the process of implementation ChL in Their ongoing business model (CONTRACTS design).

Impact

The chemical leasing project succeeded in introducing the new concept of ChL in Perú, and a group of companies are motivated to participate in implementation of the methodology. ChL interest and methodology to implement spread was generated.

The value obtained by CER was the strengthening of the relationship in 2 companies. FARMEX had the opportunity to introduce itself to other company. FARMEX is a big company, networked with other users, providers (SMEs).

The achievement obtained was that FARMEX wants to continue working to achieve some chemical leasing project.

Currently, the project is on stand-by. Maybe it could be used to apply for any funds related to chemical leasing development.

On the other hand, CER worked with UNIQUE that was also a company that participated in WS#6. UNIQUE provided a chemical cleaning company, and showed its interested to implement Chemical Leasing.

Innovation

ChL is a new concept in the country, therefore, is innovative because there is much potential applicability in their methodology to be developed.

The tools and methods provide innovative ideas for the development of projects under the RECP approach.

Sustainability

There exist interest from several companies to apply ChL, and continue with the incidence in ChL, however, to develop and implement pilot experiences, it is very important to have the technical and financial support of UNIDO.

CER continues the dissemination of the concept of ChL as part of the activities being carried out with firms operating and participating in forums.

CER expects to be selected in the next phase to develop the draft ChL in Perú, disseminate and implement pilots to serve as references and generate a multiplier effect on other companies and business associations.

Project Coordination and Management

Perú was not selected to implement the ChL project, though progress has been made in several aspects, especially in incorporating the concept and motivation for companies to engage in this process. Lacking funds to implement the CHL project, CER has used the platform of other projects to generate significant synergies.

It is important to consider Perú to develop the second phase of the project because of its previously experience executed in this topic.

Lessons Learned & Potential Recommendations

The toolkit of UNIDO should be more practical. It has a structure but it should be more flexibility.

CER understand that ChL has a methodology; however, the information requires many companies did not have it. And it can be difficult to get the requested information. For that reason, it is hard to comply with the structure.

It is not enough to spread a ChL concept, you need to implement pilot projects to serve as references and have power scaling.

Contributions to Eco-Innovation

UNEP's Eco-innovation Project aims to develop local resources and capacity for eco-innovation in emerging and developing economies. It specifically targets Service Providers for Resource Efficiency and Cleaner Production (RECP), other business intermediaries in order for them to provide technical assistance to small and medium sized enterprises (SMEs).

The project seeks to address various conditions that need to be in place for eco-innovation: developing the business case for eco-innovation, enhancing the policy context, including methods for acquiring and developing technology, building technical expertise and capacity to adopt eco-innovation, and fostering regional and international collaboration.

Programme Formulation

In Latin America, the Project is executed in Colombia and Perú. The Project involves two components. The first one is referred to the technical component, and the second one is referred to the policy component. Each component has its toolkit for the implementation. The toolkits were developed based on the experience of implementing such programs in other countries. It is necessary to consider the characteristics and conditions of domestic enterprises and ongoing processes.

In the project it has prioritized the metal mechanics sector for the development of this pilot was made taking into account the situation of the sector in the country, and given the same priority by the government.

Programming and Planning

For the execution of the program is has a National Committee, which was comprised of representatives from government and the private and academic sectors. Therefore, all actions developed under the project are validated and coordinated among the relevant actors.

It is considered a technical and a policy components, technical referred to the implementation of the pilots at least 5 companies and policy-oriented integration of eco-innovation in national development policies.

Ownership and Relevance

Eco-innovation is a concept promoted by UNEP, which promotes the incorporation of sustainability in all business operations, based on the life cycle approach and in cooperation with stakeholders in the value chain. It involves changes or new solutions

for products, processes, marketing strategies and organizational structures that lead to better performance and competitiveness.

Perú is one of two countries in the region that has been selected by UNEP to implement Eco-innovation project. The project lasts two years, and y has the financing that will enable the implementation of at least 5 pilot projects and the proposed incorporation into national plans and policies.

It is a new concept in Perú, which does not mean that there is no experiments carried out by companies in the context of Cleaner Production, Eco-Efficiency and Sustainable Production and Consumption, which comply with the characteristics of eco-innovation.

There is adequate involvement of the various stakeholders: public, authorities of production and environment sectors, science, technology and innovation and the private sectors through the National Society of industry and private organizations and academia.

Efficiency

Eco-innovation project has an implementation period of two years, with funding of USD 320'000, allowing the implementation of at least 5 pilot projects and the proposed incorporation into national plans and policies.

CER started the project in December 2014. CER signed the contract in March 2015. The work goes Until September 2016.

The project is in the first half of implementation and already has identified companies that will work with pilot projects. The funds come from UNEP and are sufficient to achieve the objectives.

Effectiveness

As mentioned above, the project has 2 components: the policy and the technical

- Involves 5 companies in the metal mechanics sector. The main goal is to develop a new business model for new products by the approach of Life cycle. The toolkit orientates to develop the competitiveness, revenue of the enterprises with the output as improving the social impact, economic and environmental impacts.

- In the policy side, the Centre created a Steering Committee: 11 institutions belong (4 universities, 3 Ministries and private associations). Each month, the Steering Committee is convened by CER to update the progress of the policy component under the framework of the project. CER is the Technical Secretariat. Now, the Steering Committee is evaluating the policy roadmap to approve.

The idea is to mainstream eco-innovation into different national programs, into the strategic processes such as the Industrial development based on diversification. The goal consists introduced eco-innovation into this process, because this is where the government is putting money.

For supporting UNEP in eco-innovation initiatives. CER has created an institutional platform in which pretend to include all success cases and the idea is that this platform continues to operate a longer period than the project.

Impact

Innovation is recognized by governments as a catalyst for economic development, and one of the most important to improve competitiveness in the long term factors. Eco-innovation is a new concept promoted by UNEP and will contribute to the achievement of national objectives within the framework of competitiveness and sustainable development.

The project will engage in ongoing processes and enhance the work started in the field of sustainable consumption and production, green economy, eco-efficiency among others. As for the pilots, the main idea is to apply the ideas in the Eco-Innovation manual.

In this phase, CER has 20 companies that had to pass a 2 pre-evaluation (filters). At the end, CER will select 7 companies (at minimum of 5) with a huge potential in eco-innovation.

Sustainability

In relation to eco-innovation, sustainability strategy goes through public policy to incorporate the theme of eco-innovation and have technical, legal and financial instruments to promote the implementation of projects with these characteristics and on the other hand, achieving execution successful pilot projects to serve as a reference and can climb to its counterpart in sectors other metalworking and other regions.

Project Coordination and Management

UNEP technical support and close monitoring facilitate the implementation of the project. It is expected to generate significant synergies with other projects.

In parallel, CER is executing with Sustainable Public Procurement Project that involve the Ministry of Environment, Ministry of Finance, and a National body. And also in SPP Project has formed other Steering Committee. The aim of the project is to make Synergies between Eco-Innovation and Public Procurement.

CER is going to work the academic aspect with Catolica University. The concept is to share parts of eco-innovation tools with students (industrial engineers), and involve students to apply the toolkit in the pilot enterprises.

CER has put a database of service and technology providers called "Catalogo de Tecnología Limpia" where users can find products and services that had been manufactured under a eco efficiency criteria. It is useful to move the Green market. And also, CER works with the marketing/communication departments of our counterparts (eg Scotiabank).

Lessons Learned & Potential Recommendations

- It is necessary to internalize the concept of eco-innovation, formalizing its definition for it to be adopted by the public sector.
- It is necessary to use instruments and leverage, financing and incentives in place to promote the application of eco-innovation.
- The articulation of actors is key to a committee, gives strength, creates commitments and ensures the success of the actions.
- It is important to create synergies with related projects to avoid duplication of work and achieve the goal, combining various partnerships and actors.
- The sustainability of eco-innovation work at the end of the project period will depend on how you work to internalize the concept and how it spreads among the beneficiaries.

Conclusions and recommendations

Overall, the experiences that have been developed in the CER through the implementation of RECP Program in Perú, has showed strengths and weaknesses. The strengths that have been rescued as a result of this assessment are that the RECP Program is well known in various organizations, and is recognized by various actors. Government representatives said that activities done are an important input because they show successful experiences and provide inputs to climb into concrete policies that contribute to the Cleaner Production. CER/ Grupo GEA is a strategic partner of the government of Perú, and the UNIDO / UNEP are strategic and key partners with a shared vision of green growth.

The beneficiaries have recognized the importance of their participation in the RECP Program, and the benefits they have earned as a result of their participation. In general, the technical assistance provided by CER has been very valuable and important, in many cases the changes have been implemented with the companies' resources or by engaging with existing financing public and/or private. However, the importance of advance §§financing mechanisms to facilitate the efforts made in the diagnosis and design technologies do not remain on paper and can viabilizarce (materialize) is recognized. In this sense, we should explore the facilitation of financing through the WS-7 RECP framework financing.

The program's contributions have been important but not sufficient. It is recommended to analyze the time duration of projects to ensure the adequate fulfillment of the workplan, to generate induction processes, selection and implementation of activities.

RECPnet needs to be repowered and generate a strategic change to be an useful, active and dynamic tool for its users; on the contrary, it runs the risk of not being operational.

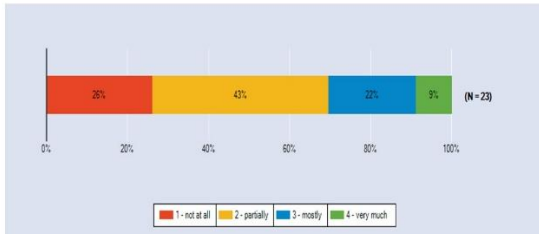
CER has proved a National Centre for Cleaner Production efficient and effective in its actions, has a team engaged in constant training, have clarity of objectives and manages related projects with RECP Program that enriches management and creates interesting synergies with different stakeholders to optimize results.

8.10. Annex 10 – Results of RECPnet Survey

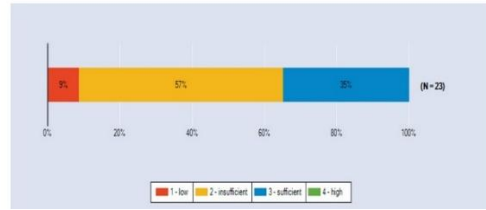
A survey was carried out during August-September 2015 with the 70 members of the RECPnet, involving both quantitative and qualitative dimensions. The quantitative responses have been aggregated here for the 27 responses received, representing a 38% response rate.



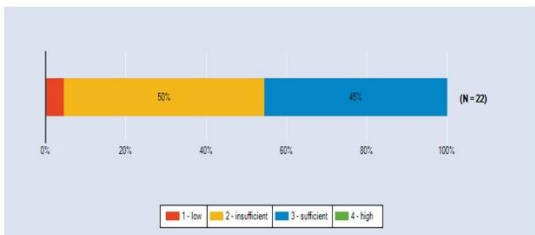
With respect to the function of Advocacy: Did RECPnet achieve (more) recognition for the importance of RECP in your country?



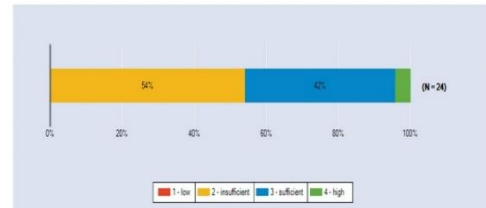
How do you rate the usability of the current RECPnet's Knowledge Management System (KMS)



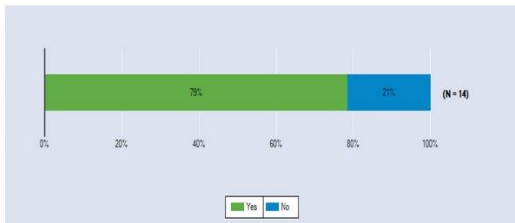
How do you rate the relevance of the information available online on the KMS?



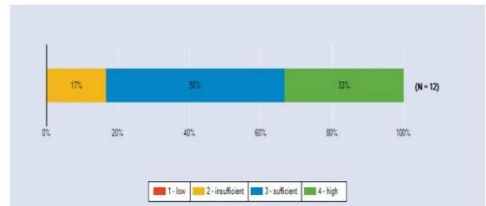
How do you rate the relevance of other (non-UNIDO) information on RECP available online and offline?



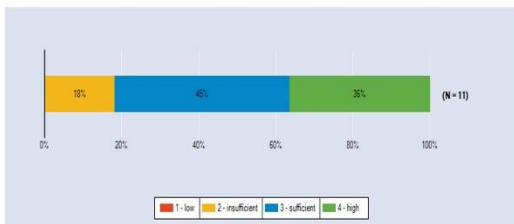
Do you have any report(s) available that document the implementation, results, and the possible impact of activities that have been undertaken in this domain?



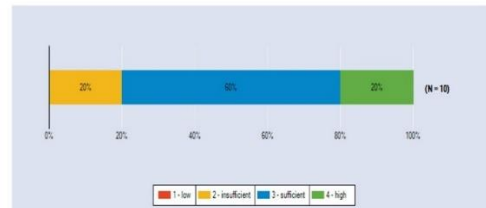
Efficiency of the Project design, management, and resources to execute the envisaged activities and deliver the outputs and outcomes required for the target groups in your country?



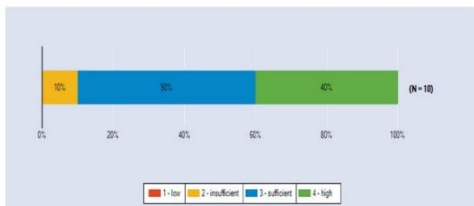
Effectiveness of the Project to achieve the outputs and outcomes with good quality and as appropriate for the target group



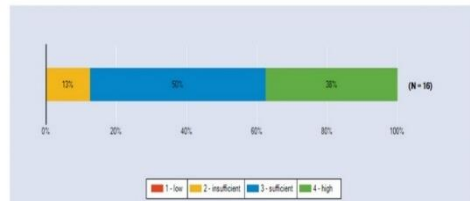
Impact of the Project in environmental, social, and economic terms (for WS3) and ongoing activities by the target group



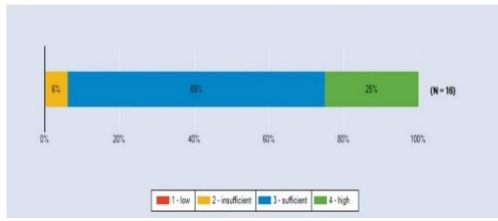
Sustainability of the Project results now or expected in the near future through sustained capacity, proven benefits for the target group and follow-ups perceived in your country as a result of the Project



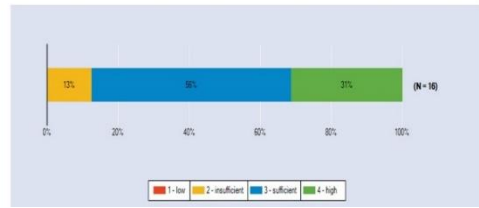
Impact of the Project in environmental, social, and economic terms (for WS5) and ongoing activities by the target group



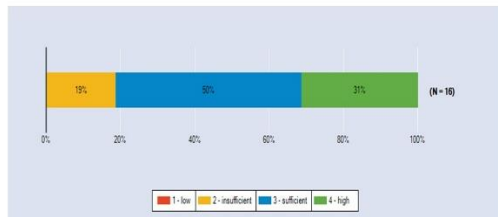
Efficiency of the Project design, management, and resources to execute the envisaged activities and deliver the outputs and outcomes required for the target groups in your country?



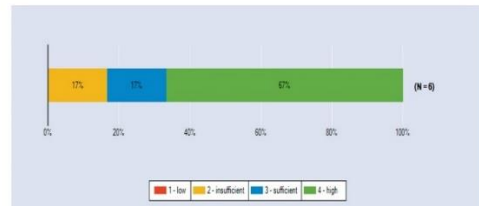
Effectiveness of the Project to achieve the outputs and outcomes with good quality and as appropriate for the target group



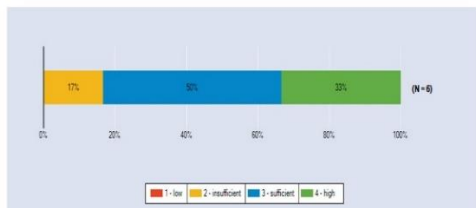
Sustainability of the Project results now or expected in the near future through sustained capacity, proven benefits for the target group and follow-ups perceived in your country as a result of the Project



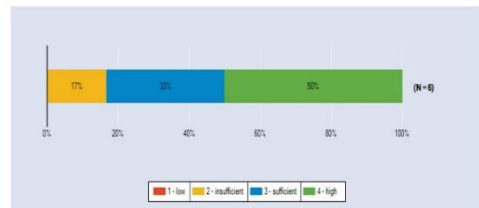
Impact of the Project in environmental, social, and economic terms (for WS3) and ongoing activities by the target group



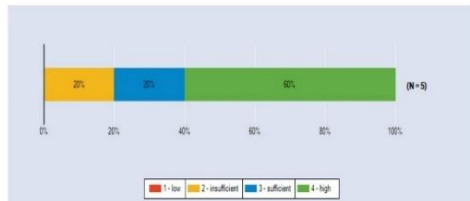
Efficiency of the Project design, management, and resources to execute the envisaged activities and deliver the outputs and outcomes required for the target groups in your country?



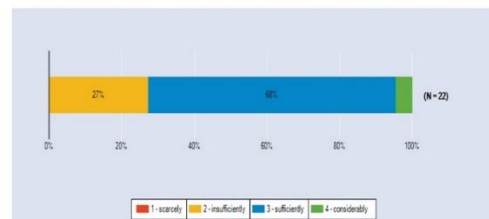
Effectiveness of the Project to achieve the outputs and outcomes with good quality and as appropriate for the target group



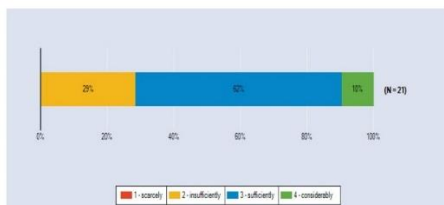
Sustainability of the Project results now or expected in the near future through sustained capacity, proven benefits for the target group and follow-ups perceived in your country as a result of the Project



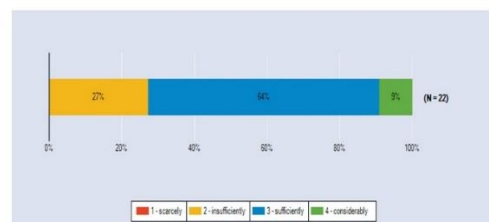
To what extent have the views, perceptions, and experiences of the target group (SMEs) been considered, addressed, and incorporated into the program design and addressed in program implementation?



To what extent have the knowledge, experiences, views, and capacities of the implementing partners (RECP service providers in beneficiary countries) been considered, addressed, and incorporated into the program design and addressed in program implementation?



To what extent have the views, perceptions, and experiences of national stakeholders (government, business organisations, civil society) been considered, addressed, and incorporated into the program design and addressed in program implementation?



8.11. Annex 11 – Detailed Conclusions and Recommendations for UNIDO-UNEP, SECO, and RECPnet

Topic	Overarching conclusions	Triangulated findings/conclusions	Recommendations UNIDO - UNEP	Recommendations RECPnet	Recommendations SECO
1) Programme design and Formulation	<p>1. Complexity for UNIDO-UNEP from dual role as a Network Developer and being an Implementer (giving funding through contracts) where the objective is to get results back to achieve programme objectives</p> <p>2. Programming and design is often ad hoc and seems to be compromising between SECO requirements on the one hand and overall integrated programme requirements on the other hand. Choices made on this are not transparent.</p> <p>3. Programming seems to be more oriented towards perfecting RECP scoping & tools and detailed technical implementation, not towards getting upscaling and mainstreaming out of the current funding.</p> <p>4. Programme funds</p>	<p>High complexity of the design due to many changes</p> <p>A shift was made in the overall program design from the overall 2009 programme to the dedicated SECO programme: Most UNEP-related programme elements were deleted, some of these elements such as innovation were restructured into innovative business models</p> <p>Many subsequent shifts in design (since 2009); continued in the rolling programme each year; can be partly assigned to 'mission drift' due to influence of SECO, partly can be seen as adaptive management due to changing circumstances</p> <p>No documentation from SECO to check the influence of policy goals of Swiss Government on the design of the programme</p> <p>RECP service delivery was not funded, including ongoing support and all activities on Resource Efficiency</p> <p>The choice for Cassava as key</p>	<p><i>Key recommendations:</i></p> <p>Separate role of being Network Developer from that of being an Implementer</p> <p>Merge programming of WS 4, 7, 8: these are all methods & tools; link them to be used in service of the larger technical WS 3, 5, 6: connect Chemical Leasing to WS6, Industrial Symbiosis to WS3, ESCO could be a service for WS5 (bio-waste: rice, coffee).</p> <p>Engage in more active cooperation with UNEP to include Service Delivery, Resource Efficiency and the policy and innovation activities within a joint framework.</p> <p>Refocus programming/ develop dedicated logframe of remaining phase of Programme more clearly on impact, providing the basis for future upscaling and mainstreaming</p> <p><i>Additional recommendations:</i></p> <p>On the implementation side: reformulate RECP Programme so UNIDO & UNEP can use any Centre in any part of the</p>	<p><i>Key recommendations:</i></p> <p>Undertake an assessment of 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.</p> <p>Use RECPnet to emphasize need for further cooperation between UNIDO & UNEP. From that, the Network will be more able to develop programming to address institutional development needs as well as individual capacity-building</p> <p>Become much more proactive and independent; formulate and design own programme and search for donor funding</p>	<p><i>Key recommendation</i></p> <p>Reduce direct hand on influencing program 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 adapted to emergent interests and opportunities</p>

	<p>were/are being used as seed money for additional projects (e.g. GEF)</p> <p>5. The overall original design for a multilateral was there in 2009, but the funding that was available was limited to 1 donor; this has had implications for the whole program. Funding only covers 20-30% of the original design, while this is still the basis of the 2012 work programme. Meanwhile, in practise, this became a bilateral program and altogether, leading to a fragmented design for the workstreams</p> <p>6. The Programme was formulated like a mosaic where additional donors & projects could fit within a bigger framework; the time to get such additional funds & projects was underestimated</p>	<p>sector for WS5 is not supported by the design of the programme but is influenced by WS3 developments.</p> <p>Programme description still based on generic 2009 joint UNEP/UNIDO version, logframe not adapted, thus outputs are difficult to assess towards impact because no indicators are formulated</p> <p>Many of the NCPC centres are positioned to be effective actors/catalysts in playing an important policy role in their country; two conclusions: the RECP Programme is not sufficiently supporting them on this since these aspects (are not included in the 2012 workplan) and the Centres themselves have not made sufficient proactive use of the available resources (Green Industry Platform)</p>	<p>world to do any assignment to reach the needed objectives.</p> <p>Strengthen NCPC centres according to the founding vision by injecting more resources, more aspects into ToRs to seriously work on the structure and governance aspects of the Centre; use interventions like the HCDI but not so fast-paced for implementation; leverage virtual platforms and e-learning while also maintaining a face-to-face element to build relationships, trust, and do coaching</p>		
2) Programming and Planning	<p>1. There have been delays in many activities of the programme, due to external reasons and due to complexities of contracting and payment related procedures within</p>	<p>Many delays in planning and execution of the various workstreams</p> <p>The content or focus of workstreams was often changed during the rolling planning from</p>	<p><i>Key recommendations:</i></p> <p>Explore possibilities to extend the programme to end of 2017 to be able to deliver successful outcomes and present impact and sustainability</p>	<p><i>Key recommendations:</i></p> <p>RECPnet global, regional chapters and/or thematic groups: provide UNIDO-UNEP with an independent programming of priorities</p>	

	<p>UNIDO (SAP implementation was a major reason).</p> <p>2. The remaining period for several workstreams seems short to achieve the outputs and have the impact and sustainability to contribute to the objectives in a satisfactory way.</p>	<p>year-to-year due to external reasons/donor pressure and new international and national developments</p> <p>This reflects partly adaptive management, which is good, but partly programme drift, which should be avoided.</p> <p>The strategic rationale behind the focus change/shifts was not always evident</p> <p>Examples: 1) shift in WS 4 from methods for textile and leather sector to GHG measurement methods; 2) in WS5, the choice for the Cassava pilot</p>	<p>Do a real planning of what to achieve based on current resources & remaining timeline; describe outputs, deliverables to reach some objectives.</p> <p>Strengthen linkages amongst workstreams; streamline by merging smaller WS 4,7,8 and dedicate efforts and remaining resources to WS 3, 5, 6.</p> <p><i>Additional recommendations:</i></p> <p>Formulate outcome/impacts in <i>SMART</i> terms; similarly align rolling biannual SECO reporting</p> <p>For WS3: give priority to finalise/publish the study and primer. Reformulate strategy for pilot into cooperation with GEF and bilateral EIP projects. Decide on a USP of UNIDO in these projects & follow through</p> <p>For WS5: decide on a priority of technology/sector activities and maintain this focus.</p>	<p>and preferred activities</p> <p>In the integral area of RCEP policy and innovation, formulate dedicated plans, transforming the spirit of the decision-making process into a joint effort.</p>	
3) Ownership	<p>1. Ownership by RECPnet members is not experienced as high as it was in the beginning of the programme</p> <p>2. After continued effort to shift ownership, the Centres still see UNIDO (UNEP) as the one(s) leading the way.</p>	<p>The RECP Programme is very much top-down driven and “controlled” by UNIDO/UNEP</p> <p>Perception of limited opportunities for real participation of Centres, which have varied competences & maturity</p> <p>Prevailing attitude: RECP Programme is a source of funding</p>	<p><i>Key recommendations:</i></p> <p>Earmark WS1 funds for the RECPnet Executive Committee (ExCom) to decide on that budget.</p> <p>Make ExCom membership a paid position, to increase priority on this work and enable people to justify time allocation</p>	<p><i>Key recommendation:</i></p> <p>To deepen ownership of & contribution to RECPnet, explore options and implications of establishing RECPnet as an institutional entity with the possibility to act in collective manner (e.g. in global/regional processes, tenders).</p>	<p><i>Key recommendation:</i></p> <p>Increase funding for RECPnet (and prioritize this aspect in any future funding cycle) to support continuing network development,</p>

	The main attitude remains that the RECP Programme is a source of funding for the Centres	for the Centres The Centres usually agree to contracting of what they see as an under-financed programme activity; the Centres are contributing in-kind There are differing views regarding the desired role of the RECPnet Secretariat	to national stakeholders. <i>Additional recommendations:</i> Consider transferring the Secretariat to ExCom, paid by funding from RECP Programme, independent from UNIDO-UNEP. Develop the phasing strategy for UNIDO/UNEP's direct involvement in RECPnet.	<i>Additional recommendations:</i> Undertake elections to paid ExCom positions (opened beyond Directors) Facilitate ExCom to take on network development and networking functions	institutional development and strengthening of capacities vis-à-vis policy role of Centres and service provision that supports the implementation of change & building RECP culture
4) Relevance	1. When activities are seen by the Centres as the right thing at the right time, then these are seen as highly relevant (e.g. EIP study in China). But if it is seen as UNIDO/UNEP just in an implementing role trying to get work done, then it is more so perceived as a burden (e.g. Rice, Coffee) 2. Relevance is overall sufficient-to-high but programme activities are often mostly utilized as a funding mechanism for individual Centres	High expectations on many WS but outcomes have not materialized, interest is waning.	<i>Key recommendations:</i> Establish mechanisms to be more aware of which centres need what at which period in time. Adopt a more participating orientation when it comes to selecting sectors, defining criteria; more attention to local constraints & opportunities. <i>Additional recommendation:</i> Explore options for a model of more open call for proposal; with simpler procedures.	<i>Key recommendation:</i> Be more active in identifying / communicating to UNIDO & UNEP which activities and resources could be leveraged to develop and strengthen the envisaged multiple roles of Centres (policy advocacy, service provision, Centre of RECP excellence) <i>Additional recommendation:</i> Increase understanding of function of programmatic activities of RECP; distinguish this from drive to fund own Centres	<i>Key recommendation:</i> Beware of putting UNIDO/UNEP in position of doing significant adaptive management to respond to emerging thematic and geographic priorities linked to political objectives
5) Efficiency	1. Moderate efficiency, good technical quality of intermediate outcomes	Large focus of scoping studies, by predominantly Swiss experts. Some of them take 3 years to finalize which lowers efficiency.	<i>Key recommendations:</i> Set goals for number of companies to be actively involved in the program and	<i>Key recommendation:</i> Elaborate a long-term strategy for the network,	

	<p>2. Technical quality of reports is good: good consultants, good experts. Reporting skills are sometimes moderate.</p> <p>3. Focus on technical quality seem to hamper efficiency. Efficiency should go up by multiplying the number of cases & assessments, pilots faster</p>	<p>Little compilation of reports, except in WS6. All experts report primarily on their specific requirements to fulfil ToR.</p> <p>WS 3EIPs: Until now, low efficiency, only description assessments of the current parks plus scoping study. Proposal for 1 pilot in China came out, still waiting for implementation. Vietnam EIP project started in 2014 financed by GEF (USD 3.5 million) co-financed by SECO (USD 1 million and 3 million through Green Credit Fund) and national co-financing around USD 38 million</p> <p>WS5: relatively low – end up with several as yet unrelated technology documents, and 30 company assessments.</p> <p>WS6: high efficiency, dedicated deliverables to the output for a reasonable price, delivered what was promised.</p> <p>WS 4,7,8 had moderate (4) to low (7,8) efficiency.</p> <p>Countries involved in implementing activities give a high rating for efficiency of their workstream.</p> <p>Real efficiency on project level of</p>	<p>deliver results within the current budget, leading to impact criteria.</p> <p>Stop scoping and publish. Now implement in a larger number of enterprises.</p> <p><i>Additional recommendation:</i></p> <p>Publish WS 7 and 8 scoping and connect to relevant UNEP activities where possible.</p>	<p>regions, and individual centres with respect to the efficiency of projects funded by the RECP Programme and assess priority of involvement in these projects</p> <p><i>Additional recommendations:</i></p> <p>Individual centres: say “no” when a Call for Proposal or request for engagement does not make sense according to your strategy and plan for development, opening the door for an interactive dialogue with UNIDO/UNEP to identify what would make sense</p> <p>Measure and evaluate (quantitative, qualitative) own contribution to RECP Programme activities</p>	
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		RECP centres involvement is probably much lower due to own contribution to the funding of UNIDO projects.			
6) Effectiveness	1. Effectiveness is low-to-moderate for virtually the whole programme. Outputs are not detailed and quantified (it was not in the initial design to do so), and since the logframe has not set objectives for this nor develops criteria, it will be very hard to measure effectiveness	<p>Growth/development of network has been highly effective</p> <p>Development of KMS had low effectiveness, and it can be questioned, in light of current rapid growth in availability of data & information, if this will be improved in comparison to other dedicated portal/information system initiatives</p> <p>Development of pilot industrial cases in limited numbers– question about extent to which this is applicable and will lead to effective outcomes</p> <p>Effectiveness of scoping studies is low on average due to delays and consecutive low relevance on industrial projects (except WS6)</p> <p>WS5: Compared to ongoing work elsewhere in the area of climate mitigation, bio energy and biomaterials the effectiveness is probably low</p>	<p><i>Key recommendations:</i></p> <p>Understand the effect of providing delayed inputs to partners and projects, for the part caused by UNIDO-UNEP and take appropriate action; minimize delays in the next 2 years (goes back to management, administration)</p> <p>Improve effect of all scoping studies in all workstreams by quickly publishing and follow-up on use and get feedback</p> <p><i>Additional recommendation:</i></p> <p>Take a strategic look at further expansion of the REPC network versus diversification into cooperation with highly effective partners and networks</p>	<p><i>Key recommendation:</i></p> <p>Form strategic alliances with a selection of the bio energy/climate innovation initiatives for improved effectiveness</p>	
7) Impact 8) Sustainability (merged)	<i>Impact</i> is considered moderate to low until now. Typical outputs toward the final beneficiaries are around 30 companies per workstream because of	<p>Impact & sustainability of KMS (WS2) is currently very low; remedial action has been taken.</p> <p>WS3 impact and sustainability depends on USP of UNIDO-UNEP</p>	<p><i>Key recommendation:</i></p> <p>Decide on level of impact achievable in remaining programme period; develop strategy for WS 3, 5, 6 to</p>	<p><i>Key recommendation:</i></p> <p>Define what services based on the current portfolio of RECPnet projects have the highest potential for</p>	

	<p>detailed hands-on involvement instead of leveraging and combining with other and ongoing initiatives.</p> <p><i>Sustainability:</i> The results are often networked or in collaboration with other partners</p> <p>Catalysing of additional activities (especially under GEF) is considerable.</p>	<p>and cooperation in larger scale programmes.</p> <p>WS5 has large impact potential: CP related to bio-energy in developing countries, but implementation still is moderate; good impact not yet confirmed. (refers to technology/industry application in industry, as stated before)</p> <p>WS6 has potential for impact: formulation, implementation well defined; consistent methodology to assess companies and identify CP improvement options and innovative technologies, applicability in emerging context. Connected to international networks for sustainability</p> <p>Impact and sustainability of WS4,7,8 are low</p>	<p>involve a realistic number of companies in implementation to increase impact.</p> <p>View the Centres' challenge to retain talent as a success indicator of the Programme, spinning off sought-after RECP-qualified professionals as change agents in government, industry or as independent consultants</p> <p><i>Additional recommendations:</i></p> <p>Connect more deeply with other actors to find synergy and replication/multiplication of RECP approaches in other programmes and projects (this requires resources to do so, i.e. time, money, and expertise)</p> <p>Consider developing KMS to a certain well-defined level during the remaining programme level and hand it over to another suitable information/knowledge portal. Define handover strategy in the coming period.</p> <p>Evaluate cooperation with the Green Growth Knowledge Platform in Geneva</p> <p>Based on USP of UNIDO with respect to EIP, develop strategy for continued involvement in mid-term EIP programmes and projects.</p>	<p>replication and/or synergy with other activities on the regional/individual level of the RECP Centres.</p>	
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9) RECP Network	<p>1. RECPnet is not a coherent single actor or entity but it is treated as if it is</p> <p>2. Varying types of entities, competences, maturity exists within RECPnet</p>	Different levels of quality, involvement and interest of the RECPnet member organizations	<p><i>Key recommendations:</i></p> <p>Find lessons learned, typical pitfalls, identify KSFs through exchange with existing network initiatives</p> <p>Develop in-house or buy-in expertise on network development</p> <p><i>Additional recommendations:</i></p> <p>Take more notice of diversity of the members in building and sustaining the network</p> <p>Work towards another division of members based on excellence & quality of outputs, thematic interest, in addition to regional divisions and membership types</p> <p>Work with the ExCom as an equal partner to develop and support network development</p>	<p><i>Key recommendation:</i></p> <p>Make the network come alive: notice and seize opportunities for collaboration and joint activity</p> <p><i>Additional recommendation:</i></p> <p>Develop simple guiding principles to enable decision-making that can lead to deepening engagement and ownership</p>	
10) Upscaling	1. A limited number of companies have been serviced for a relatively large budget in scoping and consultancy effort. Effort per company is high, so for now and foreseeable future in the programme, upscaling potential is relatively low.	<p>Actual implementation of RECP in a large number of companies did not yet happen Estimated total number is between 100 - 200 companies.</p> <p>The outlook for future upscaling is not yet clearly established in the programme.</p> <p>Overall impact of RECPnet organizations in their respective countries is varying, but overall is considered to be moderate. Some</p>	<p><i>Key recommendations:</i></p> <p>Define an upscaling strategy for EIP and Low Carbon (WS3, 5).</p> <p>For WS6: determine to what extent upscaling activities in the remaining timeframe can be implemented, keep the balance between increasing upscaling and securing quality of implementation.</p>	<p><i>Key recommendation:</i></p> <p>Develop dedicated tools for different levels of competence between RECP Centres to achieve upscaling both by 'top' centres and 'midfield' centres.</p> <p><i>Additional recommendations:</i></p>	

		<p>centres, for instance in South Africa and Lebanon seems to have a considerable impact in their local context but these seem to be exceptions.</p> <p>Potential impact of the Centres activities is in threat of reducing further in light of the many competing networks and organizations crowding the Sustainability and innovation landscape.</p> <p>In WS6: opportunity for upscaling is better than WS3 and WS5 because of a practical toolkit and the connection to the international network for chemicals management (IOMC). That gives a platform for upscaling, but this has not yet been done in the context of the Programme</p> <p>WS3: is supposed to be a suitable way to upscale as you can have up to 100s of resident companies in an industrial zone, but this has not yet been implemented.</p>	<p><i>Additional recommendations:</i></p> <p>UNIDO should reconnect to UNEP and related programmes to enhance the service delivery capacity of RECP Centres, thus increasing the opportunities for upscaling.</p> <p>For WS5: Based on the Technology/sector matching, push for fast implementation and determine to what extent upscaling can be achieved, in a combined approach with GEF, WB and other programmes.</p> <p>Publish the EIP primer as a supportive tool for upscaling and mainstreaming.</p>	<p>Reconnect to UNEP and related programmes to enhance the service delivery capacity of RECP Centres, thus increasing the opportunities for upscaling.</p> <p>Connect UNIDO project funding in a smart way to other funding sources and consortium building to increase local upscaling</p>	
11) Mainstreaming	1. Current mainstreaming status is low. There is little attention to framework conditions in RECP Programme; if UNIDO-UNEP want to incentivize this aspect, there is a need to (first) build and	<p>WS7 study of existing finance tools: objective was to apply to other technical workstreams, this did not happen.</p> <p>Comprehensive set of finance tools was described, but is not applied.</p>	<p><i>Key recommendation:</i></p> <p>Develop a better balance between UNIDO's technical RECP concept with development needs on policy and institutional sides; better leverage the economic and</p>	<p><i>Key recommendations:</i></p> <p>Develop thoughts and strategy regarding own policy role, focus on opportunities to influence framework conditions</p>	

	<p>embed RECP culture</p> <p>2. Mainstreaming requires a diverse skill set; it is perceived that UNIDO's preference is to specialize not diversify</p>		<p>innovation approaches of others (especially that of UNEP as a joint implementing partner)</p> <p><i>Additional recommendations:</i></p> <p>Identify and leverage the existing competences amongst UNIDO-UNEP staff who could contribute and strengthen this part. There is a comprehensive set of finance tools described. Define how to enter this in the RECP process, how to combine with other activities.</p> <p>Strengthen the Programme's emphasis on developing framework conditions and embedding drivers/incentives and/or connect with other relevant institutions (e.g. ILO on working conditions, UNEP 10YP, UNDP & FAO on the agro & bio-based sectors part)</p>	<p>Insist on the inclusion of capacity-building for these aspects within existing and future programmatic activities</p>	
12) Innovation	<p>1. Innovative tools, approaches and methods can be found in several of the WS (not only in WS8), but remain largely unused and are applied to a limited extent in the industrial practice targeted by the programme.</p>	<p>Due to Programme's funding background, UNIDO and UNEP activities on innovative approaches have been separated.</p> <p>Innovations have been identified in WS5 and WS6 (approaches for bio energy technologies, chemicals management); these are new for developing regions</p> <p>WS7: No innovative business financing approaches have been</p>	<p><i>Key recommendations:</i></p> <p>Determine how the innovative tools and methods currently available can support improved service delivery by RECPnet members.</p> <p>Refresh/publish adapted RECP toolbox; check with TEST methodology for integration.</p> <p><i>Additional recommendations:</i></p> <p>Develop a common perspective</p>	<p><i>Key recommendation:</i></p> <p>Develop a linked offering for technical and business innovation based on complementary UNIDO and UNEP approaches.</p>	

		<p>applied</p> <p>WS8: The Innovative business models have not yet been applied in WS 3,5 6:</p>	<p>on the synergy between RECP and eco-innovation (UNIDO the technical innovation, UNEP for the business innovation).</p> <p>Revitalize this discussion.</p> <p>WS4: upgrade of the existing RECP toolbox as an incremental innovation (and full innovation for mid-field and starting Centres).</p> <p>WS5: decide on innovative potential of selected technologies to be implemented.</p> <p>WS 6: develop a strategy for implementation of the innovative technologies (such as Green chemistry, green design of chemicals) in the remaining programme period</p> <p>WS8: Connect Innovative BM to implementation in WS 3,5 6:</p> <p>Connect to in-house and external expertise for innovative business financing.</p> <p>Integrate innovative aspects from other approaches such as eco-innovation, circular economy, cradle-to-cradle and others into RECP.</p>		
13) Gender	1. Gender equality or empowerment is not mentioned in RECP	59% of survey respondents say they pay attention, others say it's not an issue.	<p><i>Key recommendations:</i></p> <p>Assess areas in which gender has strategic relevance for the</p>	<p><i>Key recommendation:</i></p> <p>Review, use, and promote</p>	

	<p>Programme formulation and reporting reviewed under this evaluation effort; the programme was designed in an era when this topic was not prioritized</p>	<p>Centres engaged in EU-funded projects have an active policy on gender, especially with respect to team composition</p> <p>Country-level fact-finding: revealed limited understanding of strategic value of working on this topic</p> <p>Female staff in Centres are well/even highly represented; much lower in management; external consultants typically male</p> <p>Geographic differences: Women cannot travel alone (without their husband) due to cultural barriers, so cannot be involved in company assessment work outside the office in some countries</p>	<p>RECP topic, identify meaningful examples to help demonstrate how to put it into practice, to influence positive change.</p> <p>Incorporate relevant gender aspects in future activities. This will also help for securing donor funding as gender mainstreaming is viewed as an important priority: this topic is also linked to SDGs.</p> <p><i>Additional recommendation:</i></p> <p>Build capacities of RECPnet members at global level (virtual, blended learning approach) which would also function to build the network</p>	<p>existing operational guidelines (UNIDO: April 2009, May 2010)</p> <p>Identify areas in which gender has strategic relevance for the RECP topic; establish pilot activities to build knowledge</p> <p><i>Additional recommendations:</i></p> <p>Tap existing expertise of Centres (e.g. South Africa) working on this topic. Promote South-South cooperation</p> <p>Incorporate into own programmatic activities, where relevant</p> <p>Identify where there are needs for capacity-building</p>	
14) UNIDO management	<p>1. Widespread appreciation of engagement & dedication of UNIDO-UNEP Programme Management team</p> <p>2. Too low capacity for such a complex demanding programme, led to focusing on certain parts, neglecting others</p> <p>Adaptive management</p>	<p>High influence of personal orientation/preferences on the way things are done; detailed technical management style</p> <p>Until recently, significant reliance on 1-2 individuals – insufficient delegation</p> <p>Overloaded staff. Asked to do lot of advocacy, promotion, networking; the primary task is to manage the program!</p>	<p>Key recommendations:</p> <p>Without delay, appoint an overall programme manager with strong project management skills</p> <p>Insist on stronger in-house presence of management team, with the team dedicated to respective workstreams.</p> <p>Understand bottlenecks for contracting/procurement to</p>		<p><i>Key recommendations:</i></p> <p>Create less pressure for adaptive management: more effectively balance your interests in using the RECP Programme as a policy tool to allow</p>

	<p>seen as a positive but too readily responding to donor-imposed programming led to “mission drift”</p> <p>→ programme resources drained to other related project activities (e.g. Green Industry Platform, cradle-to-cradle, seeking GEF co-financing) and opening new countries (e.g. Myanmar, Kuwait Sudan)</p>		<p>ensure timely initiation and continuation of activities (insights from Sept 2015 Evaluation Report on overall UNIDO Procurement?)</p> <p><i>Additional recommendations:</i></p> <p>Enhance responsiveness; 48 hour response to requests as a standard?</p> <p>Utilize a more delegative management style</p> <p>Consider dedicating 1 person for outreach, dissemination, etc. (should be a good networking person; the boss should only go to the events where decisions are made, otherwise delegate)</p> <p>Reduce emphasis on detailed technical management style</p> <p>Put more priority on (and improve?) project management skills; outsource when need technical advice</p>		<p>the programme to work on achieving objectives redefined as feasible and achievable within the remaining implementation timeframe</p> <p>Review oversight & governance mechanisms to ensure early feedback (or agreement) on mission drift, scope deviations</p>
15) UNIDO administration	<p>1. Complex procedures for contracting and financing, leading to problems with implementation, creating gaps, loss of momentum (and qualified/experienced staff)</p>	<p>Energy and interest dispersed, reallocation of resources to other activities becomes hard to re-channel</p> <p>Inability to respect deadlines, lack of predictability for RECPnet partners as well as international and national contractors</p>	<p><i>Key recommendations:</i></p> <p>Do realistic administration especially with RECPnet members, as this is the basis of trust-building</p> <p>Do better planning</p> <p>Increase lead-time for initiating activities to avoid pressure to</p>		

	<p>2. UNIDO's reputation as an international implementing agency is negatively impacted; this is a competitive landscape – significant potential for loss of needed talent.</p>	<p>RECPnet implementers regularly perceive there is an under-resourcing of activities, contractors report significant frustration (compensation levels are not aligned with expectations), particularly in view of contracting challenges, unpredictability, delays</p>	<p>get needed resources in place at the last minute</p> <p><i>Additional recommendations:</i> Avoid over-promising to reduce risk of creating disappointed stakeholders</p> <p>Recommendations for UNIDO Procurement, HR: Review & simplify contracting Review system/criteria used to determine compensation to become more aligned with other international actors</p>		
16) Dissemination	<p>1. RECP Programme embarked without an apparent strategy from the start for dissemination</p> <p>2. Current approach depends largely on consultant reports and technical reports, which are insufficient for making strategic choices in next phases and rolling planning</p>	<p>Reliance on finalisation of reports (delayed by delays in Vienna providing input) creates serious delay in dissemination of anticipated and valuable resources (e.g. EIP survey)</p> <p>SECO-required reporting is primarily narrative (not substantive) and rolling reporting following adaptive management, reducing opportunities to create useful material for dissemination of results, outcomes, learning</p> <p>WS 6 and WS 8 toolkits are good examples of valuable outputs worth disseminating sooner than later; balance desire for high quality standard for inclusion in IOMC toolbox for SAICM implementation with loss of momentum/impact in reaching perfection</p>	<p>Key recommendations:</p> <p>Strengthen in-house strategic coherent reports; move to a 3 month schedule on status, results achieved, problems and challenges, opportunities to solve issues</p> <p>UNIDO produces itself or outsource a compilation of reporting, and bring this to a higher level (into a toolkit, paper, etc.) to be disseminated to a large audience</p>		



8.12. Annex 11 – Evaluation Terms of Reference

Mid Term Evaluation April – August 2015 **Terms of Reference**

Background

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).

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 ⁽¹⁾.

Taking into consideration the findings, lessons learned and recommendations from the Independent Evaluation of the UNIDO-UNEP National Cleaner Production Centres (NCPs) during 2007 ⁽²⁾, UNIDO and UNEP drafted the strategy and project document for their joint RECP Programme, which was approved for implementation in 2009. The Programme is de facto implemented as an aggregate of different projects that have each been designed in accordance with the programme strategy to address specific country needs and thematic and/or sectoral priorities (including for example for 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) ⁽³⁾.

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

¹ See e.g.: *Taking Stock and Moving Forward: the UNIDO-UNEP National Cleaner Production Centres*, UNIDO, 2010



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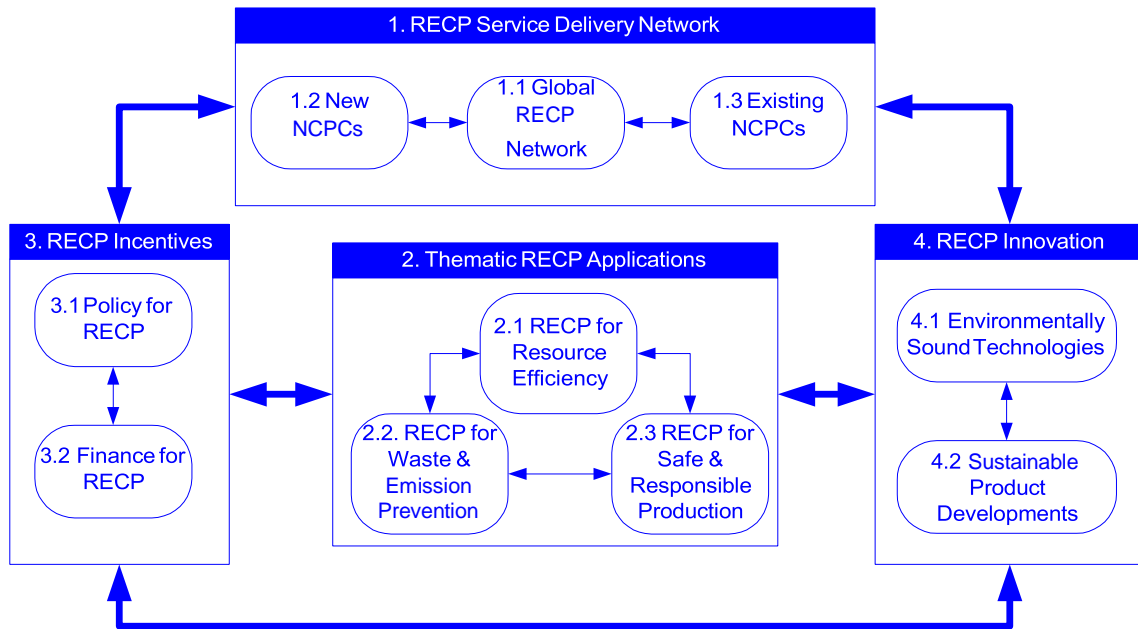
² See, UNIDO, Independent Evaluation of National Cleaner Production Centres Programme, UNIDO/UNEP, 2008.

³ Independent evaluations have since been completed for National Cleaner Production Programmes in Sri Lanka, Cambodia and Lao (final evaluations) Viet Nam (impact evaluation) and Ukraine (mid term) and are being undertaken in parallel with this global programmatic evaluation in Tunisia and Moldova (final evaluations). 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 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>

individually as well as synergistically. These are:

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.



The Government of Switzerland confirmed funding support to the total value of CHF 14.6 million (exclusive Programme Support Costs) for five year period (2012-2016) to UNIDO for implementation of programmatic activities under the global RECP Programme. The Letter of Agreement (dated 15th November 2011) specified the following priorities:

- *Geographically*, implementation of in-country pilot activities under the present programmatic funding is focused on 12 short-listed priority countries, respectively: Cambodia, China, Colombia, Costa Rica, El Salvador, Guatemala, India, Jordan, Morocco, Peru, South Africa 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),



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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 below.

2.4

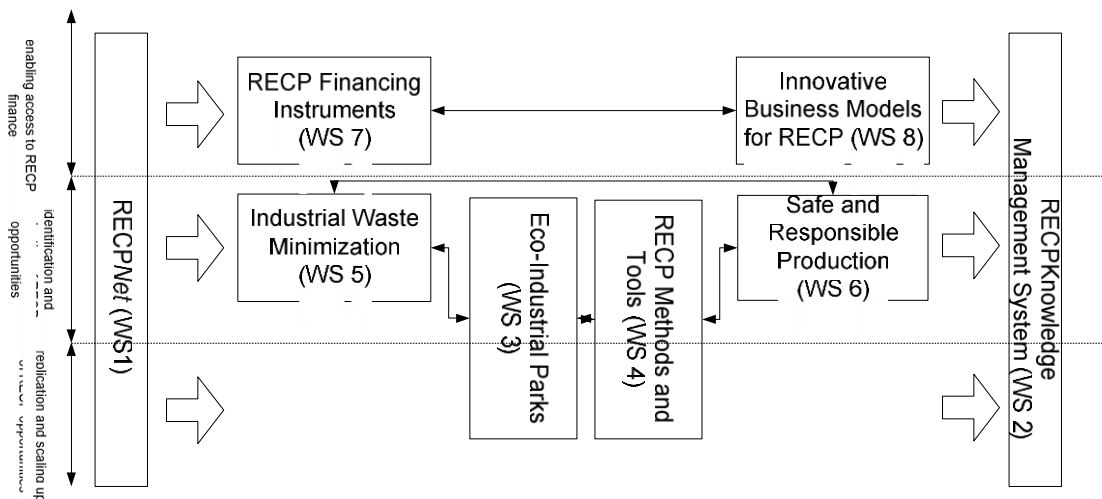
Programme Outputs	Details
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Global Resource Efficient and Cleaner Production (RECP) Programme

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
1.3: RECP Scaling Up	Existing NCPs/NCPPs supported in regard to scaling-up of their activities and impacts and their further institutionalization and professionalization
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
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
3.2: RECP Financing	Flexible framework of guidelines and instruments for mainstreaming RECP in enterprise financing 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 financing options for RECP-investments

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. Their inter-relatedness is illustrated in the figure below.



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 prioritizes 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) is 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 table overleaf matches the workstreams with countries where respective pilot activities have been initiated and supported.



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Workstream	Target Countries ⁽⁴⁾		
	Contributions to knowledge capture	Hosting pilot activities	
		Under present Project	Funded otherwise
1. RECPnet	all	n/a	Colombia, Egypt , Kenya, Mexico, Morocco, Peru , Rwanda, Serbia, South Africa, Sri Lanka, Uganda, Ukraine, Viet Nam ⁽⁵⁾
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, Viet Nam
4. RECP Methods and Tools	n/a	China , India	Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine ⁽⁶⁾
5. Industrial Waste Minimization	All	Cambodia, China , Columbia, Peru , Viet Nam	Egypt
6. Innovative Chemical Solutions	All	Colombia, Egypt , El Salvador, Morocco, Peru	n/a
7. RECP Financing	All	n/a	Georgia, Indonesia, Ukraine
8. Innovative Business Models	All	n/a	Brazil, Colombia, Croatia, Ecuador, Egypt , Mexico, Nicaragua, Peru , Serbia, Sri Lanka

By 30th April 2015, EUR 4,986,851 ⁽⁷⁾ had been expended (including PSC), representing 65% of the funding received at that time or 37% of the total funding committed through the funding agreement. The breakdown of expenditures in following table shows that outputs 2.2, 1.2 and 2.3 have accounted for 85% of the expenditures so far.

Financial Status as of 30 th April 2015	Expenditures (incl PSC)	% of implemented	% of transferred	% of total funding
Output 1.1 RECP Network				
WS1: Operational support RECPnet	€ 885,892	18%	11%	7%
WS2: RECP Knowledge Management System	€ 560,718	11%	7%	4%
subtotal	€ 1,446,610	29%	19%	11%
Output 1.3 Scaling up RECP				
WS3: Eco-Industrial Parks	€ 312,162	6%	4%	2%
WS4: RECP methods and tools	€ 287,294	6%	4%	2%
subtotal	€ 599,456	12%	8%	4%
Output 2.2 RECP for Waste and Emission Prevention				
WS5: Industrial Waste Minimization	€ 1,784,510	36%	23%	13%
subtotal	€ 1,784,510	36%	23%	13%
Output 2.2. Safe and Responsible Production				
WS6: Innovative Chemical Solutions	€ 991,818	20%	13%	7%
subtotal	€ 991,818	20%	13%	7%
Output 3.2: RECP financing				
WS7: RECP financing instruments	€ 29,940	1%	0%	0%
WS8: Innovative Business Models	€ 134,516	3%	2%	1%
subtotal	€ 164,456	3%	2%	1%
grand total	€ 4,986,851	100%	65%	37%

⁴ Countries in bold are proposed for country level fact finding under the present evaluation (see also section 5 of these ToR).

⁵ Focused on human capacity development for management and operation of RECP service provider, under joint project implemented by GIZ.

⁶ Under EU funded regional project on greening of economies of the Eastern Partnership countries.

⁷ Funding is provided by SECO in CHF, yet converted into EUR upon receipt at applicable bank rates at respective dates of funds transfer.



As foreseen during the formulation of the global RECP Programme, a mid-term evaluation is now undertaken to take stock of the achievements and experiences of the Programme so far, to assess the continued relevance of the Programme's objective, outcomes, outputs and activities in the evolving global and national contexts, and to provide recommendations for enhancing impact and sustainability of the Programme over the remaining implementation period.

Rationale and purpose

The mid-term evaluation is conducted following UNIDO evaluation policy (see: <http://www.unido.org/en/resources/evaluation/evaluation-policy.html>). In particular mid-term evaluations serve the general purpose of *monitoring* early programme achievements, identifying implementation bottlenecks and synergistic opportunities, and providing suggestions for fine-tuning programme activities, and hence, de facto, support learning and adaptive management of large scale, multipronged programmes.

The specific objectives of the present mid-term evaluation are:

- To assess the initial performance of the Programme (covering its detailed programming, implementation, management and monitoring) in terms of innovation, efficiency, effectiveness, impact and sustainability, viz-a-viz the logical framework and the organizational and institutional arrangements for its programming, implementation and monitoring;
- To ascertain the continued relevance of RECP for Small and Medium Enterprises (SMEs) globally and review the programme's planned activities and organizational arrangements, taking into consideration the evolving international and national development agendas (as for example reflected in the Sustainable Development Goals); and
- To provide lessons learnt and potential recommendations with a view to furthering the adaptation and adoption of RECP in developing and transition countries globally, during completion of the present Programme, as well as possibly through associated interventions. Particularly, it is expected that the mid-term evaluation will provide input to:
 - *Theory of change* for implementation of RECP *at speed* and *at scale*;
 - *Institutional set up and operational models* for sustained RECP service delivery at the national level (through National Cleaner Production Centres and other member organizations of RECP*net*) and at the global level (through RECP*net* and/or other initiatives); and
 - *Monitoring and evaluation*, particularly indicators for assessing RECP uptake at different levels (policy, institutions, enterprises, etc.) and thereby capturing programme benefits.

In doing so the dual purpose of the mid-term evaluation is to account for the grant funding and other resources utilized by the Programme and to document and systematize the experiences gained from concerted, networked and knowledge driven adaptation and adoption of RECP activities in countries, around thematic applications and globally.



Scope and focus

This mid-term evaluation is expected to cover the programmatic activities in the first three and half years of implementation of the programme, notionally from December 2011 – June 2015, *covering all eight workstreams in a balanced manner*, taking due consideration of efforts and resources spent and impact achieved by workstream. As the programmatic activities funded by SECO under the present grant were expected to serve as a catalyst for additional activities and funding commitments, the mid-term evaluation will also consider the scale, diversity and impacts of complementary activities leveraged as a result of the Swiss global programmatic support for the RECP Programme. Yet the detailed evaluation is to draw primarily upon findings from the specific activities implemented in full by the Swiss funding (or - as the case might be – with limited co-funding from other sources).

The global programme was designed to *scale up* and *mainstream*⁽⁸⁾ the application of RECP methods, practices and policies in developing and transition countries through the application of novel/innovative approaches, such as the formalization of the global RECP network and development of innovative methods, tools and techniques at enterprise, sector and regional levels. Hence the mid-term evaluation is further expected to focus on the following three cross-cutting *impact dimensions*, namely:

innovation: in the present programme context, innovation is to refer to methods, tools, techniques, financing and/or policies that are new (and as of yet unproven in the recipient countries' contexts) and contribute to an expanding set of RECP solutions and greater insight/learning on their application. Innovation is expected to contribute in particular to:

- a. strengthening of the RECP service providers and their organizational sustainability; to expanding the market for RECP services;
- b. deepening and sustaining the impacts of RECP services (i.e. ensuring that RECP is integrated in management systems, policy, regulatory and other incentives affecting enterprises, governments and other organizations);
- c. leveraging financial and other resources into investments and technology transfer for RECP;
- d. and/or combinations thereof.

Innovation can range from incremental refinements to transformative, novel approaches, with the latter category being more specifically aimed at under the present global RECP Programme;

Scale: in the present programme context, scale refers collectively to:

- a. numbers of enterprises serviced;
- b. size of impact of RECP implementation (actual investments and savings made and environment and resource conservation benefits achieved, relative to the scale of the assisted enterprises); and/or
- c. (publicly funded) time and effort for RECP implementation.

In order for RECP to become relevant at sector or national levels, scaleable models are required that each involve dozens of enterprises and that in turn can be easily replicated throughout the country and among sectors;



Mainstream: in the present programme context, mainstream pertains to embedding RECP so that the premise of RECP as continuous improvement approach is realized and sustainability of impacts secured. Mainstreaming puts RECP into the '*national DNA*', by creating policies, strategies and institutions that effectively encourage and reward RECP implementation, and by putting RECP in the hearts and minds of business and government leaders, managers, engineers and employees, and indeed society at large.

The Mid-Term Evaluation is furthermore expected to consider the three synergistic intervention levels at which the Programme has been operating, respectively:

- Global: networking, advocacy and knowledge utilization: through the creation of RECPnet and implementation of its activities in regard to networking, knowledge management, capacity building and advocacy. The Mid-Term Evaluation is expected to determine the success of the networked implementation through RECPnet in terms of:
 - Improved RECP service delivery (increased efficiency and effectiveness of services provided by network members);
 - Strengthened RECP service delivery (stronger, better supported and organized, and more sustainable service providers);
 - Increased recognition for the importance and benefits of RECP (nationally, regionally and/or globally);
 - Improved sharing of good practice methods tools and techniques; and
 - Enhanced national and international cooperation between member RECP service providers.
- Global: knowledge capture and learning: through compilation and review of good practices in selected themes, in particular: RECP methods and tools; eco-industrial parks; innovative chemical solutions; innovative waste utilization techniques; financing mechanisms and business models. The Mid Term Evaluation is expected to determine the success of knowledge capture and innovation, in particular whether experiences and lessons learned are accurately and comprehensively captured and considered, whether new knowledge and insights were created and, if so, if these were adequately communicated in a way that enables all programme countries to apply these.
- National Pilots: national pilots are included in the global programme with the double purpose of trialling new approaches (methods, tools and techniques) and expanding the capacities of the RECP service provider(s) in the respective countries. The Mid Term Evaluation is expected to consider how pilot activities under the present programme have contributed to expanding both the global knowledge base on RECP as well as the services portfolio and/or capacities of the national RECP Service Providers.

⁸ Even though it is acknowledged that the terms '*up-scaling*' and '*mainstreaming*' are used interchangeably, in UNIDO's view, scaling up is best understood as a significant reduction of the effort required per company to implement RECP (greater efficiency and effectiveness in RECP assessment and implementation, or '*making RECP easier for enterprises*'), whereas mainstreaming is best understood as embedding drivers and incentives for RECP implementation (stronger incentives for RECP consideration and its continued implementation, or '*incentivizing enterprises for RECP*'). Conceptually, mainstreaming and up-scaling are complementary approaches to achieve the policy goal of achieving transformative increases in the numbers of enterprises committing to RECP and in the scale of economic and environmental benefits they individually and collectively achieve through implementation of RECP methods and techniques.



4- Evaluation issues and key evaluation questions

The following are the key issues to be addressed through the Mid-Term Evaluation.

Programme formulation

The extent to which:

- The views, perceptions and experiences of the target group (SMEs in developing and transition countries), as reflected in prior programmatic evaluation (2007-2008) and in consultations during project formulation in 2008/2009, have been considered, addressed and incorporated in the programme design and addressed in programme implementation;
- The views, perceptions and capacities of the national stakeholders (in particular government, business organizations and civil society) were assessed and addressed in the design of the programme; and
- The guidelines and expectations of the donor (Governments of Switzerland) enabled, or as the case might have been, constrained the formulation of a targeted programme design.

Programming and planning (9)

The extent to which:

- The knowledge, experiences, views, perceptions and capacities of the implementing partners (in particular RECP service providers in beneficiary countries and RECP knowledge institutions globally) and their respective national stakeholders (beneficiary governments, business sectors etc.) have been considered in the determination of workstreams and detailed

planning of activities and selection of countries for pilot activities and effectively utilized in implementation, monitoring and review of these activities.

Ownership and relevance

The extent to which:

- The partner organizations have been appropriately involved and were participating in the identification of the critical problem areas of the target beneficiaries and in the finetuning of the programme strategy and were actively supporting the implementation of the Programme including through in-kind and/or cash contributions; and
- The outputs, as formulated in the logical framework:
 - Were relevant to the target beneficiaries, adequately balanced, and reasonably expected to be sufficient to achieve the expected outcomes and objectives over the programme duration;
 - Have since programme start been progressed in a balanced way (considering financial, institutional, human and other resources available to the programme); and



- Continue to be relevant to the target beneficiaries, taking into consideration the national, regional and global developments, including the determination of the post 2015 international sustainable development agenda, and continue to provide adequate prospect for ensuring programme aims and objectives over the remaining programme period (and/or otherwise suggest adjustments, including in targets and performance indicators)

Efficiency of implementation

The extent to which

- The resources and inputs of UNIDO (including those made available through the donor) and its partner organizations have been provided as planned and were adequate to achieve the requirements of the Programme and respond to the needs of the target beneficiaries; and
- The quality of the inputs and services provided by UNIDO and its partner organizations were as planned and led to the production of the planned outputs.

Effectiveness

Assessment of:

- Extent to which outputs expected to be achieved at the time of the mid-term evaluation have been achieved as planned
- Quality and appropriateness of outputs produced and how the target beneficiaries use (and/or could use) these outputs; and
- Achievement of outcomes or likelihood of their achievement through further utilization of the outputs.

Impact and sustainability

Assessment of the likelihood of:

- Long term developmental changes (economic, environment and social) that have occurred or are likely to occur as a result of the Programme and are these likely to be sustained after its completion;
- Replication and/or multiplication of the activities and outputs by partner organizations and/or other stakeholders, in the present beneficiary countries as well as potentially elsewhere; and
- Provisions made for sustaining the impacts achieved by the Programme, in terms of:
 - human and institutional capacity for RECP service delivery (including, but not limited to the organizational, institutional and financial sustainability of Network Members);
 - economic, environmental and resource productivity benefits achieved by assisted enterprises (including their investments and acquired technology and improved management practices); and
 - adoption and implementation of new policies, strategies and financing arrangements conducive to RECP in target enterprise sectors).



⁹ Within the context of the global RECP programme, programming and planning refers to '*within programme*' programming and planning, i.e. the determination of the work-streams and identification of specific activities and target countries, and planning and budgeting thereof, within the boundary conditions of the donor's grant and building upon the programme strategy and project document.



Project coordination and management

The extent to which:

- The management, coordination and administration of the Programme by UNIDO in cooperation with UNEP and representatives of RECP*net*, particularly its elected Executive Committee, have been efficient and effective, including for mobilization and/or leveraging of resources and inputs by the partner organizations;
- The management, coordination and quality control have been efficient and effective;
- Monitoring and self-evaluation was carried out, were based on indicators for outputs, outcomes and/or objectives and using that information for the steering and adaptive management of the Programme; and
- Synergy benefits were achieved in relation to other activities of UNIDO, UNIDO and/or the partner organizations in the beneficiary countries and/or elsewhere in developing and transition countries globally.

Gender

The extent to which:

- Gender aspects are considered and/or mainstreamed in the programme
- Benefits delivered by the programme at the global, national and local levels, are gender responsive

5. Evaluation approach and methodology

The mid-term evaluation is to be undertaken using good international practice in a transparent and accountable way, taking input from:

- Narrative progress reports and (annual) work plans of the Programme;
- Substantive reports produced, in particular reports from the thematic work-streams (methods and tools, eco-industrial parks, financing, business models, chemical solution and low waste/low carbon technologies); and
- Direct and independent fact finding from key programme partners, provisionally including:
 - (online) survey among members of RECP*net*;
 - Detailed (phone/skype) interviews of UNIDO project managers, donor representative(s), UNEP representative(s), current Executives of RECP*net*, and lead experts of the international service providers/contractors; and
 - Fact finding missions to three beneficiary countries with national pilot activities under the present programme, to assess programme's performance in the country from perspectives of final beneficiaries, national government and RECP service provider. Taking into consideration geographic spread and involvement of countries in the pilot activities (as detailed in section 2 above), in country fact finding will be limited to China, Egypt and Peru.
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The fact finding missions will include an institutional assessment of the RECP service provider, using amongst others the good practice primer on governance, organization and management of RECP service providers ⁽¹⁰⁾. In addition to informing the present mid term programme evaluation, such institutional assessment is aimed to serve the respective service provider to improve its management capacities.

Time schedule and deliverables

The mid-term evaluation of the Project is to be completed during June – September 2015. The final report is to be tabled at the 4th global RECP networking conference, scheduled to take place on 15-16 October 2015 in Davos, Switzerland. Two missions to Vienna are foreseen (for kick off and interviews of programme managers, and for debriefing of draft findings and lessons learned) and one field mission each to China, Egypt and Peru.

The indicative time table is as follows:

- ToR finalized and contract signed with international experts (by 22nd June 2015)
- Desk review and kick off mission Vienna, finalization of inception note and detailed evaluation methodology (to be completed by 17th July 2015)
- Survey among RECPnet membership (to be completed by 15th August 2015)
- Interview of global programme stakeholders, including RECPnet executives (to be completed by 15th August 2015)
- Field missions to China, Egypt and Peru (to be completed by ~31st August 2015)
- Elaboration of draft report (to be completed by ~20th September 2015)
- Debriefing mission to Vienna (to be completed before 30th September 2015)
- Finalization of evaluation report (to be completed within 5 working days after receipt of consolidated set of comments).

A brief inception note is to be submitted at the end of the desk review, which should further define the detailed methodology and outline the key issues to be further clarified and assessed during the field mission. The complete draft report in English language is to be submitted on or before 15th September 2015. Comments will be sought from UNIDO, UNEP, and donor representatives) by 30th September 2015.

Evaluation team

The evaluation will be undertaken by an evaluation team composed by one international expert in evaluation of technical cooperation projects and one international RECP expert. The field missions in China, Egypt and Peru will be supported by short term national experts in each country. The administrator of RECPnet will assist with execution of the survey among members of RECPnet. The respective Job Descriptions are attached to these ToR (annex 2).

All members of the evaluation team must not have been involved in the design and/or implementation, supervision and coordination of any intervention to be assessed by the evaluation and/or have benefited from the programmes/projects under evaluation.



The evaluation will be managed and supervised by an evaluation manager appointed from the Office for Independent Evaluation of UNIDO. The UNIDO Project Manager, Unit Chief and management of the RECP Service Providers in China, Egypt and Peru will be available as resource to the evaluators and evaluation manager.

Governance and management of the evaluation process

The ToR for this mid-term evaluation was drafted in cooperation of Global RECP Programme Manager and the project managers of the work streams upon initial consultations with UNIDO Office for Independent Evaluation and representatives of donor regarding scope, focus and objectives of the mid-term evaluation. The ToR were next reviewed and endorsed by the Evaluation Manager.

The Evaluation Manager will approve the inception note and evaluation report after having given an opportunity for review by project manager and responsible Unit Chief and donor (both only for the evaluation report).

Quality assurance

Commensurate with UNIDO evaluation policy, this evaluation is subject to quality assessments by the UNIDO Office for Independent Evaluation. Quality control is exercised throughout the evaluation process. 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.

Annexes

1. Logframe of the Project
2. Job description evaluators
3. Checklist on evaluation report quality

¹⁰ *Good Organization, Management and Governance Practices: a primer for providers of services in resource efficient and cleaner production*, UNIDO and UNEP, Vienna/Paris, 2010





Annex 1: Logical Framework of the Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP)

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

Narrative Summary	Indicators	Means of Verification	Assumptions
Objective			
<p>Programme objective: 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> <ol style="list-style-type: none"> Environment: reduced environmental footprint ⁽¹¹⁾ of the business sector Production Efficiency: increased resource productivity ⁽¹²⁾ and reduced operational and/or compliance costs of the business sector Policy and institutional: conducive policies and regulations implemented and enforced and RECP promoted by strong custodian at the national level Finance: opportunities for financing RECP investments established and are being utilized Technology: enhanced assimilative capacity for ESTs and sustainable products 	<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)			
<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>	<ol style="list-style-type: none"> RECP activities of enterprises RECP activities of government RECP initiatives of providers of business services and finance RECP initiatives of other stakeholders 	<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)

¹¹ 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.



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¹² 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).



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Narrative Summary	Indicators	Means of Verification	Assumptions
Outcomes (Contributing)			
<p>Outcome 1: RECP Services Delivery Network: RECP services delivery capacity enhanced through NCPs/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 NCPs/NCPPs) is constrained by perceptions of limited relevance compared to other national initiatives
<p>Outcome 2: Thematic RECP Applications: 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 2.2. Increased resource productivity of enterprises 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>Outcome 3: RECP Incentives 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 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 organisations is constrained by lack of government incentive and of availability of appropriate financing options
<p>Outcome 4: Innovation Capacity 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



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<p>Output 1.1: 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> 1.1.1. Facilitate the development of a membership charter, detailing benefits and responsibilities, including membership criteria 1.1.2. Establish an appropriate governance structure for the network 1.1.3. Establish and operate a knowledge and information sharing and management platform (including e.g. resources, experts, case studies etc) 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 1.1.2. Governance structure with ToR for Network Committee 1.1.3. Existence and use of platform 1.1.4. Networking events have taken place</p>	<p>1.1.1. Launch of network charter 1.1.2. Minutes of Network Committee meetings 1.1.3. Use statistics of the platform 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>Output 1.2: RECP services delivery capacity established in priority countries, new to the programme based on strategic programme targets</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 • 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⁽¹³⁾ • The expressions of interest received match the strategic priorities of the programme⁽¹⁴⁾ • There is interest from donors to fund the establishment of RECP services delivery capacity in priority countries
<p><u>Activities</u> 1.2.1. Formulate and obtain approval for strategy for establishing new RECP services delivery capacity 1.2.2. Establish new RECP services delivery capacity through country-level support projects for NCPP and/or NCPC⁽¹⁵⁾</p>	<p>1.2.1. Priority and eligibility criteria for new programme countries established 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 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

¹³ 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)

¹⁴ 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



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<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>1.3. 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 professionalisation
<p>Activities</p> <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, professionalisation and capacity building in all RECP service areas⁽¹⁶⁾</p> <p>1.3.4. Develop, trial, evaluate and disseminate flexible guidance for up-scaling⁽¹⁷⁾ 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 professionalisation 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

Narrative Summary	Indicators	Means of Verification	Assumptions
Outputs and Activities 2: Thematic RECP Applications			

¹⁵ 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.

¹⁶ 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.



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¹⁷ 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.



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Narrative Summary	Indicators	Means of Verification	Assumptions
<p>Output 2.1: 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><u>Activities</u></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 ⁽¹⁸⁾</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>Output 2.2: Thematic project(s) on RECP for Waste and Pollution Prevention ⁽¹⁹⁾ developed, implemented and evaluated and methods and results effectively disseminated in participating countries and in the network of RECP Services Providers</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 to fund thematic activities on CP and Waste and Pollution Prevention

¹⁸ 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.

¹⁹ 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



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Narrative Summary	Indicators	Means of Verification	Assumptions
<p><i>Activities</i></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⁽²⁰⁾</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><i>Output 2.3:</i> 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</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
<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⁽²¹⁾</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

²⁰ 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.

²¹ 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



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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.



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Narrative Summary	Indicators	Means of Verification	Assumptions
<p>Output 3.1: Flexible framework of guidelines for mainstreaming RECP in relevant government policies (including those for Sustainable Consumption and Production and sustainable industrial development) developed, trialled 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
<p>Activities</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 ⁽²²⁾, 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 ⁽²³⁾</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

²² Further training and capacity building at the global level will take place through training activities under 1.3.2.

²³ 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.



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Narrative Summary	Indicators	Means of Verification	Assumptions
<p>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</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 • There is potential interest among donors and financial institutions to fund complimentary projects on specific financial instruments
<p><u>Activities</u></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 ⁽²⁴⁾</p> <p>3.2.3. Formulate and implement complimentary project(s) to create specific financial instruments in selected countries ⁽²⁵⁾</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

²⁴ Further training and capacity building at the global level will take place through networking and up-scaling activities under 1.3.2

²⁵ 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.



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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	4.1 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 	<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
<u>Activities</u> 4.1.1. Review at country level technology management and assessment capacities and national technology/process innovation systems in selected countries 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) ⁽²⁶⁾	4.1.1. Analytical report of base case reviews 4.1.2. Supportive project(s) on strengthening of process innovation capacities formulated, implemented and evaluated as per the respective project agreement(s) 4.1.3. Toolkit developed and published	4.1.1. Publication of baseline report(s) and biannual management reports of the UNIDO-UNEP RECP Programme 4.1.2. Biannual management reports and independent evaluation of respective thematic projects 4.1.3. Biannual management	<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
<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	4.2 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 	<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

²⁶ 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

²⁷ Depending on findings of 4.1.1 and 4.1.2 and possibly integrated with 1.3



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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) ⁽²⁸⁾</p> <p>4.2.3 Publish results and experiences widely in toolkit and/or other resource materials ⁽²⁹⁾</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



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²⁸ 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.

²⁹ Depending on findings of 4.2.1 and 4.2.2 and possibly integrated with 1.3.



Annex 2: Job Descriptions

Post title: Senior International Evaluation Expert (Programme Evaluation)/Team Leader
Duration: 40 working days,
Date required: 22nd June 2015, completed before 16th October 2015
Duty station: Home base with two briefings in Vienna and field missions to China, Egypt and Peru
Counterpart: RECPnet and its membership

Under the direct supervision of the UNIDO Headquarters Evaluation Manager, in cooperation with the senior RECP expert and national experts, and with the support of the Project 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 prepare detailed evaluation methodology and an initial set of evaluation findings and questions for clarification and additional data collection	5 working days (home base)	– Inception note with evaluation methodology, preliminary findings and outstanding issues, submitted to evaluation manager on or before 17 th July 2015
Briefing mission – consultation of project managers and regional executives of RECPnet, confirmation of detailed evaluation methodology and scope for country fact finding	3 working days (Vienna)	– Detailed evaluation methodology confirmed, initial evaluation findings at network level, on or before 17 th July 2015
Undertake fact finding field mission to China, Egypt and Peru 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	18 working days (China, Egypt and Peru)	– Completed additional fact finding and data evaluation on or before 31 st August 2015
Prepare and submit draft report of mid-term evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the project	10 working days	– Draft evaluation report submitted to evaluation manager for review on or before 15 th May 2015
Debriefing mission – presentation of draft evaluation report, factual verification of evaluation findings with the workstream project managers	2 working days (Vienna)	– Factual verification of evaluation report concluded, additional data obtained, on or before 30 th September 2015
Finalize evaluation report, on basis of comments and suggestions received through evaluation manager	2 working days (home base)	– Final evaluation report submitted to evaluation manager on or before 12 th October 2015

Requirements

Relevant university degree; over 5 years project evaluation experience; excellent oral and written communication skills in English; demonstrated familiarity with private sector development and (corporate) environmental responsibility, including preferably Resource Efficient and Cleaner Production. 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 programme/project



(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 project before the completion of her/his contract with the Office for Independent Evaluation.



Post title: Senior Resource Efficient and Cleaner Production (RECP) Expert
Duration: 30 working days,
Date required: 22nd June 2015, completed before 16th October 2015
Duty station: Home base with two briefings in
Counterpart: RECPnet and its membership

Under the direct supervision of the UNIDO Headquarters Evaluation Manager, in consultation with the Senior International Evaluation Expert and with the support of the Project 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 note with evaluation methodology, preliminary findings and outstanding issues, submitted to evaluation manager on or before 17 th July 2015
Briefing mission – consultation of project managers and regional executives of RECPnet, confirmation of detailed evaluation methodology and scope for country fact finding	3 working days (Vienna)	– Detailed evaluation methodology confirmed, initial evaluation findings at network level, on or before 17 th July 2015
Supervise execution of survey among membership of RECPnet, including drafting of conclusions	4 working days (home base)	– Evaluation findings formulated at the level of operation and support for networking, on or before 31 st August 2015
Assess technical and operational impact of RECP programme, on the impact dimensions of innovation, scale and mainstream, based on amongst others detailed review of substantive and technical outputs and reports prepared and delivered under thematic workstreams, consultations with lead international and national experts, etc. and elaborate or propose, as appropriate, theory of change, institutionalization models and indicators	12 working days (home base)	– Completed technical and operational impact review, including findings, recommendations and lessons learned for scaling up and mainstreaming RECP, on or before 31 st August 2015
Contribute to the drafting of report of mid-term evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the project	4 working days (home base)	– Draft evaluation report submitted to evaluation manager for review on or before 20 th September 2015
Debriefing mission – presentation of draft evaluation report, factual verification of evaluation findings with the workstream project managers	2 working days (Vienna)	– Factual verification of evaluation report concluded, additional data obtained, on or before 30 th September 2015
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 12 th October 2015

Requirements

Relevant university degree; over 7 years' experience in planning, implementation, monitoring and/or evaluation of RECP projects 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 programme/project (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 project before the completion of her/his contract with the Office for Independent Evaluation.



Post title: National Evaluation Expert (Project Evaluation) - China
Duration: 15 working days,
Date required: ~20th July 2015, completed before 20th September 2015
Duty station: Home based, with national travel within China as required for fact finding
Counterpart: Ministry of Industry and Information Technology (MIIT, China)
Implementing Partner: China National Cleaner Production Centre (CNCPC)

Under the direct supervision of the UNIDO Headquarters Evaluation Manager and with the support of the Project Manager, the national evaluation expert is responsible to carry out the following tasks for the country evaluation of the global RECP programme in China:

Tasks	Expected Duration	Expected results
Assist international evaluation expert with desk review of management, activity, output and related documents of the RECP Programme activities in China and on basis thereof plan and organize fact finding mission for the international project evaluator	6 working days	– Fact finding mission prepared and meeting schedule confirmed
Support and participate in the field mission of international evaluator to China to consult project partners and beneficiaries, to verify and complete preliminary evaluation findings from desk review	5 working days	– Completed additional fact finding and data evaluation on or before 31 st August 2015
Provide inputs to the draft report of mid-term evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the programme's activities in particular in China	4 working days	– Draft country evaluation summary submitted to evaluation manager for review on or before 15 th September 2015

Requirements

University degree in relevant business, public policy or engineering discipline, knowledge of China's industrial development situation, institutions and programmes, and its environmental and resource/energy use situation; knowledge of UNIDO; and evaluation experience.

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 programme/project (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 project before the completion of her/his contract with the Office for Independent Evaluation.



Post title: National Evaluation Expert (Project Evaluation) - Egypt
Duration: 15 working days,
Date required: ~20th July 2015, completed before 20th September 2015
Duty station: Home based, with national travel within Egypt as required for fact finding
Counterpart: Ministry of Industry
Implementing Partner: Egypt National Cleaner Production Centre (ENCPC)

Under the direct supervision of the UNIDO Headquarters Evaluation Manager and with the support of the Project Manager, the national evaluation expert is responsible to carry out the following tasks for the country evaluation of the global RECP programme in Egypt:

Tasks	Expected Duration	Expected results
Assist international evaluation expert with desk review of management, activity, output and related documents of the RECP Programme activities in Egypt and on basis thereof plan and organize fact finding mission for the international project evaluator	6 working days	– Fact finding mission prepared and meeting schedule confirmed
Support and participate in the field mission of international evaluator to Egypt to consult project partners and beneficiaries, to verify and complete preliminary evaluation findings from desk review	5 working days	– Completed additional fact finding and data evaluation on or before 31 st August 2015
Provide inputs to the draft report of mid-term evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the programme's activities in particular in Egypt	4 working days	– Draft country evaluation summary submitted to evaluation manager for review on or before 15 th September 2015

Requirements

University degree in relevant business, public policy or engineering discipline, knowledge of Egypt's industrial development situation, institutions and programmes, and its environmental and resource/energy use situation; knowledge of UNIDO; and evaluation experience.

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 programme/project (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 project before the completion of her/his contract with the Office for Independent Evaluation.



Post title: National Evaluation Expert (Project Evaluation) - Peru
Duration: 15 working days,
Date required: ~20th July 2015, completed before 20th September 2015
Duty station: Home based, with national travel within Peru as required for fact finding
Counterpart: Ministry of Production
Implementing Partner: Centre for Eco-Efficiency and Social Responsibility (CER)

Under the direct supervision of the UNIDO Headquarters Evaluation Manager and with the support of the Project Manager, the national evaluation expert is responsible to carry out the following tasks for the country evaluation of the global RECP programme in Peru:

Tasks	Expected Duration	Expected results
Assist international evaluation expert with desk review of management, activity, output and related documents of the RECP Programme activities in Peru and on basis thereof plan and organize fact finding mission for the international project evaluator	6 working days	– Fact finding mission prepared and meeting schedule confirmed
Support and participate in the field mission of international evaluator to Peru to consult project partners and beneficiaries, to verify and complete preliminary evaluation findings from desk review	5 working days	– Completed additional fact finding and data evaluation on or before 31 st August 2015
Provide inputs to the draft report of mid-term evaluation, including evaluation findings and recommendations and lessons learned for continued implementation of the programme's activities in particular in Peru	4 working days	– Draft country evaluation summary submitted to evaluation manager for review on or before 15 th September 2015

Requirements

University degree in relevant business, public policy or engineering discipline, knowledge of Peru's industrial development situation, institutions and programmes, and its environmental and resource/energy use situation; knowledge of UNIDO; and evaluation experience.

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 programme/project (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 project before the completion of her/his contract with the Office for Independent Evaluation.

Annex 3: Criteria for evaluation report

Report quality criteria	UNIDO Office for Independent Evaluation Assessment notes	Rating
a. Did the report present an assessment of relevant outcomes and achievement of programme objectives?		
b. Were the report consistent and the evidence complete and convincing?		
c. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible?		
d. Did the evidence presented support the lessons and recommendations?		
e. Did the report include the actual programme costs (total and per activity)?		
f. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
g. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented?		
h. Was the report well written? (Clear language and correct grammar)		
i. Were all evaluation aspects specified in the TOR adequately addressed?		
j. Was the report delivered in a timely manner?		

Rating system for quality of evaluation reports

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



Annex 4: Criteria for evaluation report

Report quality criteria	UNIDO Office for Independent Evaluation Assessment notes	Rating
Did the report present an assessment of relevant outcomes and achievement of programme objectives?		
Were the report consistent and the evidence complete and convincing?		
Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible?		
Did the evidence presented support the lessons and recommendations?		
Did the report include the actual programme costs (total and per activity)?		
Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
<ul style="list-style-type: none">Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented?		
<ul style="list-style-type: none">Was the report well written? (Clear language and correct grammar)		
<ul style="list-style-type: none">Were all evaluation aspects specified in the TOR adequately addressed?		
<ul style="list-style-type: none">Was the report delivered in a timely manner?		

Rating system for quality of evaluation reports

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



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