

Independent Mid-Term Evaluation

National Resource Efficient and Cleaner Production (RECP) Programme Indonesia

SAP ID 100224



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UNIDO INDEPENDENT EVALUATION DIVISION

Independent Mid-Term Evaluation

National Resource Efficient and Cleaner Production (RECP) Programme Indonesia

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INDUSTRIAL DEVELOPMENT ORGANIZATION**

Vienna, 2017

PREFACE

The report in hand is the draft report version of the:

***Mid-term (independent) Evaluation of the
National Resource Efficient and Cleaner Production (RECP) Programme Indonesia,***

hereafter also referred to as “the Evaluation”. Following desk review of documents made available by the UNIDO Project Office, the Evaluation Team (“the Team”) interviewed project staff, implementing partners and other stakeholders in Jakarta, Yogyakarta, Bandung and Batam during the period 10-19 October 2016.

The report contains a brief country and sector context description, introduction to the background for the UNIDO project in Indonesia (also referred to as “the Project”) and the mandate of the Team, followed by an introduction to the project components and contents. Thereafter comes a chapter containing the Team’s observations and assessment of the Project, and finally a concluding chapter with recommendations.

The preliminary findings and conclusions were shared with the Indonesian implementing partners immediately following the fieldwork of the Team - on 19 October 2016. The donor (State Secretariat for Economic Affairs – SECO, of the Government of Switzerland) was given the preliminary findings/conclusions in a telephone conversation on 26 November. The Lead Evaluator had a de-briefing at the UNIDO HQs in Vienna on 4 November, and the First Draft Report was submitted on 9 November 2016 to UNIDO HQs. Based on comments from UNIDO HQs, a Final Draft Report was submitted 17 November and shared with the project partners, who commented on factual errors or misunderstandings (email from UNIDO HQs 21.12.2016). The Final Report was then prepared incorporating these comments (enclosed in *Annex 7* to this report).

The Evaluation was undertaken by an Evaluation Team comprising:

- Mr Tore Laugerud, Lead Evaluator, Nordic Consulting Group (NCG) Norway
- Ms Farsidah Lubis, National Consultant, Indonesia

The Team thanks all partners and stakeholders it met with for their open and kind contribution during the fieldwork. In specific should be mentioned the staff of the UNIDO Country Office in Jakarta and the Chief Technical Advisor (CTA) and National Programme Manager in Bandung, who prepared the field visit itinerary and arranged the logistics for the fieldwork. The Team was accompanied by various project staff members during the fieldwork (but these did not participate in the meetings).

3 January 2017

*Tore Laugerud, Team Leader/Lead Evaluator
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Disclaimer:

The conclusions and recommendations in this report are clearly those of the Evaluation Team alone, and do not necessarily reflect the opinion of UNIDO or any of the individual persons, partner institutions or stakeholders met with or consulted.

LIST OF ACRONYMS AND ABBREVIATIONS

10YSCP	10 Year Sustainable Consumption and Production
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BAPEDAL	Previous Environmental Impact Management Agency (“Badan Pengendalian Dampak Lingkungan”), merged with MoEF in 2012, but still existing at certain locations (locally).
CADGIE	Centre for Assessment and Development of Green Industry and Environment
CEFS	Centre for Environment and Forestry Standards
CHF	Swiss Francs
CP	Cleaner Production
CPU	Cleaner and Sustainable Production Unit (of UNIDO)
CRECPI	Centre for Resource Efficient and Cleaner Production Indonesia
CSR	Corporate Social Responsibility
CTA	Chief Technical Advisor
CTB	Center for Textile Bandung
C2C	Cradle-to-Cradle
DAC	Development Assistance Committee
GC&E	Green Chemistry and Engineering
GEF	Global Environment Facility
GEES	PT Ganesha Environment and Energy Services
GDP	Gross Domestic Product
GI	Green Industry
GIR	Green Industry Roadmap
GIS	Green Industry Standard
GiZ	German Agency for International Cooperation (“Gesellschaft für Internationale Zusammenarbeit”)
H&M	Hennes og Mauritz (clothing chain)
HQs	Headquarters
ICPC	Indonesia Cleaner Production Centre
IGIDC	Indonesian Industry Development Centre (planning name for CRECPI)
ILO	International Labour Organisation
IRE	Industrial Resource Efficiency Unit (of UNIDO)
IS	Industrial Symbiosis
ISID	Inclusive and Sustainable Industrial Development
ISO	International Organisation for Standardisation
ITB	Bandung Institute of Technology (“Institut Teknologi Bandung”)
JICA	Japan International Cooperation Agency
KADIN	Indonesian Chamber of Commerce and Industry (“Kamar Dagang dan Industri Indonesia”)
KfW	German Development Bank (“Kreditanstalt für Wiederaufbau”)
LED	Light Emitting Diode
LFA	Logical Framework Approach
MoEF	- Ministry of Environment and Forestry

MoEMR	-	Ministry of Energy and Mineral Resources
MoI	-	Ministry of Industry
MoT		Ministry of Tourism
MoU		Memorandum of Understanding
NCG		Nordic Consulting Group
NCPC		National Cleaner Production Centre
NCPP		National Cleaner Production Programme
NGO		Non-Governmental Organisation
Norad		Norwegian Agency for Development Cooperation
NRECPI		Network for RECP Indonesia
OECD		Organisation for Economic Cooperation and Development
PD		Project Document
PMC		Project Management Committee
ProLH		Indonesian-German Environmental Management Program
PSC		Programme Support Cost
RBM		Results-Based Management
RCC		RECP Coordination Committee
RECP		Resource Efficient and Cleaner Production
SAP		System Applications and Products
SCORE		Sustainable, Competitive and Responsible Enterprises
SCP		Sustainable Consumption and Production
SECO		State Secretariat for Economic Affairs (The Government of Switzerland)
SMART		Specific, Measurable, Achievable, Realistic and Time-bound (indicators)
SMARTFish		Sustainable Market Access through Responsible Trading of Fish in Indonesia
ToR		Terms of Reference
UN		United Nations
UNDAF		United Nations Development Assistance framework
UNDAP		United Nations Development Assistance Plan
UNDP		United Nations Development Programme
UNEP		United Nations Environment Programme
UNIDO		United Nations Industrial Development Organisation
USAID		United States Agency for International Development
USD		United States Dollars

GLOSSARY OF EVALUATION-RELATED TERMS

Conclusions	Conclusions point out the factors of success and failure of the evaluated intervention, with special attention paid to the intended and unintended results and impacts, and more generally to any other strength or weakness. A conclusion draws on data collection and analyses undertaken, through a transparent chain of arguments.
Logframe	Management tool used to improve and facilitate the planning, design, implementation and monitoring of interventions, most often at the project level, also in literature referred to as LFA – Logical Framework Approach. It involves identifying strategic elements of the project (inputs, activities, expected deliverables (outputs), specific objective (outcome) and overall objective (goal)) and their causal relationships (“results chain”), indicators, and the assumptions or risks that may influence success and failure. Related term is Results-based Management (RBM).
Outcome	The likely or achieved short-term and medium-term effects (including policy and institutional changes) of an intervention’s outputs. Will materialise <i>after</i> the intervention outputs have been delivered and is clearly outside the control of the project management.
(Expected) Results/ Outputs	The products, capital goods and services which result from the activities of a development intervention (the “deliverables”); may also include changes resulting from the intervention which are relevant to the achievement of outcomes. The outputs are fully within the responsibility and control of the project management.
Effectiveness	The extent to which the development intervention’s results/ outputs and objectives were achieved, or are expected to be achieved, as compared to the work plans and budgets, taking into account their relative importance.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results/outputs. It is thus a measure of productivity.
Impacts	Positive and negative, primary and secondary long-term consequences/effects/ results produced by a development intervention, directly or indirectly, intended or unintended, foreseen or not foreseen. Such effects could be economic, political, social, technical or environmental, both on local and national level, primary and secondary. (A related term is “outcome”, but this is normally used directly related to the <i>planned</i> effect of the project outputs).
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries’ requirements, country needs, global priorities and partners’ and donors’ policies. Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances and framework conditions.
Indicator	Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor. Indicators should preferably be measured in quantitative terms, but also qualitative indicators are used. Indicators should be SMART (specific, measurable, achievable, realistic and time-bound)
Lessons learned	Generalizations based on evaluation experiences with projects, programs, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design, and implementation that affect performance, outcome and impact.
Recommendations	Proposals aimed at enhancing the effectiveness, quality, or efficiency of a development intervention; at redesigning the objectives; and/or at the reallocation of resources. Recommendations should be linked to conclusions.
Results	The outputs, outcomes or impact (intended or unintended, positive and/or negative) of a development intervention at various levels and points in time (the Results Chain refers).
Sustainability	The likelihood of continuation of benefits (and prospects of the expansion and/or replication thereof) from a development intervention <i>after</i> major development assistance has been completed, and the external funding has ended (the probability of continued long-term benefits/impact). The resilience to risk of the net benefit flows over time.

EXECUTIVE SUMMARY

1. INTRODUCTION & BACKGROUND

1.1 Evaluation Objectives, Methodologies and Process

The Evaluation Team (“the Team”) comprised an international Lead Evaluator (Mr Tore Laugerud from NCG Norway) and an Indonesian consultant (Ms Faridah Lubis). The Mid-Term Evaluation (“the Evaluation”) was undertaken during the period October-November 2016, having a forward-looking view.

The Team undertook document review, followed by a field visit interviewing stakeholders in Indonesia (10-19 October 2016, in Jakarta, Yogyakarta, Bandung and Batam). The Team met with the donor (State Secretariat for Economic Affairs in the Government of Switzerland (SECO), UNIDO project staff, the main project partner institutions being the Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI), the Indonesia Cleaner Production Centre (ICPC), the Centre for Assessment and Development of Green Industry and Environment (CADGIE) in the Ministry of Industry (MoI), and the Centre for Textile Bandung (CTB), in addition to the local groups of national experts/RECP assessors that are being trained by the Project (Yogyakarta, Bandung and Batam), the Ministry of Environment and Forestry (MoEF) and the Ministry of Tourism (MoT). The Team also met with selected enterprises participating in the Project within tourism, textile and industrial estates, in addition to local environmental and industrial sector associations.

1.2 Country and Project Description

Indonesia has experienced a significant economic growth during the last decades, with e.g. improved health services and increased life expectancy (71 years for women), but still more than 10% of the population lives below the poverty line. The manufacturing sector contributed with 18% of the Gross Domestic Product (GDP) in February 2016, still being the largest sector (agriculture is the second largest). The private sector is fairly well organised, with the Indonesian Chamber of Commerce and Industry (KADIN) being the umbrella organisation for Indonesian business chambers and associations.

The Government of Indonesia launched a Cleaner Production (CP) Policy in 2004 when also the ICPC was established. CP has been supported by donor contributions (GtZ, EU, JICA, ADB, etc.), and various CP-related activities have taken place in several ministries. The uptake of CP in the industry has seemingly been weak, mainly due to lack of incentives and high transaction costs. Availability of information is very limited, in particular at the level of impacts of previous interventions in industry, but also regarding *which* enterprises have participated in previous CP activities and who was trained as national CP experts.

Planning of the UNIDO RECP Project started already in 2009, and the Project was launched/announced in June 2012 (prior to the Rio+20 Conference), with start-up in November 2012. The Project has been structured in five main components: 1. RECP Capacity and Network; 2. RECP Implementation and Replication; 3. RECP Policy and Regulatory Framework; 4. RECP Technology and Innovation; and 5. RECP Investment and Finance. The Principal Outcome is defined as: *“RECP concepts, methods, practices, technologies, synergies and policies implemented by enterprises, governments and suppliers of technology, finance and business services in particular in the target enterprise groups”*.

It took a long time for the *real* implementation to start, as it proved difficult to recruit a Chief Technical Advisor (CTA), who eventually came on board in June 2015, from which time the project implementation gained proper momentum. Even before the “real” implementation started; new national Green Industry and Sustainable Consumption and Production (SCP) initiatives, in addition to a wanted Cradle-to-Cradle (C2C) programme in textile industry (request by MoI to SECO), made it necessary to revise the project activities. The Amended Project Document (PD) was approved in May 2015. With the Amendment also a new sector was taken on board (textile), but the implementation period was not adjusted in light of the delays encountered in recruiting a CTA, so that the project implementation period *de facto* became around 3 years only (as opposed to the planned 5 years in the initial PD).

The Project is run by UNIDO (the CTA sitting in Bandung with part time Project Manager in Vienna) with 4 implementation partners (see above). UNIDO has seconded 7 national project staff to the partner institutions to support in implementation. The Project Management Committee (PMC) is the overall

steering body of the Project (with SECO, MoEF and MoI as full members and with UNIDO being ex-officio member). National experts/RECP assessors are trained in the Project and recruited by the Project to undertake RECP assessments in the demonstration enterprises with the guidance and support of the core project team (particularly CRECPI and CTB).

The Project Document's main strategy has been to "cast the net wide" and cover several industrial clusters/sectors with micro, small and medium size enterprises, and several geographical locations, in order to scale-up implementation.

2. PROJECT ASSESSMENT

2.1 Relevance

Relevance of most of the planned activities is fairly good and well in line with national policies and strategies, especially the 10-year Programme on Sustainable Consumption and Production (10YSCP) for Indonesia (by MoEF), the Green Industry interventions (by MoI), and the Sustainable Tourism destination Programme by the MoT. The methods used in the Project are based on several years of experience with RECP activities in UNIDO. However, the project logframe is not well formulated, especially the Objective and the (principal) Outcome, with partly wrong use of terminology and a misunderstanding on how the cause-effect of the elements should be tailored. The Project has several "outcomes" for the components formulated, but should only have *one* outcome for the Project. A couple of the deliverables/outputs are clearly very ambitious (e.g. establishment and operation of the National RECP Network; integrated knowledge management system in place), and a couple of results defined are depending on outside factors to gain momentum (e.g. policy framework put in place; financial instruments introduced and operational).

2.2 Project Effectiveness

The start-up of the Project was 2.5-3 year delayed as it was difficult to recruit the CTA, and the Project Manager in Vienna (later becoming the CTA) had (by default) limited capacity to start and follow-up the activities in Indonesia. Since the CTA came on board in June 2015, the activities gained momentum, to judge from the list of events in the Project, and the effectiveness has been satisfactory from that time. (When considering the progress from the startup of the Project in 2012, the effectiveness has of course been highly unsatisfactory).

Some target values of indicators, especially related to the RECP Implementation and Replication component, seem to be too ambitious. The objective and output indicators are not well formulated (e.g. one cannot assume the Mid-term Evaluation to verify the achievement of the programme objective or the (principal) outcome, both materializing *after* the Project is ended!). The indicators do not specify *when* the target values should be achieved. Only few of the indicators are SMART, which do not make them particularly useful for measuring progress. Some output indicators are unrealistic related to the number of industrial sectors, geographical areas and number of enterprises to be reached (e.g. 200 replication enterprises in Small Scale Industry Sector; 100+ replication enterprises in 3 industrial parks; replication of 100+ tourism enterprises; and replication in 200+ micro enterprises), especially when the implementation period was reduced from 5 to 3 effective years, and at the time of the Evaluation only piloting of RECP is ongoing in selected enterprises. The Team thus firmly believes that some target values will not be reached, and it is therefore a need to revise the present strategy and targets.

2.3 Project Efficiency

When considering the significant delay in recruiting the CTA and the lack of capacity of the PM to follow up the activities in Indonesia the first 3 years, the overall efficiency since 2012 has been highly unsatisfactory. However, from the CTA came onboard in June 2015 the efficiency has been satisfactory. Also expenditures in the Project show little progress up to June 2015 (only 6% spent). Around 32% of the funds have been spent when 42% of the implementation period has elapsed (from June 2015), showing an under-spending, especially on Components 4 and 5. It is noted that the travel budget item has been spent at the time of the Evaluation, with as much as 54% spent at the time the CTA took up position (June 2015), showing that a lot of travelling by the PM had taken place up to then (the first PM), but notably without project implementation gaining proper momentum. So far, no "manuals for RECP" have been produced (requested by the national experts and implementing institutions). Only PowerPoint

presentations have been used in the awareness raising and training so far (although in the experts' training accompanied by custom-made assessment documentation protocols and international reference RECP manuals). The CTA claims that proper manuals would be prepared at a later stage.

2.4 Project Impact, Sustainability and Mainstreaming

It is too early to detect any major impacts from the Project in the participating enterprises resulting from the assessments of the national experts, rather than smaller changes by harvesting the "low hanging fruits", of which some were identified even *before* the Project started. There is a significant risk that the present project strategy of "going wide" (many sectors, several geographical areas, different sizes of industries) might not lead to proper anchorage of the RECP principles in the participating industrial clusters, which is needed. This because at the time of the Evaluation only piloting in some industrial clusters have started, but in some not yet started (chemical, metal just started, Surabaya industrial zones, Lake Toba Tourism region and micro sectors at large). Replication to enterprises *beyond* piloting has not at all started, and by trying to follow the decided project strategy only "scratching the surface" in the various industrial clusters will be possible. The Team would strongly advise the Project to revise the strategy and downscale the ambitious and the targets to an achievable level. The Team believes that the best strategy would be *not* to start the planned activities in new sectors and locations, but to continue and expand to more enterprises in the sectors and locations already started, where also the RECP assessors are being trained at present (and surely gradually will be more efficient to replicate efforts). In this way, sustainability will at least be strengthened where activities are already on-going, instead of having weaker sustainability "all over the board".

The Evaluation Team got the clear impression that CRECPI in Bandung, staffed entirely by UNIDO recruited project staff (with minor administrative/managerial part time input from two ITB staff), has very slim prospects of being sustainable post-project, lacking forward-looking views at present. CTB, also housing national experts/RECP assessors trained in the Project, might be able to sustain the activities and even rollout post-project in the textile sector. CADGIE has also a good starting point of being able to sustain some of the RECP activities as part of the greening of industry efforts they have been mandated, also having permanent employees (MoI). The ICPC (from February 2016 run under a MoU between the MoEF and KADIN) has only part-time outside working staff from the private sector and academia (unpaid), and from the MoEF where ICPC is located. ICPC is however in the process of registering as a foundation allowed to receive external funding and undertake income-generating activities. There are suggestions of establishing an RECP expert roster and of ICPC brokering service contracts between experts and industry in the future. The Team thus believes that ICPC has a potential for being one of the main sustainable RECP hubs in the future in Indonesia.

The national experts/RECP assessors, mostly coming from academia (with a few from private consultancy and industrial part management companies), are still in the training process assessing the pilot industries at the time of the Evaluation. These experts surely need more training and practicing before they will have the appropriate proficiency to give advice to the enterprises without close coaching by the Project (as foreseen in the Amended PD). (Their contract with CRECPI and CTB included 25 working days over 6 months (of which 10 days of training), but all of them have spent around 50 days during a period of 9-12 months. This is more than expected on basis of UNIDO's international experience in the global RECP programme, possibly as a result of over-estimation of the consulting and problem solving capabilities of the trainee national expert.

Another serious stumbling block for sustainability is that the project activities to a large degree are depending on the proficiency of the enthusiastic and dedicated CTA. There is no one single person to work closely with (and second) him, but rather a team of staff in each of the partner institutions. The Project is assumed very vulnerable in case he should end his assignment. In order to secure sustainability it is, as part of an Exit Strategy that has to be prepared without delay, necessary to appoint someone with the right background and dedication to work closely with the CTA (national "Deputy CTA"-like person). Also other national staff could work more closely with the CTA, but *one* should be appointed the main person to bring RECP forward. Such person could maybe be found amongst the present part time officers working in ICPC (the Director?). Sustainability is also depending on the implementing partner institutions dedicating staff to work closely with the UNIDO-recruited national consultants during implementation, securing continuity post-project and ownership of the interventions.

2.5 Project Management, Monitoring and Networking

The part time Project Manager is sitting in Vienna, being overall responsible for the Project, notably monitoring progress versus provisions of the Project Document, financial aspects and contractual matters. As he is PM for several international projects (8 in total), he does not involve in the day-to-day management of the Project but leaves this to the CTA, who is one of the most knowledgeable persons regarding RECP in UNIDO at large.

The RECP Coordination Committee (RCC) has had 3 preparation meetings (with very much the same participants as in the PMC meetings, discussing the same issues), but has not yet started its expected work as NRECPI establisher and PMC advisor. (The MoEF promised to formally “invite membership” one year ago but nothing has happened so far). Guided by national experts’ consultations, and sector and regional dialogues, ICPC and the Project have therefore taken the initiative of establishing a two-pronged network model comprising an RECP Expert Pool and an RECP Forum (first meeting in RECP Expert Pool in November 2016). The national experts/RECP assessors could, in addition to participating in the RECP Expert Pool endeavour to form their own local network groups to exchange lessons learned as assessors, like the “What’s up”-group initiated by the project staff in Jakarta.

No special Monitoring and Evaluation (M&E) procedures have been developed for the Project, but the CTA is following the well-proven procedures based on lessons learned in RECP projects in other countries. Benefits in enterprises (energy and resource efficiency, environmental benefits, etc.) are also monitored using common RECP indicators. Progress reporting is good, with to-the-point structured reports semi-annually and shorter internal monthly reports.

Synergies are obtained with other UNIDO projects, notably with the SMARTFish Programme, and other projects, financed by SECO, the Energy Efficiency Project funded by the Global Environmental Facility (GEF), the SCORE programme of ILO and the Tourism Destination Management Programme by Swisscontact. The CTA is maintaining contact with the global RECP network and also has good communication with other related initiatives run by other institutions in Indonesia.

2.6 Crosscutting and Other Issues

UNIDO, commendably enough, has employed females as national associate experts, and with most national UNIDO-recruited project staff in fact being relatively young.

The core of the Project is all about using natural resources more efficiently and protecting the surroundings against pollution, in the enterprises and in society at large, so “the environment” is the ultimate core of the Project.

The project strategy is not leading to market distortion so far. The project planning was undertaken based on wide stakeholder consultations. A large selection of industries has been invited to the awareness seminars and the interested ones have volunteered as pilot enterprises in the Project, where the national experts are undertaking the RECP assessments.

The documents produced in the Project have an orderly and clear format (with headers and footer giving adequate information). However, the filing system in the Project could be improved by taking backups on individual hard disks, and establishing a drop box, or a similar cloud-based storage, for important documents, accessible by the project staff.

3. CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNED

3.1 Conclusions

- The Project implementation was almost 3 years delayed, *mainly* due to slow recruitment of the CTA. When full implementation started there were 3 years left of the Project, whereas the planned implementation period was 5 years.
- The Project was designed to scale-up RECP by “going wide” to several sectors and locations. Sustainability of the efforts is seriously at risk with spreading out too widely with the limited project time left, also creating higher transaction costs. The Team therefore suggests “going deeper” into the sectors and locations already started and securing a stronger anchorage there.
- The Project is to a large degree hinged on the proficiency and enthusiasm of the CTA, and is thus

vulnerable. A national “Deputy CTA”-like person is lacking to secure continuity post-project, being a possible future coordinator/hub of RECP. Permanent employees in the implementing partner institutions to work closely with the other UNIDO project staff are also to most degree lacking to secure ownership and continuity. An Exit Strategy has not yet been prepared.

- The RCC has not developed as intended (as advisor to the PMC), and has de facto not been properly established, not being the driver for NRECPI establishment. ICPC and the Project are now initiating an alternative two-pronged network model with an RECP Expert Pool and an RECP Forum.
- Legal enforcement of environmental industrial culprits is weak with little incentive for undertaking RECP in Indonesia, rather than reduction of operation costs.

3.2 Recommendations

- The Project should not start activities in new sectors or locations, but scale-up where it has already started.
- The Project should more actively support the efforts of ICPC to be established as a foundation and a hub for RECP in Indonesia in the future, as this institution seems to have the largest potential for sustainability.
- An Exit Strategy for the Project must be prepared, including engaging national staff to work closer with the CTA (“Deputy CTA”-like person) and with the other UNIDO-recruited project staff seconded to the institutions.
- SECO should consider gradually reducing influence of project management and leave more responsibility to the Indonesian ministries, who must be more active in securing sustainability.

3.3. Lessons Learned

- Preparation of project design and logframe must be consistent and follow the well-accepted Results-Based Management (RBM) and Results Chain principles. People with solid knowledge of such must QA the Project Document in UNIDO and with the donors.
- In any project, national staff in the participating institutions must be appointed at the start-up to take part in the project activities and work closely with the UNIDO-recruited project staff, securing sustainability through strengthening institutional capacity.

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PREFACE

ACRONYMS AND ABBREVIATIONS

GLOSSARY OF TERMS

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1. INTRODUCTION AND BACKGROUND

1.1 Evaluation Objectives, Methodology and Process

1.1.1 The Evaluation Team

The Evaluation Team (“the Team”) that undertook the Mid-term Evaluation (“the Evaluation”) comprised *Mr Tore Laugerud*, Lead Evaluator from Nordic Consulting Group (NCG) Norway and *Ms Farsidah Lubis*, a freelance consultant from Indonesia. The members of the Team were contracted individually and directly recruited by UNIDO, as they earlier¹ had been involved in evaluating UNIDO projects. The Evaluation Team was fully independent and was given the mandate to present its own assessments and recommendations regarding the status of the Project and the way forward.

1.1.2 Scope and Approach of the Evaluation

The Mid-term Evaluation of project SAP ID 100224 “National Resource Efficient and Cleaner Production (RECP) Programme Indonesia” was conducted from October through November 2016. The Evaluation was conducted around 4 years after the *official start-up* of the Project in November 2012, in fact being 4.5 years after the *official launching* of the Project on 5 June 2012, prior to the Rio+20 Conference. However, if considering the *real start-up* when the Chief Technical Advisor (CTA) came on board in late June 2015, the Project’s full implementation would have been ongoing for around 1 year and 3 months, with around 1 year and 9 months more to go until the Project’s targeted completion date of June 2018.

The scope, objectives and main questions addressed by the Evaluation are listed in the Terms of Reference (ToR) for the exercise (enclosed in *Annex 1*). The scope of the Evaluation covers the Project’s whole implementation period, extending from 2012 through the third quarter of 2016. The Evaluation gauged the extent to which the Project has succeeded in producing its stated outputs using the resources and the (limited) time available at its disposal. In addition to briefly evaluating the Project’s performance and progress to date, the Evaluation mainly assumed a forward-looking view in order to recommend means of improving project implementation for the remainder of the Project’s duration, as well as to summarize some few lessons learned for consideration in the implementation of similar UNIDO projects in other countries within the region.

(It should be noted that the nomination of the UNIDO RECP intervention in Indonesia is not consistent through the documents reviewed, as it sometimes is called a “programme” and sometimes a “project”. (Even in the Project Document (PD) the “Project title” (SAP ID in UNIDO) is given as “RECP Programme” (being the name of the Project. For simplicity reasons, the Team has tried to use the term “project” consistently throughout this report).

1.1.3 Information, Methods and Limitations

The Evaluation was carried out using conventional steps of such undertakings, including: a) review of documents in the consultants’ home offices; b) planning of fieldwork based on substantial inputs from the project management; c) conduct of fieldwork in Indonesia by interviewing project partners and project beneficiaries/target groups; and d) reporting. The Evaluation Team prepared a brief Inception Report as part of the start-up activities. The report is enclosed in *Annex 1* together with the ToR for the assignment, where salient points from the document review are highlighted. The documentation provided by the project management gave a fairly good picture of the Project’s development; with the progress reports being of high quality and therefore especially useful. The Team would like to comment that preparation of Inception Reports is normally useful in larger assignments with several staff members, on-going over a longer period of time. They are however not so useful for relatively “straight-forward” short evaluations that are conducted using a “normal” approach and applying commonly well proven methods, such as the present one.

The evaluation fieldwork in Indonesia was carried out during the period 10-19 October 2016 (see travel itinerary in *Annex 2* together with the list of people met and consulted during the Evaluation, being around 100 persons altogether). The Team spent 2 days in Jakarta meeting with the Project’s donor (State Secretariat for Economic Affairs in the Government of Switzerland (SECO), UNIDO project staff (including the ones seconded to the implementing partners), and the main project partner institutions (Indonesia

¹ Tore: “Independent UNIDO Evaluation in PR China, 2011” and “UNIDO CSR Evaluation Viet Nam, 2013”; and Ida: “Independent UNIDO Country Evaluation, Indonesia, 2015”

Cleaner Production Centre (ICPC), Centre for Assessment and Development of Green Industry and Environment (CADGIE) in the Ministry of Industry (MoI), Centre for Environment and Forestry Standard (CEFS) in the Ministry of Environment and Forestry (MoEF)) and the national project staff seconded to the implementation partners (ICPC and CADGIE). The Team also met with the officials/staff of the Ministry of Tourism (MoT) and the International Labour Organisation (ILO), the latter being responsible for the SCORE Project², which is also being financed by SECO, and with which the RECP project shares some common activities. The Team then travelled to Yogyakarta (see *Figure 1.1 in Annex 6*) and met jointly with the national experts that are being trained by the Project (assessing the tourism industry in the Sleman/Magelang area), managers of 2 participating hotels, staff of the Sleman Culture and Tourism Office and the Sleman Environment Agency. (Meeting with the Hotel and Tourism Association was scheduled but did not take place).

The Team thereafter continued its mission to Bandung, where it met with the UNIDO-recruited consultants of Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI), as well as CRECPI's Head and Deputy Head coming from the Bandung Institute of Technology Bandung ("Institut Teknologi Bandung" - ITB), and the Project's implementing partner - the Centre for Textile Bandung (CTB). The Evaluation Team also met with the Vice Rector of ITB and the Bandung Environment Agency, had a joint group meeting with the national experts being trained under the Project, briefly met with PT Ganesha Environment and Energy Services (GEES, being a commercial entity inside ITB to act as contracting partner for UNIDO for the activities of CRECPI under the Project), and finally had a meeting with the staff of a textile mill. The Team also visited Batam where it met with the management of one Industrial Estate, one participating industry (one industry was a "no show" so the programme had to be adjusted here), the group of national experts in the area, the Environmental Impact Management Agency (BEPEDAL) in Batam and the Batam Free Zone Authority.

The usefulness of the interviews obviously varied, with the meetings with the RECP assessors/national experts and the target enterprises being amongst the most useful outside Jakarta. Some of the main challenges faced by the Project were discussed in these meetings (elaborated further elsewhere in this report). Upon returning to Jakarta, UNIDO hosted a de-briefing session where some of the main observations and preliminary conclusions from the Evaluation Team were presented and commented upon by the meeting participants (list of participants included in *Annex 2*).

The Lead Evaluator had a very constructive telephone meeting with the Programme Manager in SECO HQs in Bern and the National Programme Officer in SECO Jakarta after returning to his home office. A debriefing for UNIDO staff was held on 4 November in Vienna, following a meeting with the UNIDO Project Manager and the UNIDO Evaluation Officer in charge of the Evaluation.

The RECP project is a "comprehensive" undertaking involving many stakeholders. The itinerary for the fieldwork was extremely tight, and the Evaluation would have surely benefitted from some additional time to enable the Team to go into more depth in conducting the Evaluation, by e.g. visiting more locations (such as e.g. the industrial estate in Makassar). Although the entire details of the Project's history and activities are not fully comprehended by the Team, its understanding is good enough to offer some forward looking comments and recommendations that would hopefully be useful for the rest of the Project's implementation period. As can be seen below, the main comments and recommendations are related to the project strategy and sustainability of the Project.

1.2 Country and Project Description

1.2.1 Brief Country and Sector Context

The initial Project Document (PD) dated March 2012 provides a very comprehensive and detailed description of the national and sector context into which the Project was planned. Hereunder only a brief introduction is given.

Indonesia, the largest archipelago in the world (comprising around 17,000 islands, totaling 9.8 million km² with 1.9 million being land area) has a population of around 261³ million (fourth most populous country in the world), but with a decreasing population growth rate of around 1.2% per year (October 2016). Population is unequally distributed, with around 60% living on Java Island (only 6% of total land

² Sustainable, Competitive and Responsible Enterprises

³ worldometers.com, November 2016

area). Around 30% of the population is urban. Indonesia was during the three decades up to 1997 one of the “Asian Tiger Economies”. Since 1998 (post Soeharto), Indonesia has experienced continued economic growth, being one of Asia’s democratic as well as economic success stories. The economy expanded by 5.18%⁴ in the second quarter of 2016, and Gross Domestic Product (GDP) annual growth rate in Indonesia averaged 5.35% from 2000 until 2016. Gross National Income per capita is USD 3,440 (up from USD 1,880 in 2008 and USD 560 in 2000) – a significant increase indeed.

In spite of the economic growth more than 28 million Indonesians still live below the poverty line (around 11%). Approximately 40% of the entire population remains vulnerable to falling into poverty, according to the World Bank. Eastern Indonesia continues to lag far behind the rest of the country. The country is ranked as number 110 (of 188 countries) as per the 2015 United Nations Development Programme (UNDP) Human Development Report (No. 111 in 2009). Over the last 40 years, Indonesia has notably made large progress in improving the health status of its citizens (infant mortality rates have dropped dramatically and life expectancy has increased to 71 years (for women).

The country is rich in natural resources, including oil, natural gas, coal, gold, silver, copper, tin and several other minerals, as well as in timber, spices and fish/seafood. Agricultural land covers ¼ of the land area, supporting around 10 million farmer families, with rice representing a major crop and is followed by secondary crops of corn, cassava, soybean and peanuts. Indonesia benefits from its location of being close to markets in Singapore, Hong Kong, Taiwan, China and Japan. Poor quality of infrastructure, however, remains one of the biggest obstacles to firms that intend to operate in Indonesia.

Manufacturing contributed 18.1% to GDP in February 2016 down from 26.4% in 2009, although still being the largest sector of the Indonesian economy together with mining. The next largest sectors are agriculture, husbandry, forestry and fishery and trade, hotels and restaurants and services. Around 80% of manufacturing industry is located on Java (2012 info), in total around 28,000 medium/large enterprises comprising 23% from the food/beverage sector, 18% from the textile sector, 18% from the wood/wood products/furniture sectors, 7% from the rubber/plastics sector and 5% each from chemicals and metal/machinery products sectors.

The business sector is fairly well organized, with the Indonesian Chamber of Commerce and Industry (KADIN) being the overall industry body with active member-based working groups in key areas (skills development, industry regulation, taxation and trade, science and technology). Additionally, a system of industry sector associations has been established (including e.g. the Indonesian Textile Institute, the Indonesian Tanners Association, the Association of Tire Companies, the Association of Furniture Industry, the Federation of Indonesia Chemical Industry, the Association of Electronic and Electrical Home Appliances Industries of Indonesia, the Indonesian Food and Beverage Producers Association, the Indonesian Foundry Industries Association, and the Association of Exporters and Producers of Indonesian Handicrafts). The Government of Indonesia has a policy that new industries need to be established in designated industrial zones or estates (also referred to as “industrial parks”). Some 80 industrial estates had already been established by the time of the Project’s start-up, and these estates are responsible for some 70% of the production of export goods (2012). The industrial estates are developed and managed by private companies (including national/international joint ventures) or state owned enterprises, with the industry composition and ownership structure varying highly between the different industrial estates, many of which are controlled by foreign companies. For several industrial estates the majority of companies are either in full or in part controlled by foreign companies.

The Government of Indonesia has actively enhanced Cleaner Production (CP) efforts since the mid 1990’s. In 1995 the Indonesian Government declared its National Commitment to Cleaner Production as a key mechanism for sustainable industrial development. In course of subsequent years the Government developed and adopted, with the support of several international cooperation projects, a national CP policy, which was launched in 2004. Under this policy, the Indonesia Cleaner Production Centre (ICPC) was also established in 2004. Since the establishment half a dozen other CP or related projects have been implemented with funding support from various donors, including e.g. USAID, the German KfW and the Japanese JICA, Asian Development Bank (ADB) and UNEP/Government of Sweden, and from 2011 EU (SWITCH Programme for SCP in Asia). The most profound support came from the German Technical Cooperation Company (GTZ GmbH, later changing name to GIZ) supporting the ICPC from 2004 to 2008 under the Indonesian-German Environmental Management Program (ProLH).

⁴ tradingeconomics.com, November 2016

The following ministries have been implementing RECP-related activities: Ministry of Industry (advocating green industry development, following its commitment to the Manila Green Industry Declaration); Ministry of Energy and Minerals Resources (programmes for energy-efficiency, including industrial energy efficiency, and environmentally responsible practices in the mining sector⁵); Ministry of Tourism (awareness and information activities fostering uptake of CP methods and practices for water and energy conservation, reduction of chemicals use (particularly cleansing agents) and waste minimization in particular in the accommodation sector); Ministry of Transportation (through its Blue Sky Programme various policy initiatives to promote fuel-efficient and clean modes of transport and improve vehicle inspections); previous Ministry of Forests and Estates - today MoEF (promotes a comprehensive approach to CP implementation along the value chain, i.e. cultivation, harvest, processing and product management); Ministry of Health (demonstration projects with CP in selected hospitals and promoting the application of CP practices in other hospitals and health care facilities); and Ministry of Agriculture (promoting policies and schemes to foster sustainable agricultural practices, including organic farming, and minimize in particular risks from pesticides and other agro-chemicals).

Experience from these previous programmes show that although professional training and policy support appear to have been relatively successful this far, and that considerable efforts appears to have also been invested in information and/or awareness activities and industry pilot projects, the previous outputs produced, and information on actual use and/or implementation of CP in enterprises is patchy if at all existent. It is also noted that previous technology transfer activities appear to have had a focus on creation of green soft loan schemes, and such schemes are reportedly being drawn upon slowly, whilst loan processes have also been reported as slow and cumbersome. Availability of information is very limited, in particular at the level of impacts of previous interventions in industry. There is also virtually no information on which enterprises did participate in earlier CP interventions and who has been trained as CP assessors/national experts in previous projects.

Nevertheless, the CP initiatives have evidently confirmed that CP would be meaningfully applied in the Indonesian manufacturing and service sectors. It is however concluded that the uptake of CP in enterprises is still low basically due to, amongst other reasons, incentives for CP being weak, especially environmental compliance costs are not yet a significant consideration to businesses, whilst also the monetary value of operational savings is subdued due to subsidies and low prices of water and energy⁶. This leaves only market forces as a strong driver, in particular for export producers, where environmental initiatives and chemical safety of products are mandated by overseas buyers. General incentives however pertain to savings on operational costs (on energy, materials, water and other essential process inputs); environmental compliance (and costs of achieving such); and market recognition (for improved environmental performance). It is further realized that transaction costs for implementation of CP are high, mostly due to: i) lack of access to information, services and technologies for CP; ii) applicability of the available CP services and technologies, and the value these generate to businesses); and iii) affordability as reflected in the costs of CP services and technologies, compared to the benefits they generate to businesses. This means that at the start-up of the Project and still at the time of the Mid-term Evaluation, further efforts are needed to improve applicability, by offering RECP methods, techniques and policies that are more valuable and/or easier to implement, and of course affordable.

The UNIDO RECP Project reflects well on pre-Project CP and related policy and projects, and was designed within the framework of the joint global UNIDO-UNEP RECP programme for developing and transition economies. At the start-up the Project contributed to achieving the (old) Millennium Development Goals (MDGs, especially MDG 7, 8 and 1). UNIDO has many years experience with CP, and in 1994, launched jointly with UNEP the NCPC Programme with the objective of increasing the competitiveness and productive capacity of industry, specifically Small and Medium Enterprises (SMEs).

⁵ The ministry is the coordinating agency for the UNIDO project on Energy Management Systems, (as per ISO 50,001 standard) funded by the Global Environment Facility (GEF).

⁶ The CTA comments to the Draft Report: *"observations are correct, yet apparently these are not reflected in the evaluators' assessment on efficiency and effectiveness. It had been expected during preparation phase that the project could easily hatch on past experiences, yet at the time of implementation it turned out that these past experiences were largely extinct. Hence, project had to rely more on international training materials, could not access Indonesian business cases etc, each of which would amongst others have contributed to the additional time spent by NEs on the enterprise assessments"*.

UNIDO and UNEP later extended the scope of their joint programme to Resource Efficient and Cleaner Production (RECP) to associate CP more profoundly with today's and tomorrow's most pressing environmental and resource use challenges, at the local, national and global scales. The experience from RECP in other countries is brought on board the Project in Indonesia.

1.2.2 Project Description

a) Project Fact Sheet:

Project title	National resource efficient and cleaner production (RECP) programme Indonesia
Project No.	XX/INS/09/X04 - SAP ID 100224.
Project Donor	The Government of Switzerland, State Secretariat for Economic Affairs (SECO)
Implementing Agency	UNIDO Industrial Resource Efficiency Division.
Project start and duration	Project announced publicly/"launched": 5 June 2012. Project start-up: November 2012. Initial project duration: 5 years
Project inputs (as per Project Document)	Net project budget: USD 3,893,636 + 13% support costs: USD 506,173 = UNIDO project total: USD 4,399,809 ⁷ (Donor contribution) National contributions: Counterpart in-kind input estimated to: USD 450,000, (Service income fee anticipated for ICPC and CRECPI: USD 175,000, from other sources).
Project objective	Improve resource productivity and environmental performance of manufacturing, tourism and micro-sector enterprises in Indonesia and thereby contribute to inclusive and sustainable industrial development
Principal outcome	RECP concepts, methods, practices, technologies, synergies and policies implemented by enterprises, governments, and suppliers of technology, finance and business services in particular in the target enterprise group
Project component outcomes	1. RECP Capacity and Network: Improved capacity for and widespread utilization of RECP services that support adaptation and adoption of RECP methods, practices and technologies 2. RECP Implementation and Replication: Increased implementation of RECP methods, practices and technologies by enterprises of the target groups with monitoring and verification of the environment, resource use and economic benefits accomplished 3. RECP Policy and Regulatory Framework: Policy frameworks strengthened and put in place that foster the utilization of RECP methods, practices and (policy) instruments for the realization of the aims and objectives of the government's key relevant sector policies (in particular environment, industry, energy efficiency and tourism) 4. RECP Technology and Innovation: Increased availability and affordability of suitable RECP technologies for the target enterprise groups in particular those contributing to and/or inspired by GC&E, IS and/or C2C 5. RECP Investment and Finance: Appropriate financial instruments for RECP investments in target enterprise groups proposed and promoted for implementation environment, industry, energy efficiency and tourism
Project Industrial Clusters	- (Small scale) industry sectors: Food processing, Textile, Metal products, Chemical products - Industrial zones: Batam, Makassar and Surabaya - Tourist regions: Sleman/Magelang and Lake Toba - Micro sectors: Coffee and palm sugar (changed from initial tofu and recycling/silverware)

⁷ The budget was increased in connection with the Amendment of the Project, by means of a reallocation of CHF 180,800 from the global RECP programme to the Indonesia RECP Project, to cover extension to the textile sector. The Project is thus covered by two funding sources ('grants' in UNIDO terminology), both transferred to UNIDO CHF 4,064,136 and CHF 180,800. As UNIDO only operates in USD and EUR, the grants were received in CHF but then by UNIDO bank converted at the bank exchange rate of the time (2012) into USD 4,212,412.64. As per Letter of Agreement with SECO there is still one installment to be disbursed for the RECP Indonesia project. This installment should be about CHF 420,000, excluding Programme Support Costs (PSCs).

Executing partners	<ul style="list-style-type: none"> - Centre for Resources Efficient and Cleaner Production Indonesian (CRECPI) - Centre for Textile Bandung (CTB) - Indonesia Cleaner Production Centre (ICPC) - Centre for Assessment and Development of Green Industry and Environment (CADGIE)
Government Counterpart Agencies	<ul style="list-style-type: none"> - Ministry of Industry (MoI) - Ministry of Environment and Forestry (MoEF) - Ministry of Tourism (MoT) - Ministry of Energy and Mineral Resources (MoEMR)

b) Project Background

In September 2008 ICPC approached UNIDO to join the UNIDO-UNEP NCPC Programme. In March 2009 UNIDO received an official request through the Ministry of Environment for support to the implementation of CP in Indonesia through ICPC. The Government of Switzerland, through the State Secretariat for Economic Affairs (SECO) in May 2009 agreed to fund preparatory assistance. A project strategy was formulated (draft in June 2009) and endorsed by the parties. The objective was to review recent and current CP initiatives in Indonesia and to develop, in consultation with national government, ICPC and stakeholders in the private and civil sectors, a tailor-made proposal for supporting the establishment and operation of the Indonesian Network for Resource Efficient and Cleaner Production (INRECP, later referred to as RECP Indonesia (RECPI)). The first draft Project Document was completed in 2010, and thereafter a lot of discussions between the parties (Government and industry alike) and adjustments of the PD took place, until the final version of the PD was ready in March 2012. It is understood that the private sector, being individual industries and industrial associations, was properly consulted during the project planning (with the first stakeholders consultation undertaken in June 2009). At this time, UNIDO could not start the implementation as the project funds had not been transferred (and consequently no staff had been recruited). Nevertheless, was officially launched (signed) “in a hurry” in June 2012 to be officially announced at the Rio+20 Conference the same month.

Funds were transferred from SECO to UNIDO in September 2012. The start-up date of the Project was in November 2012 when the Inception Phase was kicked-off, following the official Government Regulation regarding the Project being signed on 11 November 2012. *Figure 1.2 in Annex 6* shows key milestones during implementation of the Project for easy reference. *Figure 1.3* shows the timeline of the UNIDO staff employed in the Project.

c) Project Design and Description

The Project has been structured in five main components:

1. RECP Capacity and Network (3 main outputs)
2. RECP Implementation and Replication (4 main outputs)
3. RECP Policy and Regulatory Framework (4 main outputs)
4. RECP Technology and Innovation (3 main outputs)
5. RECP Investment and Finance (3 main outputs)

Each component has its own outcome (see above Fact Sheet) and activities. A *Principal Outcome* is synthesizing the component outcomes. *Figure 1.4 in Annex 6* illustrates the project logframe with objectives and outputs, for easy reference (with the text in blue being the amended text of the PD from May 2015). As commented upon later in this report, the logframe is not prepared according to the book”.

It is noted that project planning took a long time (from 2009 to 2012), and then it took a long time until real full implementation started on the ground (mid-2015). During this period, the Indonesian regulatory and planning framework for RECP at macro level had gradually changed and already at the time of the first Project Management Committee (PMC) meeting in November 2013, it was realized that the initial project design had been “overtaken by events” and had to be revised to reflect reality. The following national events had materialised and influenced such decision of project amendment:

-The programme “10 Year Sustainable Consumption and Production” (10YSCP, from 2013 to 2023) led by the MoEF; and the “Green Industry for Green Growth” sector strategy led by the MoI (2013-2019)⁸. (The

⁸ The Team was informed that MoI in fact started earlier with Green Industry. The first round of Green Industry awards ran during 2010.

National Development Planning Agency would mainstream 10YSCP and the Green Growth agenda through the national development planning process for period 2014-2019 with the support of MoEF and other relevant ministries).

- On 28 November 2013, SECO sent a letter to the Ministry of Industry (copying the PMC members) to notify that the “Cradle-to-Cradle” (C2C) project should be integrated under the RECP Project (notably especially relevant for the Center for Textile Bandung).

Thus changes to the components and the output packages to take into account the new policy developments and C2C had to take place (marked with blue text in *Figure 1.4*), the main ones being:

- Output 2.1: The textile sector was added as a fourth sector.
- Output 3.1: Policy goals were downscaled to focus on 10YSCP and Green Industry strategy.
- Output 3.2: The CTA explained: *“As policies had been initiated at time of project implementation, work stream 3 was restructured to support each of the policy domains. Hence de facto, the former sequential structure of work stream 3 (i.e. policy gap analysis, strategy formulation, instrument development and promotion) was changed to parallel structure to provide input in parallel to actual implementation of already announced sectoral policies in four ministries”*. De facto it was split into 2 main work streams within Ministry of Environment and Forestry and Ministry of Industry to be executed by ICPC and Indonesian Green Industry Development Centre (IGIDC, later renamed and becoming Centre for Assessment and Development of Green Industry and Environment (CADGI) from January 2016.
- Output 4.1, 4.2 and 4.3: A parallel activity on C2C in the textile industry was added for execution by the Centre for Textile Bandung (CTB). This main change from a sequential to a parallel set of outputs was, according to the CTA, essential. The former structure of consecutive needs and opportunity assessment, and pilot project support, was replaced by parallel activities on three different innovation platforms (respectively Green Chemistry and engineering (GC&E), IS and C2C).

It is noted that the amendment of the project design and subsequently revision and updating of the PD took a long time, around 1.5 years, and the Amendment to the Project Document was finally approved on 15 May 2015, also giving the project implementation deadline until 31 June 2018 (half a year of extension).

Box 1: Cradle to Cradle

C2C is a total quality management framework that supports companies to innovate their products in a manner that is not simply ‘less bad’ yet about all ‘more good’. The aspiration is that products are completely compatible with nature by closing the loop of materials use – the materials that make up a product are to be kept in closed loop that is ultimately only powered by energy from sun, similar to the cycling of materials in living systems. C2C therefore takes a particular focus on materials (including chemicals) used, and analyzes these in terms of either industrial nutrients (that need to be kept in circulation in industrial systems) or natural nutrients (that need to be returned to nature in a manner that they are again available for biological systems). C2C has been expanded into a rating system that is promoted and verified by the Cradle to Cradle Product Innovation Institute in the USA. The rating system is based on five criteria, respectively: renewable energy; clean water; material health; social responsibility; and material reutilization. Products can be certified at five levels: Basic, Bronze, Silver, Gold, and Platinum. Products certified at the Basic level have achieved a minimum set of requirements that show a commitment to future assessment and optimization, while Platinum represents a product ideally designed and produced for a C2C world. The C2C Product Innovation Institute accredits Assessment Bodies, which assist enterprises with product innovation and support applications for the product standard. In May 2015 there were fifteen Accredited Assessment Bodies (including eleven in Europe (including EPEA of Switzerland), and two each in North and South America), yet this list is constantly evolving (<http://www.c2ccertified.org/get-certified/find-an-assessor>). Should there prove to be an interest in C2C certification in Indonesia, it would be conceivable that an Indonesian organization goes through the process of accreditation to become C2C Assessment Body, provided that it would build up the necessary expertise and track record of product innovation.

Source: The Amendment document of RECP

1.2.3 Project Implementation Arrangement and Strategy

a) Implementation Arrangements

Reference is made to *Figure 1.6 in Annex 6*, showing the project arena, with the main partners and stakeholders and the main connections between them. *Figure 1.7* shows the main managerial set-up of the Project, as it is described in the Project Document⁹. Both figures are assumed self-explanatory, so only a brief introduction to the implementation arrangement is given below.

The main implementing institution is UNIDO, with national partners being: the Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI, established in 2013 for the purpose of promoting RECP, including for the benefit of the Project under the Institute of Technology Bandung (ITB))¹⁰, the Centre for Textile Bandung (CTB), the Indonesia Cleaner Production Centre in Jakarta (ICPCI, located in the Centre for Environment and Forestry Standards (CEFS) in the Ministry of Environmental and Forestry (MoEF) and steered by a MoU between MoEF and The Indonesian Chamber of Commerce and Industry (KADIN)¹¹, and the Centre for Assessment and Development of Green Industry and Environment (CADGIE, under the Ministry of Industry (MoI)). The CTA informed that *“the strategic decision to build the Project around both ICPC and CRECPI was taken in 2009, for multiple reasons, including that the set-up of ICPC was unsustainable (as turned out when basically shut down in 2013), while at the same time ICPC could not be bypassed (as it is established by Ministerial Decree of 2004). Moreover, it was agreed that Indonesia cannot be served through one agent and earlier efforts of GtZ to establish a network through ICPC had failed”*.

The UNIDO Project Manager (part time) sits in Vienna and the Chief Technical Advisor (CTA, full time) has his office in CRECPI, Bandung¹². These two staff, together with the National Project Officer (part time), sitting in the UNIDO Country Office (UCO) in Jakarta, constitutes the Project Management Team¹³. The overall project steering body is the Project Management Committee (PMC) where the donor (SECO) is member, together with the main governmental partners: MoEF, being the Chair (represented by the Director of CEFS), and the MoI. Ex-officio members (read: observers) in the PMC are the UNIDO Representative (leading the UCO), the Head, or Deputy Head, of CRECPI, and the CTA.

Under the Project, the Indonesian RECP Coordination Committee (RCC) was intended to be established, and at the time of the Evaluation had started with preparatory meetings. The RCC should intentionally give advice to the PMC, review and comment work plans, progress reports, etc., basically comprising high-level representatives from the relevant ministries, professional/knowledge institutions and the private business sector. The RCC was initially planned to have 9-11 members, but at the time of the Evaluation the number in the meeting had reached 16, with suggestions in the third preparatory meeting to increase the number of institutions further by including NGOs, think tanks, academia, etc. The initial plan was that the RCC should facilitate and guide the establishment of the Network for RECP Indonesia (NRECP), not yet established at the time of the Evaluation. (However, based on information from the CTA during the Evaluation, the RCC would not be established at all, see Section 2.5.3).

Other important actors in the Project are the national consultants recruited by UNIDO and seconded to the implementing partner institutions. These are: the National Programme Manager, the Associate Process Engineer, the Associate Process Chemist and the Tourist & Policy Associate in CRECPI; the Textile Specialist in CTB; the Advocacy and Network Manager and Environmental Policy Advisor in ICPC; and the Green Industry Advisor in CADGIE. Additionally, the national experts/RECP assessors (also in some documents referred to as “Business Service Providers” for RECP) are key partners in the Project. These are professionals that have applied to be trained and coached under the Project, coming mostly from academia (state and private universities in project regions), industrial park management agencies and some private consultants, who have been trained in RECP under the Project and who have been

⁹ And based on info given in the preparatory RCC minutes of meeting.

¹⁰ CRECPI was established by decision of the rector/senate of ITB, with a view to host part of implementation of the RECP Project. CRECPI is operationally embedded in the larger Centre for Environmental Studies. Therefore CRECPI is headed by senior ITB staff (Head and Deputy Head), not by project staff. Commitments for CRECPI are signed on behalf of ITB.

¹¹ Through a Memorandum of Understanding (MoU)

¹² The CTA estimates that he spends 50% of his time supporting CRECPI activities and the remaining time supporting the three other implementing partners.

¹³ Notably the National Programme Manager is not in the Management Team, according to the PD.

contracted through either CRECPI or CTB to assist the demonstration companies by undertaking RECP assessments and providing advice on how to improve their environmental and business performance. They will (hopefully) be contracted to assist the industry also in the future with RECP assessments and advice. The beneficiaries are of course the participating industries in the five industrial clusters listed above.

b) Implementation Strategy

The project strategy has not been properly explained or reasoned in the PD (although a section has this heading), which the Evaluation Team considers being a shortcoming of the document. The PD says a lot about which *activities* the Project should comprise, but not so much explaining the strategic thinking behind and underlying rationale leading to such activities. The Evaluation Team nevertheless interprets the Project to have the following principal aims:

- to mainstream RECP concepts, methods, and techniques into existing government policies, rules and regulations;
- to advocate the operationalization of these concepts, methods and techniques to industries, in particular SMEs;
- to develop a network of national experts and other stakeholders in the area of RECP.

These different aims would “normally” require initiation of different strategies and the requirement of different inputs. UNIDO however, according to the first PM (later the CTA), wanted to do things “differently” in Indonesia, as compared to what had been done in other countries (concentrating on a few sectors and locations). The overall implementation strategy has therefore been to “cast the net widely” both thematically/sector-wise and geographically in the country (*Figure 1.8 in Annex 6* refers). Through this “innovative” strategy the aim has obviously been to reach a larger number of enterprises, simply achieving a major rollout of RECP amongst industries.

As can be seen in *Section 2.2.2*, the Evaluation Team believes that the effect of this strategy is dubious, and questions why this was not properly discussed/assessed by UNIDO, and SECO as the donor, as part of the appraisal of the Project Document (if such appraisal took place at all). The Project’s intention to allow for and “upscale” resulted in the defined targets in different geographical locations, different sectors of industries, and different scales of enterprises. Finally also, following the amendment of the Project Document in 2015, the concept for C2C industry was introduced within the textile industry, adding yet another sector to the initial ones of food products, metal products and chemical industries. All in all, the Evaluation Team has some difficulties in seeing the consistent logic behind the selection of target sector groups, as it might look like the strategy is lacking focus.

On the positive side, it is noted that the Project is cooperating and coordinating training sessions with the SMARTFish Programme (run by UNIDO) and the SCORE Programme (Sustaining Competitive and Responsible Enterprises (run by the International Labour Organisation (ILO)), both financed by SECO, which is a commendable move.

c) Financial and contractual issues

UNIDO has signed (institutional) service contracts with CTB and PT Ganesha Environment and Energy Services (GEES), the latter being a commercial unit of ITB to manage the contractual matters for implementation of the UNIDO RECP project. It is noted that ITB is a state university and therefore under government regulations can only receive external funds for dedicated purposes through one of their so called “commercial units” (in the alternative it becomes donations to the general ledger of University and would be at the discretion of its management to invest in core activities of ITB, i.e. teaching and research). At the request of ITB, UNIDO therefore works through GEES. GEES is thus an operational entity of ITB, its shares are held by ITB rectorate, faculties, and other “entities” within the “ITB community”. GEES is also audited/controlled, etc. by ITB rectorate. The UNIDO funds to CRECPI are thus channeled through GEES, as CRECPI is not yet being a registered unit in ITB, and thus not allowed to receive funds directly from UNIDO. These service contracts are signed against a detailed work plan and budget (for 6-9 months at a time), and the contracts are set up as a combination of “fixed costs” (smaller share, covering part time staff allocated from the respective institutions, admin, phones, etc.) and a “reimbursable expenses” component (main share of the contracts, to cover the costs for travel, workshops, trainings and the costs related to the work of the national experts/RECP assessors). The payments under these contracts are on

invoice basis with submission of evidence for the actually incurred expenses. In addition, UNIDO recruited and pays the long-term national project staff (8 of them) from project funds and these are seconded by UNIDO to work embedded in the 4 implementing partner institutions.

It is understood that a similar arrangement would have been desirable with the two other implementing partners, ICPC and CADGIE. However, this is not possible within the present rules of UNIDO, not being allowed to sign service contracts with national government institutions (in case of ICPC and CADGIE UNIDO would have to sign contracts with MoEF and MoI respectively). So for the activities implemented through CADGIE and ICPC, UNIDO picks up all the bills directly. UNIDO also books travels, arranges hotels for training venues, hires interpreters, pays printing, etc¹⁴ for all the trainings not covered by the sub-contracts with CRECPI and CTB.

There is notably an additional budgetary forecast each for CRECPI (named IGIDC in the initial PD) and ICPC at the bottom of the budget in the Project Document “Fee for service income” (being USD 50,000 for ICPC and USD 125,000 for CRECPI)¹⁵. These were the only two implementing partners at the start-up of the Project in 2012, as CTB was included as partner during project Amendment when textile sector was taken on board the Project, and the “new” CADGIE was established *primo* 2016¹⁶. The CTA informed the Evaluation Team that *“The sums included are ‘fee for service’ incomes which are expected to materialize for ICPC and CRECPI, through co-financing of selected project activities by third parties (hence not UNIDO, not SECO). These would be project funds that do not hit UNIDO account, and hence should not be confused with the service contracts between UNIDO and the implementing partners. As an example, UNEP funded participation of ICPC and CRECPI representatives to the regional RECPnet meeting in Cambodia in July 2016; Gov of Japan paid participation of CADGIE and CRECPI in the expert group meeting on green industry policy in Feb 2015 (by coincidence (?) also in Cambodia). H&M has offered to sponsor some of RECP training activities in textile sector in 2017”*.

2. PROJECT ASSESSMENT

2.1 Project Relevance

Indonesia espoused principles of Cleaner Production (CP) in the mid1990's. The country consequently developed and adopted a National Cleaner Production Policy (2004), which led to the establishment of the Indonesia Cleaner Production Centre (ICPC) in 2004. Half a decade onward, however, it was noted that the level of consideration for and adoption of CP amongst industries had still remained low.

The National Resource Efficient and Cleaner Production (NRECP) Programme for Indonesia was initiated to address the above situation, with the project strategy being prepared and endorsed in 2009 and the Project Proposal being developed during the period 2009-2011. It was designed to scale-up, mainstream and expand the application of CP in Indonesia, taking advantage of the resources, expertise and experiences of National Cleaner Production Centers and Programmes (NCPCs/NCPPs) globally, as established by UNIDO in collaboration with UNEP, and supported under their joint Resource Efficient and Cleaner Production (RECP) project.

The Project was also foreseen to foster the creation of the Indonesia Network for Resource Efficient and Cleaner Production (INRECP), which was to have been supported by two agencies, namely the Indonesia Cleaner Production Centre (ICPC), which operates under the Ministry of the Environment and Forestry (MoEF); and the Indonesia Green Industry Development Centre (IGIDC, later renamed as –CRECPI at ITB). Ownership of the National RECP Programme was initially vested in the then Ministry of Environment (MoE) and Ministry of Industry, with the Project being registered as an ODA project under the MoE.

¹⁴ It was also informed that UNIDO on a couple of occasions picked up the invoices directly for specific minor CRECPI activities that had not been foreseen (additional travel to demonstration companies and/or additional review meetings in a hotel).

¹⁵ There is notably a decimal typo in the initial PD, where the sum to IGIDC is given as USD 1,250,000 (UNIDO and SECO collective oversight).

¹⁶ The precursor of CADGIE (which was called Centre for Industry and Environment) had been in operation since at least 2009. Its mandate expanded over time, as Green Industry gained momentum in Indonesia (and UNIDO claims the credit for that, as MoI got inspiration from the UNIDO Green Industry projects, and also with all delays (both in project formulation and start of implementation) UNIDO managed to give inputs at critical times, under RECP programme as well as piggy backing on other regional initiatives.

In 2013, however, the Government of Indonesia launched two new policy instruments that changed the institutional arrangements for the implementation of CP in the country, namely the 10-year Programme on Sustainable Consumption and Production (10YSCP) for Indonesia by the MoEF and the Green Industry interventions by the MoI¹⁷. The associated changes in institutional arrangements for the implementation of CP included implementation through the Indonesia Cleaner Production Centre (ICPC), from September 2014 operating under the joint auspices of MoEF and KADIN (Indonesian Chamber of Commerce and Industry), and the CADGIE. These changes in institutional arrangements did not affect the relevance¹⁸ of the National RECP Programme Indonesia but they did affect the design of the Project as some activities had to be altered and redistributed between the project implementing partners.

A Project Amendment Document was subsequently issued to reflect the following changes and more importantly to document their impact on the Project's ownership status and activities:

- MoEF and MoI adjusted the institutional arrangements to drive the further development and implementation of the SCP and Green Industry (GI) agendas (Section 2.4 in the Amended PD refers).
- The CTB was included as a project implementing partner.
- MoI had renewed its Environment Sector Division into the Centre for Assessment and Development of Green Industry & Environment (CADGIE) in January 2016 to manage and/or oversee the execution of the GIR in the ministry.
- In recognition of the addition of the textile sector with a pilot Cradle-to-Cradle (C2C) component, the responsible MoI technical center, i.e. the Centre for Textile Bandung, was also added as implementing partner.

Indonesia's Medium Term National Plan 2015-2019 was signed under Presidential Regulation Number 2 on 8 January 2015 two years after the launch of the 10SCP for Indonesia and the GIR. The Medium Term National Development Plan confirms the relevance of the National RECP Programme to Indonesia's national development plan. Article 10.2.9 concerns *"Enhancing the Quality of the Environment, Development of Sustainable Production and Consumption Patterns and Conservation and Utilization of Biodiversity Economy"*. The Article discusses the development of environmental data and information systems, strengthening frameworks for management and capacity to develop the environment, increasing use of science and technology and human resources as well as mainstreaming biodiversity into national development. Other relevant articles of the Medium Term Development Plan include Article 10.2.7 (*"Strengthening the Supply, Mix and Efficiency of Energy Consumption"*), which discusses production of energy resources, provision of energy structures and infrastructures, utilization of bio-energy and energy efficiency, increase of new and renewable energy resources.

The Evaluation Team therefore concludes that the relevance of the Project is very good, especially after the amendment of the Project Document in 2015, as it is well embedded in the national policies, strategies and development plans of Indonesia. The initial planning of the Project Document was said to have been done in close of consultation with the ministries and the main industrial sectors in the country. With both the MoEF and MoI being members of the Project Management Committee (PMC) the national counterpart bodies have an integral role in the development of the technical cooperation strategies in the Project and are actively supporting the implementation of the project approach. The Project is fully embedded in UNIDO's Inclusive and Sustainable Industrial Development (ISID, see Box 2) and UN Development Assistance Plan (UNDAP, see Box 3).

¹⁷ Also referred to as "Green Industry Roadmap" (GIR) by some. Project management informed: *"The precursor of CADGIE (which was called Centre for Industry and Environment) had been in operation since at least 2009. Its mandate expanded over time, as Green Industry gained momentum in Indonesia (and UNIDO can take credit for that, as Min of Industry got inspiration from the UNIDO Green Industry projects, and also with all delays (both in project formulation and start of implementation) UNIDO managed to give inputs at critical times, under RECP programme as well as piggy backing on other regional initiatives)"*.

¹⁸ The Project takes its origin and relevance from the "Government of Indonesia and UNIDO Country Programme" signed by the parties (Government of Indonesia on 18 June 2009 and by UNIDO Director General on 30 June 2009) and the official letter of request received on the subject project from the Government (Ministry of Environment) dated 31 March 2009, further reinforced by the letters of support for the proposed national RECP programme contained in annex 3 of the National Resource Efficient and Cleaner Production (RECP) project document.

Box 2: ISID

The Lima Declaration, adopted by UNIDO's Member States in December 2013, set the foundation for a new vision of inclusive and sustainable industrial development (ISID) and highlighted the role of industrialization as a driver for development. "Inclusive" in this context means that industrial development must include all countries and all peoples, as well as the private sector, civil society organizations, multinational development institutions, and all parts of the UN system, and offer equal opportunities and an equitable distribution of the benefits of industrialization to all stakeholders. The term "sustainable" addresses the need to decouple the prosperity generated from industrial activities from excessive natural resource use and negative environmental impacts. ISID therefore implies that no one is left behind and all parts of society benefit from industrial progress, which also provides the means for tackling critical social and humanitarian needs.

Source: The UNIDO Website

Box 3: UNDAP

The United Nations Development Assistance Plan (UNDAP) is a common business plan for the United Nations agencies and national partners, aligned to the priorities of the host country and the internationally agreed development goals. It was launched by former UNDP Administrator James Speth.[1] The UNDAP builds on the current joint programming processes for developing an UNDAF and UNDAF Action Plan. UNDAP aims to reduce duplication in planning requirements for UN agencies and national partners, and for some agencies to replace the current requirements of the UNDAF and agency-specific country programme planning documents. UNDAP aims to bring together agency specific planning requirements in a consistent and seamless manner, and ensure a 'necessary and sufficient' programme logic in the results chain and resource requirements. The plan outlines linkages to regional and global initiatives at the sectoral level, forging greater synergy between UN plans in addition to support of larger multilateral and bilateral programmes. Annual reviews and adjustments ensure the continued relevance of the UNDAP; the plan and its implementation modalities ensure coherence and consistency from actions to results to reporting, yielding a synergistic effect.

Source: Wikipedia

The general RECP methods, tools and practices promoted under the Project are based on several years of global experience (UNIDO and UNEP), and are also seen relevant in Indonesia. So far, as training of the national experts/RECP assessors are still ongoing at the time of the Mid-term Evaluation, specific methods and modus operandi for the individual industrial sectors in the Project is still outstanding, but the Project confirms that it will be detailed and customized during the remaining project period. Such "manuals" specific for each participating industrial sector have explicitly been requested by the national experts and the target enterprises.

The Project Logframe

Reference is made to *Figure 1.4 in Annex 6*, showing the project logframe. As mentioned earlier, the logframe is not exactly prepared according to common principles of Results-Based Management (RBM). Reference is therefore made to *Figure 1.5 in Annex 1* showing the Results Chain, reflecting the elements of RBM as most donors and implementing agents relate to. Reference is also made the "Glossary of Evaluation-related Terms" in the beginning of this report. I should be noted that the terminology used might slightly differ between the various donors and implementing partners, but the elements and the definition of these are based on a common international understanding (initially being defined by the Development Assistance Committee of the Organisation for Economic Cooperation and Development (OECD DAC).

The Evaluation Team has the following comments to the logframe for the Project:

- **Programme Objective** (also in literature referred to as "goal" or "long-term objective") is referring to the long-term impact that the Project would contribute to. It is however important to understand that there might be several aspects, projects and programmes that would contribute to this objective, and the materializing of it is of course completely out of the control of the project management. It is however a "rule" in the formulation of logframes that the long-term objective should be "as close as possible" to the outcome/purpose of the project, and as such should ideally "significantly" contribute to the fulfillment of the objective. The objective should contain only one clear statement on how the future state should be.

Leave alone the fact that the formulation is starting with a verb (“improve”) and should have placed the verb at the end of the sentence; the objective contains two messages, where the first part is describing “the means” (“*improve resource productivity and environmental performance....*”), whereas the second part describes “the end” (“*... inclusive and sustainable industrial development*”). Surely, the last part of the sentence is much further into the future than the first part, and indeed is very generic statement, that is not really suitable as an objective. The first part is also referring to “Indonesia”, which is also far ahead, and should have been restricted to e.g. the locations where the Project is operating. The Team therefore believes that a suitable formulation for the Programme Objective would e.g. have been: “Resource productivity and environmental performance of manufacturing, tourism and micro-sector enterprises is improved in the project areas”¹⁹.

- In the Project there is one **Principal Outcome** formulated and then **Outcomes** under each component, which is uncommon. *Normally*, a project has only one outcome formulated, (Also in literature referred to as the “purpose” of the project), which in fact represents the main rationale for implementing the Project in the first place. This is the main results level in the Results Chain! The outcome is the effect of the outputs in the Project and will (with high probability materialise within reasonable time (short-medium horizon) after the outputs have been delivered. The project management can however not guarantee the outcome, but with a high probability it will materialise. In this case the Principal Outcome is far too ambitiously formulated as it refers to “*RECP concepts, methods, practices, technologies, synergies and policies implemented...*” by all stakeholders involved (“*enterprises, government, suppliers of technology, finance and business services*”). However, the last part of the formulation refers to “*in particular in the target enterprises group*”, which is a strange reference as e.g. government and finance services would not implement measures in the project enterprises alone, but merely cover larger sectors.

But the most serious shortcoming of the formulation is that surely, with a high level of probability, the elements listed would *not* be “implemented” based on the Project alone, as there so many projects and influencing factors that is far beyond the reach of the project management, and where the Project is just one smaller piece of the puzzle. Until the Principal Outcome, as formulated, is reached, a lot of processes will have to take place and this will take time in a country like Indonesia, not at all being suitable as an outcome. Many formulations could be used to reflect the expected outcome/purpose, but the Team would suggest e.g. something along the lines of: “RECP concepts, methods, practices and technologies are starting to roll-out and being replicated in the project areas”, which will give a reasonable cause-effect logic to the Programme Objective.

- The **five project components** seems to contain elements that reasonably should be included in such a comprehensive project, and in many ways it is practical to divide such project into parts, as it is easier to distribute the responsibilities of the various tasks amongst the participating partners, according to their mandate, competence and interests. It is however not common to formulate outcomes for each component, but rather to summaries the outputs/deliverables of the various activities in one overall “results” statement. The problem in this case is also that the outcomes to a large degree repeats the main message of the (principal) outcome and as such does not belong at *that* level in the logframe. The results are deliverables that are *guaranteed* by the project management, but the outcomes are not guaranteed. Below follows a brief assessment of each of the Project components with the formulated outputs (the detailed activities are not commented upon):
 - **Component 1: RECP Capacity end Network.** “*Outcome 1: Improved capacity for and widespread utilisation of RECP services that support adaptation and adoption of RECP methods, practices and technologies*”. Assuming that people have not been sleeping during the training lessons, this is actually the deliverable/output of capacity building (and not an outcome being the effect of the outputs), leave alone the “*widespread utilisation*”, which is farther into the future. The Result could e.g. read: “Capacity for RECP services that support adaptation and adoption of RECP methods, practices and technologies has been improved”. Output 1.1 is relevant, as it refers to the participating implementing partner institutions where trained RECP assessors/national experts are employed. Output 1.2 seems to be very ambitious on behalf of the national RECP network to be established, and the project management

¹⁹ It should be noted that the Evaluation Team has not been tasked with re-formulating the entire logframe of the Project, as such exercise is a joint one amongst the implementing partners only. The Team is merely giving some leads as to how the logframe elements *could* be formulated.

has also indicated that this network will not be fully operational at the time of the Project completing. The network will hopefully be established during the project, but surely not fully operational, so the ambitions here could thus preferably be lowered. Output 1.3 is also highly ambitious, as the Project will start a process only (develop and pilot), but it is up to the enterprises to carry on, mainstream and roll-out. Ambitions could thus be lowered.

- **Component 2: RECP Implementation and Replication.** *“Outcome 2: Increased implementation of RECP methods, practices and technologies by enterprises of the target groups with monitoring and verification of the environment, resource use and economic benefits accomplished”.* As the project was planned to be implemented over 5 years, some of the enterprises that were trained/approached in the first batch would hopefully have started to implement RECP methods during the project duration, so the core of this formulation is understood and not “far out”. The verb “accomplished” seem to be very ambitious indeed, and the combination “Increased implementation ... accomplished” does not make sense, as one cannot “accomplish increased implementation. RECP is a continuous process of improvements. The result could e.g. read: “Implementation of RECP Methods, practices and technologies by enterprises of the target groups have started”. The outputs have largely the same formulation for the four industrial clusters included in the Project. Apart from the Team suggesting to scale down the ambitious by reducing the number of sectors (see later in this report), it seems to be realistic to implement a “*customised programme*” (read as pilot such programme) in selected (reduced number of) industrial clusters. It is recommended not to start activities related to Output 2.4 (no yet started).
- **Component 3: RECP Policy and Regulatory Framework.** *“Outcome 3: Policy frameworks strengthened and put in place that foster the utilization of RECP methods, practices and (policy) instruments for the realization of the aims and objectives of the government’s key relevant sector policies (in particular environment, industry, energy efficiency and tourism)”.* This is a highly irrelevant formulation, as even if the Project could influence on the process of policy formulations, this is totally out of the hands of the project management, as it is up to the government/ministries to formulate policies, strategies and regulations, and such processes take time, also in Indonesia. It is totally out of the control of the Project. Changes in policies will thus take place long after the Project has completed. The result for this advocating and lobbying component could e.g. read: “Methods and practices, as input to the process of improving national policies and regulations related to resource efficient cleaner production, have been promoted and advocated towards the appropriate national authorities”. All the outputs relate to methods, practices and instruments being “promoted”, which seems relevant, as this only refers to lobbying, not promising anything materialising.
- **Component 4: RECP Technology and Innovation.** *“Outcome 4: Increased availability and affordability of suitable RECP technologies for the target enterprise groups in particular those contributing to and/or inspired by GC&E, IS and/or C2C”.* This is also unrealistic result of the project component, as it will happen in the farther future, totally outside the control of the Project. It also contains the expression “*inspired by*”, which is an unclear formulation. It should also be realised that in case one promotes “*affordable*” technology, this is closely related to Component 5 dealing with financing possibilities. The result could e.g. read: “Relevant RECP technologies for the target enterprise groups have been identified and promoted”. The formulation of outputs seems relevant, as they only promise that technology is identified and promoted in the enterprises.
- **Component 5: RECP Investment and Finance.** *“Outcome 5: Appropriate financial instruments for RECP investments in target enterprise groups proposed and promoted for implementation environment, industry, energy efficiency and tourism)”.* As the verbs proposed and promoted is used, the Project does not guarantee anything, but rather is part of a lobbying process towards the establishment of appropriate financial instruments to the established by the relevant authorities in the future. This seems reasonable, and is reflected in Outputs 5.1 and 5.2. The formulation Outcome 5 could be the aggregated result of that component, with the unchanged formulation. However, Output 5.3 is assuming that the financial instruments are introduced during the project period, which is utterly unrealistic, being out of the control of the Project. Consequently this output cannot be an “output”/“deliverable” guaranteed by the project management.

In general, the Evaluation Team is a bit surprised that the logframe has been approved in its present form without anyone (project partners, UNIDO or SECO alike) commenting that is not well prepared, as it does not comply with normal logframe modalities. The terminology used is not consistent and clearly misunderstood, the casual connections between the various levels is not appropriate and a couple of the

outputs are unrealistic, even within a 5-year implementation period. Basically however, most of the activities with adjacent outputs, are relevant. The Team does not find the number of outputs too extensive for such a comprehensive project, and obviously, not all activities require the same input, with notably Components 1 and 2 being the most resource-demanding (also reflected in the budget).

2.2 Project Effectiveness

2.2.1 Introduction and Logframe Indicators

Reference is made to *Figure 1.1 in Annex 6*, showing that the project implementation has been significantly delayed as compared to the planned schedule at start-up. This was *mainly* due to the long and cumbersome process of recruiting the CTA, being the main staff located in Indonesia delegated the local managerial responsibility by the Project Manager (see *Section 2.3 on Efficiency*), and thus also partly due to limited managerial capacity in UNIDO Vienna. The CTA took up his position in late June 2015 and from that time onwards the implementation caught momentum, based on the amended PD from May 2015. This means that at the time of the Evaluation, *real* full-fledged implementation had been ongoing for around 15 months, with around 21 months left of the implementation period. (It is also noted that also national policy developments and reshuffling of government mandates after the presidential election of 2014 had caught up on the project design and implementation modalities, so a project amendment was needed).

Reference is also made to the logframe (*Figure 1.4 in Annex 6*), listing the main outputs of the activities, towards which the effectiveness of the Project will be measured. *Table 1 in Annex 5* lists the detailed project logframe including the formulated indicators with the means of verification, in addition to the progress status of all the activities as prepared by the project management. The table largely shows the progress as presented in the January-June 2016 Progress Report, supplemented by a couple of achievements from the period July-September 2016 (marked with yellow shading).

The Evaluation Team wants to comment that the indicators and means of verification are *not* well formulated. It is noted that the Programme Objective, being in fact the long-term goal of the Project, refers to the Mid-term Evaluation and the Final Evaluation for verification, which must reflect a lack of understanding of the nature of the various components of a logframe and Results-Based Management (RBM) in general. The indicators of the objective (e.g. reduced environmental footprint, increased resource productivity, policies/regulations implemented/enforced, high-impact RECP technologies made available through proper financing options) can of course only be verified some time (read: years) following the completion of the Project²⁰. The same method of verification (Mid-term Evaluation and Final Evaluation) is listed for the Principal Outcome and the Component Outcomes, which is also based on a misunderstanding, as the outcomes represent the *effect* of the outputs, and such are normally seen some time *after* the outputs have been delivered. Another weakness of the outcome indicators is that they do not state *when* the target values should be reached. (In general according to international well-accepted principles, indicators must be SMART in order to be useful (**s**pecific, **m** measurable, **a**ttainable/achievable, **r**elevant and **t**ime-bound)).

In *Table 2 in Annex 5* the main *quantitative* indicators are singled out under each project components with the achievements as per September 2016.

It should be noted that although *Table 1* does not show *significant* progress since June 2016, several activities has been ongoing that will hopefully lead to tangible results to the reported in the next half-year progress report (July-December 2016)²¹.

²⁰ The CTA in his comments to the Draft Report: “this is only partially true. At project completion of course implementation of RECP options and policies will just have started and as such their total benefit can only be determined years into the future. Yet, it is also clear that if there is not yet any demonstrable/measurable benefit at project completion, there will be no long-term benefits. In other words something would have to have been implemented at project end and the benefits thereof can be measured, recognizing that these would then be an underestimate of the total benefit likely to have occurred in the longer run”.

²¹ The CTA in his comments to the Draft Report: “The observation is not backed by facts. Firstly it was only 3 months and notably the 3 months with the most important national holidays. Secondly and notwithstanding the above, the project delivered during this period 4 industry trainings (each of 1 day), one expert training and one policy training (2 days each), one sector technical seminar (1 day) and one international environmental technology workshop (2 days), and undertook review meetings/on site assessments at 10 demonstration enterprises”. The Evaluation Team choses to retain the statement, as it should be read in relative terms.

2.2.2 Project Achievements

Below follows a brief summary of the achievements under each of the project components (outputs):

Outcome 1: RECP Capacity and Network

59 national experts (RECP Assessors) have been trained in 5 groups (which is nearly 80% of the target value), but these are not yet fully operational as service providers. Based on the interviews with the national experts, more coaching and exposure is needed in order to make the experts fully operational on their own. Also the advanced training in RECP topics has not yet been undertaken. The NRECPI has not yet been established. Planning of the RECP award scheme has started, and 3 regional consultations and 2 sector dialogues have been undertaken. The primer/booklet and the production of other information material have not progressed, but a prototype website has been designed (not operational) and 11 awareness seminars have been arranged in 7 locations (being 40% of target number of seminars).

Outcome 2: RECP Implementation and Replication

RECP assessments are ongoing in some 32 (pilot) industries in textile and food sectors (target 50 in the four sectors), but no tangible results from remedial measures are detected yet, and no replication to new industries has therefore started, as this is too early (target 150)²². RECP assessments are also ongoing for 19 enterprises in the industrial estates of Makassar and Batam (Surabaya not yet started, target 75)), but any replication of practices of RECP involving 30-40 enterprises per zone (100+ in total) and collective RECP options have not started in the estates. Likewise with tourism sector where RECP assessment is underway in 18 hotels/tourism villages (target more than 40), and replication has not yet started (target more than 100). Assessment work with micro enterprises has not yet started and the target here is promotion and in more than 200 enterprises). RECP techniques in micro enterprises have not at all started²³.

Outcome 3: RECP Policy and Regulatory Framework

Action plan for the MoEF under planning (actions identified related to PROPER²⁴ rating, training, and AMDAL²⁵ integration), but regional trials not started. RECP action plan for MoI is not yet developed and promoted, but the following has been undertaken: Green Industry (GI) policy training, GI assessors training, industry outreach and facilitation of GI standards and GI award, in additional to 4 GI sector standards developed and launched. RECP agenda for Ministry of Energy and Mineral Resources (MoEMR) not started, but activities towards RECP planning for MoT started with training for sustainable tourism destination facilitators.

This means that the mainstreaming of RECP in the various relevant ministries has started. However, it is realized that the development of standards and especially the promotion of RECP in the various ministries in the longer term is mainly the responsibility of the ministries themselves. In other words, the Project can only *contribute* to such promotion, and the success of these activities/outputs are mostly *outside* the control of the project management. As such, the outputs should ideally not have been formulated as they are, but more “loosely” with the limited role of the Project to influence the processes more explicitly formulated.

Outcome 4: RECP Technology and Innovation

The activities under this component have not yet properly started at the time of the Evaluation²⁶, as they

²² The project management states: “... feel that the programme strategy remains ill-understood and/or lost in translation [by the Team]. It was never the intent to work with these 600 enterprises in the same manner, that is why Component 2 is: “(a) called implementation and replication, which was meant to capture that in first part of sector intervention we would work intensively with ‘expert-executed’ assessments (nicknamed then ‘implementation’) and in second part through different forms of ‘self-assessments’ under the guidance of experts, yet not done by experts (nicknamed ‘replication’); and (b) is grouped in 4 subcategories, each meant to invoke different mechanisms for the replication phase, either by sector, or on regional basis, etc. This was quite elaborated in the original Project Document, yet with the amendment document, this seems to have gotten a bit out of sight (and of course, there are new people now in all positions)”. The Team appreciates this explanation, but it does not alter the assessment of the Team of the target number.

²³ Although it is noted that under the food sector component support is already provided to eight micro-scale rice milling units in West Java.

²⁴ Corporate Environmental Assessment and Rating Scheme

²⁵ Indonesia’s Impact Environmental Assessment system (“*Analisis Mengenai Dampak Lingkungan*”).

²⁶ Except for the international environmental technology workshop for textile sector held on 26-27 September 2016.

are contingent on completion of the first round of industry assessments (still ongoing). As such, there is no evidence, or even indications, at this stage in the implementation of any documented success in the implementation of innovative RECP technologies and methods in the Project.

Outcome 5: RECP Investment and Finance

None of the activities under this outcome have started yet. As noted in the previous section above, especially Output 5.3 is utterly unrealistic to achieve as it is outside the control of the Project, fully depending on the financing schemes being established and operational. This will take more time and must be taken up by the ministries with the assistance of larger financing institutions, e.g. the World Bank or ADB. Documenting the effect of such schemes will materialise even further into the future...

To complete the picture of outputs so far in the Project, *Table 3* in *Annex 5* lists all the events undertaken in the Project till date (information meetings, seminars, workshops, trainings, awareness raisings, etc.), which gives a good overview. The table also, under separate heading, shows the “networking, outreach and partnership activities” in the Project. The table clearly shows that just a few events were arranged in 2013 and 2014, and none first half of 2015. However, from after the CTA took up his position, the activities really caught momentum in the second half of 2015 and this high activity level continued into 2016.

Overall effectiveness

The Evaluation Team notes that when considering that the *real* implementation started mid-2015, the progress related to defined outputs so far is *satisfactory*. However, when considering that the Project formally started in 2012, the progress has been, needless to say, *highly unsatisfactory* till date. Nevertheless, it seems to be some way to go before the RECP implementing partners are progressing to a state where they *strategically* have embedded, institutionalized and mainstreamed their function as RECP service providers. The implementing partner that seems to have reached the farthest in building up internal capacity for RECP services is the Centre for Textile Bandung (CTB) where several in-house experts are in the process of being trained as RECP assessors. During the Evaluation, the Team noted especially one enterprise that showed *clear* signs of incentivizing effectively towards RECP uptake (a wire factory in Batam). (It is however fair to mention that the number of enterprises visited is not representative for all the ones participating in the Project, adding to that the difference in scale and type of enterprises. As such, it is difficult, or almost impossible, to analyse the effectiveness of interventions on a group of beneficiaries that have little in common with one another).

The aim of the Project is to reach out to around 12 enterprises in each of the small industry sectors (food processing, textile, metal products and chemical products), meaning around 50 enterprises, and to document RECP benefits. Additionally, the Project expects the replication of measures in another 50 enterprises in each of the sectors food, metal and chemical, altogether 200 enterprises during the Project. *How* this scaling up should take place is not properly elaborated in the project design, and the Evaluation Team believes that this target is close to “wishful thinking”, at least when spreading out on so different types of enterprises and also geographically. This conclusion is also based on the observations during the Evaluation, and especially the discussions with the national experts and the enterprises, them relaying that more training and time is needed to anchor the process properly. Things will presumably take much more time than anticipated in the PD (see below), and the Amendment was planned *without* the significant delay reducing the effective implementation period from 5 years to 3 years in mind. (It is difficult for the Evaluation Team to assess whether it would be possible to reach the targets if say another 2 years were added to the implementation period. It however seems that the target still remains somewhat ambitious, and would in any case require a “seamless” implementation and more dedicated enterprises in order to be reached. The Team fears that the road would not be that “smooth”).

According to the PD, the term “scaling-up” is interpreted as follows: “*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), whereas mainstreaming is best understood as embedding drivers and incentives for RECP implementation (stronger incentives for RECP consideration and its continued implementation)*”. The project management clearly wants to reach the target number of enterprises by spreading to as many sectors and geographical areas as possible.

The Evaluation Team believes that the above quote is a slight misunderstanding of how the term “up-scaling” should be understood, as scaling up mostly means increasing the numbers (according to several net-based dictionaries) – simply getting more enterprises on board with RECP measures. This surely *could* mean increasing the numbers in several industrial sectors in different areas, which obviously *could* mean “casting the net wide”, both sector-wise and geographically, as the project strategy seems to be aiming at this. However, it could also mean increasing the number of enterprises *within* the same sectors and the areas already started to reach as many industries as possible.

The Team would recommend the Project to “go deep” instead of wide and concentrate the efforts during the remaining project period on the sectors and geographical areas where activities have been started already. In case a “critical mass” of enterprises is reached in those sectors and areas, there is higher probability that the number of enterprises reached will be closer to the planned number (although it is not assumed that *all* can be reached during the remaining period, effectively 1.5 years). With more enterprises in the same sectors and areas approached there is also a larger probability that there will be some “self roll-out” of activities also after the Project is completed (see sustainability below). The scaling-up to more “similar” enterprises could gain some momentum, also with the national experts getting more practice in the said sectors and thus being gradually more efficient. Then also the basis for a market for their services could be better established. Although the total number of target enterprises stipulated for replication are likely to be outside the reach during the remaining project period, at least more enterprises could be reached by changing the strategy to go deep, rather than spreading too thinly out. With such “going deeper” approach also the transaction costs of the Project is assumed to be more limited than trying to spread too much out sector-wise and geographic-wise.

In general, the Evaluation Team believes that there are too many activities planned in the Project and there is a danger that not all of them can be implemented satisfactorily within the time remaining till mid-2018. When the Project scope was amended (May 2015), the project duration was only extended with half a year, whereas one more industry sector was included in the project (textile). This means when 3 years remained of the Project, another sector was included to an already comprehensive project that initially should take 5 years. There thus seems to be a mismatch between available time left and the scope of the Project.

As some activities have not even started at the time of the Evaluation, the Team believes that it is time now to critically look at the project scope and strategy, and see if the Project should preferably be down-scaled to be commensurable with the time left. In general, the Team believes that it is much better to do fewer activities more thoroughly than many activities “superficially”. (See also sustainability). In case a two-year no-cost extension can be given beyond June 2018, it goes without saying that more enterprises could be reached, and the replication stage would catch more momentum. Whether the indicated number of replicated enterprises will be reached during such an extension is however difficult to say. The Team however still assumes that the target values are on the high side with such scenario, and need to be critically reviewed and possibly adjusted. However, as another time extension has not yet been requested or discussed, the Team will not go further into this alternative.

It is fair to note that the project management has a much more optimistic view on the prospect of achieving the target values, even when, in practical terms, only 1,5 years of the Project remains. The CTA states: “If you look at the breakdown [read as target values], it would be approximately 1/3rd of enterprises (~200) with an expert assessment (‘demonstrations’) and 2/3rd of enterprises (~400) through the different replicator mechanisms. So far we have only done the first type of expert assessments, yet we are gearing up for first replications.

Regardless of number of sectors or regions, 600 could be a challenging yet not unimaginable number. Just as a numerical exercise, there are several 10,000s of small scale rice mills in Indonesia with very similar and relatively simple unit operations for which we are trying to get to standard solutions that could just be copied and pasted by others. Why would it not be possible to assist 200 in the next 1.5 yr and assist them with short intervention to work out how they can make these standard solutions work in their operations – think more in terms of what is done in agricultural extension work and rural development, where such is common practice. Similar for batik workshops. Then, hotels and restaurants, also relatively common solutions that can be promoted. And that remains regardless of the number of sectors and regions involved, just diversity in addition to scale adds to putting RECP firmly on the agenda of business (it undermines the first refusal argument of SMEs, ‘it cannot be done in my region and/or in my sector’).”

The Team commends the CTA for his positive attitude regarding what is achievable, but based on the progress so far and the statements from the stakeholders, remains with the conclusion that the target values are unrealistic and simply not achievable. The suggestion of “sharpening” the strategy and reducing the target values to an obtainable level still stands.

2.3 Project Efficiency

The Project was officially announced/launched in June 2012 prior to the Rio+20 Conference, and had its start-up in November 2012. The Project however, as mentioned several time beforehand, experienced significant delays in recruiting the CTA. Initially, the donor required the CTA to be a Swiss national²⁷, but no candidates at all applied. The position was then announced by the UNIDO HQs, without the Swiss national requirement (first time 20.01.2014 as an L5 position, 17.10.2014 as an L6 position and finally 13.03.2015 as an L6 position). The UNIDO staff member having project management responsibility at this time submitted an application, was retained as the most suitable candidate in the recruitment process, and took up the position as CTA, stationed in Bandung (CRECPI). At that time (June 2015) this solution seemed like the most suitable one in order to get the full implementation properly started, as the frustration with the donor and the Indonesian ministries had reached a very high level, with a danger of the Project being stopped altogether.

When considering that the full implementation started 3 years after the Project was signed and announced, the efficiency was until mid-2015 of course highly unsatisfactory. The Project Manager had started some introductory activities (see *Table 3 in Annex 5*) on his short-term visits to the country, but surely this was not at all a very efficient way of implementing the Project²⁸. As the Project Manager also was the Head of the RECP Unit in UNIDO and had a lot of other tasks on his hands, it is also fair to say that there was no-one in UNIDO that had the time/opportunity to kick-off the activities in the Project the first 3 years (as notably that should be the task of the CTA). The National Programme Manager took up his position in April 2014 in CRECPI, but was virtually alone in the Project for more than one year establishing CRECPI and the local Project set-up. However, when considering the efficiency from the time CTA started working, a lot of activities have been undertaken and the efficiency is satisfactory. From mid-2015 also the other UNIDO recruited project staff (8 in total) came on board (the last one in April 2016) leading to a gradual increase in implementation momentum.

It is noted that the monetary resources from SECO have been available since September 2012, so that funds availability has not been a bottleneck in implementation. The in-kind counterpart input has also been timely, following the pace of project implementation. It also seems that the quality of the input by UNIDO national and international experts has been good once coming on board, especially the input of the CTA, who is probably the best qualified RECP expert in UNIDO globally. The quality of the training also seems to be adequate. In the beginning only the national experts went through the assessment training, but based on experience from the first trainings now also staff from the enterprises are involved in such training, which seems like a commendable initiative.

Some stakeholders interviewed however considered the awareness raising and training events to be “repetitive”, without so far going into many details in the specific sectors related to the Indonesian situation. Only PowerPoint presentations have been used so far for training and awareness raising, with little written material produced and distributed²⁹. Several of the persons interviewed were actually waiting for written hard copy “manuals” on how to make the step-by-step assessments in the various industrial sectors. The CTA explained that such manuals would eventually be prepared, but unlike many other projects that have spent first year on preparing materials, it was decided to start with internationally available resource materials and develop national materials upon completion of first round of company assessments to reflect Indonesian examples and experiences in the resource manuals.

²⁷ By the KOMPAS (an Indonesian daily) on 3 November 2013.

²⁸ It was informed that there had in fact been some earlier introductory activities (not reported in the progress reports though), that were partly funded from preparatory assistance and other sources (including Austrian regional project). This included support for Indonesia participation in Green Industry Conferences (2009, 2011, 2013) and RECP network conferences (2009, 2011, 2013), organization of ASEAN Regional RECP Conference (Jan 2011) and support for hosting of the Asia Pacific Roundtable on Sustainable Consumption and Production in Jogjakarta in 2011

²⁹ The CTA in his comments to the Draft Report: “In addition to powerpoints provided, the project prepared customized assessment documentation protocols and provided to all experts a set of international reference materials”. The perception by the stakeholders however still stands as their point of view.

The Evaluation Team therefore concludes that whereas the awareness raising seems to be adequate, further and more detailed reach-out to the enterprises has so far not been according to the expectations of the beneficiaries. It seems that the deeper understanding of RECP still remains to be properly anchored in the enterprises.

The full understanding of RECP methods and implementation of RECP options has seemingly not yet reached a sustainable level with the national experts/RECP assessors. They are still working on their first assessments with some of them on a “steep learning curve”, according to themselves. The RECP assessors interviewed by the Team claimed that no *final* assessment reports have yet been submitted at the time of the Evaluation³⁰. The experts are provided and contracted by CRECPI (4) and CTB (14), and in their contracts on the assessments it is assumed that the whole exercise (including training sessions) would take an aggregated total of 25 working days during a 6-months period. The experts however all claimed that they had used much more time (45-50 working days) over a period of 9-12 months. As such, the efficiency of the work of the experts has not been satisfactory. There might be several reasons for this, being clearly outside the control of UNIDO. Notably, the experience of the experts was not fully adequate as to the tasks they were going to perform, as most experts are from academia, they have limited background as consultants/advisors, which is another role. Obviously, the experts need more training in order to be able to provide efficient and useful services to the enterprises by themselves, clearly also expressed by themselves.

The history of project expenditures also illustrated the slow start of the Project, only gaining proper momentum from mid-2015:

2012 - 2014:	5.5% (of initial committed funding)
Jan - Jun 2015:	5.9% (of amended/increased budget)
June - Dec 2015:	13.2%
Jan - June 2016:	28.5%

The table in *Annex 4* shows the expenditures in the Project from 1 January 2013 (no costs had been debited the Project before that date³¹) until/including September 2016, against the budget. The table gives a good overview of the use of funds on various project components and on various costs items. It should be noted that in-kind contribution from the partners are not validated or accounted for in the Project (own time input, use of offices, etc.). So far, around 32% of the funds have been spent, when around 42% of the *real* implementation period has elapsed (calculated from June 2015). However, when considering that around 6% had been spent up to June 2015, real expenditures the last 15 months have been around 26%. This means that the efficiency related to expenditures have been rather satisfactory, although still with under-spending.

The expenditures in Component 1 (largely covering all the capacity building and outreach activities) has reached almost 44%, being commensurable with the time elapsed (since June 2015). This also goes for the management and monitoring costs, adding up to 44%, as expected, as this comprises salaries of staff. Components 4 and 5 of the Project have not yet properly started (expenditures so far being 11.7% and 2.3% respectively), so it is expected that the rate of expenditure will gradually catch up here. There are however no obvious signs at the time of the Evaluation that the Project will *not* be able to spend all the funds available, even if changing the strategy. Definitely the transaction costs would be reduced if going deep rather wide.

Another issue that can be read from the table in *Annex 4*, is that the budget for “staff travel” is already spent (101.3%). This could be “worrying”, as travels for the rest of the project period must then be covered by reallocating funds from other budget lines. By “going deep”, such re-allocation could be limited. It is noted that by June 2015 (at the time the CTA came on board) 54% of that budget item had already been spent, most likely due to the travels by the then Project Manager to/from Indonesia to keep the Project “floating” until the CTA was recruited. When considering the lack of project progress during the first 3 years, it is fair to say that this was not a very cost-effective use of travel funds³².

³⁰ The CTA however in comments to the Draft Report claimed that the “*first 10 final assessment reports had been submitted and were being reviewed by company management and project staff at the time of the Evaluation*”. The Evaluation Team however understood that these reports are still drafts that will be discussed and revised.

³¹ Some costs had accrued, but according to the CTA these had been incurred against other ongoing regional projects.

³² The CTA in his comments to the Draft Report states that time was also spent on amending the PD and obtaining

2.4 Project Impact, Sustainability and Mainstreaming

2.4.1 The Enterprises

As the Mid-term Evaluation is undertaken only around 15 months after *real* full-fledged implementation started, with 21 months implementation left to go, it is too early to detect any significant impact from the Project with the beneficiary enterprises. Also, it is fair to say that as the Evaluation Team, in line with the agreed budget available for the Evaluation, only was allowed time to visit a handful of beneficiary enterprises, the statistical basis for drawing firm conclusions is somewhat meager! Having said that, the statements from the several national experts that are working with the enterprises on RECP improvements have also been taken on board the assessment of the Evaluation Team related to impact and sustainability.

Some industries visited said that they, based on the (preliminary) recommendations from the national experts' assessment, had made some minor adjustments in their operations (notably related to "low hanging fruits" only, like introducing LED light bulbs, stopping liquid leakages, changes in ventilation, identifying possibilities for waste being used as input factor in other industries, etc.). There are thus indications that the Project has an impact on the participating enterprises' operations, although just to a minor degree at this stage.

Some enterprises also mentioned that they had decided to make some operational changes even *before* the experts made their assessments, and that the experts' recommendations were fully in line with their own considerations. However, having an "outsider" suggesting remedial measures sometimes have more "punch" vis-à-vis enterprise management than their own internal suggestions. As such, the RECP assessors might play an important role in facilitating changes that already have been identified by the industry staff.

The mentioned strategy of the Project is to scale up to more industries and more geographical areas than where it is operating today. *Figure 2.1 in Annex 6* illustrates the scope of the Project related to the industry clusters, and what has been started and what is planned to be started. The danger by spreading too much out (sector-wise and geographically) is that such "scratching the surface" during the limited time left will not lead to proper anchorage and ownership in the different sectors and areas, making the sustainability very vulnerable. On the other hand, by trying to reach a critical mass of participating enterprises, e.g. in one industrial zone, will surely increase the probability of some activities continuing after the Project is completed. The Evaluation Team would thus strongly advise *not* to start RECP activities with new sectors (chemical and micro sectors³³) and not in new geographical areas (lake Toba³⁴, Surabaya). It is believed that such revised strategy has a better chance of success than what is planned, considering that in practical term only 1.5 years remain of the project period.

Obviously also, as project Component 5 (financing options) has not yet started, there is no readily available overview of the financing schemes that possibly might exist for enterprises to making larger investments in RECP measures beyond the "low hanging fruits" (investment in expensive machinery and equipment). According to the enterprises spoken with they were not aware of any such preferential financing schemes existing in Indonesia today to boost investments in greening the industry, but this could be due to ignorance of the existence of such mechanisms, rather than they are not existing. In any case, it is important that the Project implements the two first outputs of the component in order to entertain whether such financial schemes exist or not, and also give recommendations on how Indonesia could establish such mechanisms to facilitate greening of its industry to meet the intentions in the national policies. The establishment of such mechanisms is surely outside the scope of the Project (5.3) and should be taken out of the revised work plan. Such establishment must be done by the Government supported by larger financing institutions (World Bank, ADB or similar).

So far, there are of course no signs of the effects in the enterprises leading to socio-economic impact, such as employment or income generation, improved worker and community health, gender equality or

consensus amongst the stakeholders to the changes. This is of course true, but it does not really alter the main observation of the Evaluation Team.

³³ It is understood that awareness raising has started in metal industry, so the Team understands that it might be difficult to stop the activities there, although ideally it should not be taken further.

³⁴ Some introductory activities are seemingly on the way at the time of preparing the draft report, but the Team would still advise not to continue further here.

ultimately poverty reduction. This is far too early as such effects are long-term objectives and depending on so many factors totally outside the control of the Project. Also, there is no clear cause-effect from enterprises implementing RECP measures to increased employment and reduced poverty. It could be hoped that preferential financing mechanisms for implementing more capital-intensive investments in the enterprises going green *might* lead to increased sales and thus increased employment, but this is merely speculation at this stage.

2.4.2 The Project Implementing Partners

The Evaluation Team believes that the 4 implementing partners in the Project have different levels of strengthened capacities so far in the Project, indicated as follows:

- Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI), Bandung: (In the initial PD, this center was referred to as Indonesia Green Industry Development Centre – IGIDC, but later the name was changed). The center is in fact established³⁵ as a “unit” under the Centre for Environmental Studies in the Bandung Institute of Technology (ITB) to host the Project, but not (yet) formally registered as a separate institution (being just “a project” so far). The UNIDO employed National Programme Manager, in fact started the “real” establishment of CRECPI when coming on board in April 2014. The Head and Deputy Head of CRECPI are part time staff from ITB (around 20%) and the rest of the staff are full time paid by the Project (CTA, National Programme Manager, Associate Process Chemist, Associate Process Engineer and Tourist & Policy Associates, although all of these also serves the other implementing partners). In addition, it is understood that a C2C expert will be hired by UNIDO to undertake training in 6-8 selected textile industries through CTB). The structure of the CRECPI is shown in *Figure 2.2 in Annex 6*. The hired UNIDO consultants will most likely leave CRECPI when the Project is finished, unless ITB has plans of retaining the consultants, which they do not have at present. There are no views on how to staff CRECPI in general more permanently, or any plans on how to make the operations sustainable, e.g. through selling services to the industry. The sustainability of CRECPI therefore seems almost non-existent at the time of the Evaluation (with the present management and administrative set-up)³⁶.
- Centre for Textile Bandung (CTB): This is well-established center with around 100 permanent staff. 2 of the staff have been trained as Green Auditors (under the MoI) independent of the Project (but co-delivered by the CTA and the GI Policy Advisor of the RECP Programme), and some staff still present were trained in CP under ICPC some few years back (project financed by GiZ). Capacity has also been strengthened during the Project, with 7 staff trained and practicing as RECP assessors/national experts (14 contracted), and plans of more staff being trained. One full time UNIDO consultant is paid by the Project and seconded to CTB – the Textile Specialist. One permanent staff of CTB has been appointed the RECP Coordinator, working closely with the project staff to scale up the Project in the textile sector. The Coordinator’s salary is partly paid by the Project and direct project costs are refunded. As this center is serving the textile industry only, capacity surely has been strengthened through training of the permanent employees, and there is a RECP Coordinator appointed. Thus, there is a good potential for sustainability of the project interventions in this institution related to the textile industry alone.
- Centre for Assessment and Development of Green Industry and Environment (CADGIE): This center was previously called Centre for Assessment of Green Industry & Environment (CAGIE, established in 2009 under the MoI), but was “renewed” in January 2015 under its present name. This center is responsible for pursuing Green Industry (GI) issues at central level in the MoI, and according to the UNIDO consultant seconded to CADGIE more specifically “*this body has been getting intense in developing fundamental infrastructure policies. It covers GIS - Green Industry Standards (till Oct16 already work on 19 GIS which is 8 officially published by MoI), Green Industry Award guidelines (officially launched by Minister of Industry on March 2016) and also developing Certification Bodies policies as well as its selections*”. CADGIE hopes to become (in 2017?) a certifying body for various ISO standards in industry.

CADGIE would use the RECP project to introduce GI in the enterprises, and as such the Project is boosting the activities of the institution in an integrated manner, also having one UNIDO project staff full time seconded – the Green Industry Advisor. The Center has some 30 employees. Only 1 staff has so far been trained as national RECP expert in CADGIE, but there are plans of training more³⁷. According to

³⁵ Decision to establish CRECPI in October 2013, the center was inaugurated in June 2014.

³⁶ The CTA claims: “*Commitments for CRECPI are signed on behalf of ITB. This would have to be seen as a contribution to sustainability*”. The Team does not see this connection as the views for staffing are still lacking at this point in time.

³⁷ The CTA comments to the Draft Report: “*Yet project already delivered other and more customized training for CADGIE, including: half day introductory training; 3 day RECP/GI policy training; and contribution to GI Auditor training (two batches)*”.

information given to the Team all of the employees have been trained in basic Green Industry concepts, being to a large degree similar to RECP. As the (new) center is in its start-up phase after the restructuring with new mandates, it is still in the stage of establishing itself, finding its place and gaining momentum on its role in industry. In the opinion of the Evaluation Team, CADGIE might have a good starting point of continuing the RECP activities started under the Project also post-project, being part of the MoI with permanently employed staff in charge for Green Industry/Energy/Environment as a core of their job descriptions. It is understood that CADGIE's Strategic Plan, both annual and 5-years projection, clearly reflects the key implementation methods of RECP. As the center will enhance greening of both existing and new industries, the prospect of sustainability of activities is imminent.

- **Indonesia Cleaner Production Centre (ICPC):** Established in 2004 and heavily supported by GtZ (now GiZ) until 2008, from when it was supported by smaller donor support from EU SWITCH programme. By the time of planning the RECP UNIDO Project, ICPC maintained very little momentum with virtually no financial support left. However, it was taken on board as a project partner due to its status, mandate and history³⁸, to lead the environmental policy component (Outcome 4), and coordinate and support the establishment and development of the NRECPI, with technical support from CRECPI. ICPC however was suspended in January 2013 due to no activities on-going, but the re-organised ICPC was *launched* in September 2014 and the new ICPC was *confirmed* by Government in February 2016. It is now co-managed by MoEF and KADIN (through an MoU) and is located in the Centre for Environment and Forestry Standards (CEFS) in the MoEF. There are 2 full-time UNIDO-recruited consultants seconded to ICPC, the Environmental Policy Advisor and the Advocacy and Network Manager, the latter being responsible for boosting the establishment of the RECP Network (NRECPI) in the country. The rest of the staff in ICPC are part time employees coming from CEFS and the industry as seen in *Figure 2.3 in Annex 6*.

The initial PD says: *"ICPC will expand its current networking role and become the key node for INRECP and undertake information and advocacy functions"*. This statement clearly tells that the role of ICPC in the future RECP network and activities would most likely be a key one. The national staff in ICPC is part time, on *"good intent and personal commitment"*, acts pro-bono, with all wearing multiple other hats. However, the Director of the institution had some sound visions of the role of ICPC in the foreseeable future: ICPC should be registered as a foundation (hopefully within the end of 2016) in order to be able to receive funding directly and to have income-generating activities (read: selling RECP services, trainings, etc.). ICPC should build up a register/roster for national experts trained in RECP and who could be called for services in the need of the industries. ICPC could also negotiate and sign contracts with the industries for such services and with the national experts undertaking the assessments, reducing the risks of both parties. The center has thus views outside the policy role it should plant in the Project.

ICPC has a relatively longer history than the other RECP-related institutions recently established, has been doing cleaner production (CP) activities since 2004 and is well known to the stakeholders and some donors alike. With the staff now being trained under the Project and with the ownership from both the private sectors and the ministry, it is assumed that this institution will be one of the most (if not *the* most) sustainable RECP institutions post-project. As such, it could be a good idea for the Project to give more attention and support to ICPC in establishing itself as a foundation and preparing itself to be a RECP "center of excellence", in addition to continue building capacity of the staff. The Evaluation Team therefore believes that ICPC should get a more profound position/status in the Project during the rest of the project implementation, beyond running the policy component, in order to better prepare the institution for post-project life. Part of this strengthening should also be firmer commitments from especially KADIN, but also the MoEF, to sustain the institution in the future. Another idea could be to give the ICPC Director, and/or other staff, a more active role in the Project itself (see below) for the rest of the implementation period.

It is fair to conclude that at the time of the Evaluation none of the 4 implementing institutions, or any other network institutions, may be with the exception of CTB covering the textile sector alone, is in the process of developing any "coordination mechanism" which can substitute the functions currently executed by the Chief Technical Advisor (CTA) and his team, and secure continuity and sustainability of the interventions started in the Project. It was the initial intention that both ICPC and CRECPI could operate side-by-side on RECP issues as *"Indonesia cannot be served through one agent"* and earlier efforts

³⁸ ICPC could in fact not be bypassed (as it is established by Ministerial Decree of 2004).

of GtZ to establish a network through ICPC had failed. This is surely a worry, and the issue of securing such continuity must be looked into without delay as part of an Exit Strategy that has to be developed for the Project.

2.4.3 The National Experts/RECP Assessors

During the Evaluation the Team met with 4 groups of national experts (also in documents referred to as “RECP assessors”), being the professionals trained to undertake assessments of the RECP situation in the enterprises and to give advice on how to improve the effectiveness related to energy use and environmental management (e.g. waste handling, reduction of water consumption and wastewater discharges, etc.). The experts are basically professionals with some years of working experience (with a couple of exceptions) mostly from academia (universities and research institutions), but also with a few from the private consultancy sector. Several of the experts are working as lecturers in environmental management topics. The motivation of the experts to join the Project differed, but most saw it as an opportunity to expand their individual knowledge on RECP in general to e.g. take on board in their lecturing, but also to be able to have additional income from selling services to the enterprises in the future (especially the consultants who also today are living from selling services).

All experts, regardless of sector in which they should work in their training period, signed a contract with the Project (CRECI and CTB) on 25 working days involvement over a 6-months period³⁹, which also included some 10 days of training and joint compulsory industry visits. The experts get their direct costs remunerated, but they do not get paid for their working time, and consequently they mostly work with the Project in their spare time/evenings/ weekends, (except for the visits and contacts to the enterprises that are taking place during working hours). An interesting issue is that all the four groups of experts independently estimated their average time consumption to the magnitude of 45-50 working days, over period of around 9 months - 1 year! Some of the additional time needed seems to be due to the lack of/dubious data given by the enterprises in order for them to calculate mass balances, energy consumption, etc., and “endless” contacts (visits, phones, emails) with the enterprises.

Another factor contributing to the excessive time consumption is surely that this is the first time the experts are undertaking such assessments and naturally it requires some time to get acquainted with the processes and methodologies in RECP. Most of the assessors have no experience with working as “consultants”, with giving advice. Additionally, some of the experts were new to the sectors in which they were assigned to work on this first assignment (for example some of the experts assessing small rice mills had no knowledge of such sector from before, and only a few had very detailed knowledge of energy consumptions and mass balance calculations, being a key issue in the assessments). It is therefore anticipated that the next assessments will take shorter time, simply due to increased knowledge and experience with the experts.

None of the experts had so far submitted their *final* reports at the time of the Team’s field visit, although 10 *draft* reports had been submitted. All experts have however made some preliminary assessments (interim reports) of the “low hanging fruits” in the enterprises. The group of experts in Bandung believed that it would take another 6 months before *all* the final reports could be submitted, whereas the group in Batam would submit their reports in “the foreseeable future” (3 said they had almost completed the reports and 1 was “on the way”). Notably, some of the experts dealing with small private rice mills in East Java have already submitted their final reports to the project office in Bandung, but these are in English, and most rice farmers cannot read this language, and some are even illiterate, so the recommendation must be synthesised in Indonesian or otherwise relayed to them in a practical way. So far none have had final meetings with the beneficiaries.

Common for all the groups interviewed was that most of the experts believed that the industry could not/would not pay for their services in the future. Needless to say, someone *has* to pay for the services of the experts, and that would eventually be the enterprises. Without such willingness and ability to pay, the national experts will not act. Exception could be the experts in the Centre for Textile in Bandung (CTB), being permanently employed by CTB, and having as part of their job description to assist the center supporting the textile industry. The center is being financed 80% by the Government (MoI) with the rest coming from the industry, and the experts are getting an honorarium for acting as assessors.

³⁹ The Evaluation Team understands that this kind of contract is a “blueprint” from RECP activities under UNIDO in other countries.

The Evaluation Team believes that in order for the services of the national experts to be cost-effective and sustainable, they need more training in the RECP assessment techniques, but evidently also in communication skills (“soft skills”, also including “*analytical thinking, problem solving and advisory skills*”). If the experts can show good references from some industries (cost savings), it is the hope that more industries will seek their services, also in the hope that there will be more incentives to undertake RECP in the future. The experts should also form a national network, in order to exchange experiences and lessons learned, and such network must be run on their own initiative and by own forces, but could be instigated by UNIDO while the Project is running.

Latest: As seen below related to managerial issues, part of the NRECPI will probably comprise an “RECP Experts Pool”, that “*...brings together qualified RECP professionals for (peer) learning, knowledge sharing and collective action to promote RECP and improve access for business and government to RECP knowledge and services that are appropriate, effective and affordable to enterprises with different needs and capacities, from different sectors around Indonesia*”. This seems to be exactly the kind of forum also suggested by the Team.

The sustainability would also be enhanced by e.g. ICPC establishing a roster of the experts trained, also being able to broker contracts between enterprises in need of services and the experts⁴⁰. Surely, the focus should be on marketing the expert services in RECP to larger industries that are willing and able to pay for the services. As such, for example small family rice mills in East Java are not the main target group (unless services are paid for by a donor or the government).

Another aspect is which professionals should preferably be trained as national experts? So far, mainly people from academia/lecturers volunteered to take part in the Project. One reason for this could be that they actually have spare time in-between their lecturing and are interested to know more about RECP to bring into their teaching curriculum. This is all well, but people used to lecturing are not necessarily best at practical problem solving/advising, which are more the *modus operandi* of private consultants. May be the Project during the remaining project period should more actively look for taking consultants and people with process engineer experience and business management experience on board in order to expand the group of experts in the country.

2.4.4 Overall Sustainability

So far, the Team believes sustainability of the Project is seriously at risk in many respects, and so far there are of course no signs of developmental changes being effects from the activities, as this is too early. A lot more efforts have to be put into the industry sectors already approached in order to incentivize the enterprises more effectively towards RECP uptake. **The Evaluation Team therefore believes that the present strategy of going wide, to even additional industrial clusters and geographical areas (as planned), will not be very sustainable** considering the limited implementation time left as per the Amended Project Document. In order for the Project to secure some level of sustainability with the industries, the activities during the rest of the implementation period should go deeper into the sectors already started, to get a better anchorage and obtaining a most wanted rolling-out of the RECP tool also post-project. A “critical mass” of industries in one industry cluster being able to show good examples of the usefulness of RECP, is required to secure chances of a multiplying effect⁴¹.

The RECP methodology is just in its infancy of being mainstreamed into operationalization and implementation of relevant governmental policies and strategies, as mentioned earlier. The attempts of establishing a National RECP Network in Indonesia is just in its infancy, and according to the UNIDO Advocacy and Network Manager (sitting in ICPC) this is a comprehensive task. As mentioned in the PD the Indonesian RECP Coordination Committee should be the driving force in such establishment, and in fact evolve itself into such forum. This could in fact be developed into a voluntary arena where all interested parties could meet to discuss RECP, but it surely needs some sort of secretariat and leadership driving the thing. The Team would believe that ICPC could play a key role here, but surely there is a long way to go before such network forum is technical, institution and financial sustainable, most likely properly materializing *after* the Project is ended. The ambition in the Project could be at least to initiate such forum and strengthen a secretariat (see below section on Management).

⁴⁰ In fact, there is no overview easily accessible anywhere of the persons that have been trained in CP under previous programmes (e.g. funded by Norad, GtZ or EU Switch)

⁴¹ What is “critical mass” will of course depend on the sector, types of industry, locations, etc.

Notwithstanding the above, it is understood that the enforcement of law related to environmental pollution is very weak in Indonesia, and very few industrial culprits are penalized for polluting. There are too few environmental inspectors in the local environmental agencies and their legal and administrative mandates and resources are insufficient to cover all the enterprises, as they should, so the inspection visits are merely at random. It was also clear from the meeting with Batam BAPEDAL that they had more than enough on their hands with responding to public complaints on pollution, not being able to fulfill their obligations for regular 6-month monitoring/inspection visits to verify the contents of the report on discharges, emission and waste management submitted by the enterprises. Additionally, as clearly mentioned by several project-recruited project staff and national experts, polluting industries often are “paying off” the inspectors in order to avoid penalties and closures (*“penalties are negotiable”*). Such widespread corruption and lack of enforcement is, needless to say, not an incentive for doing something about pollution and resource use in industries. (One idea could in fact be for the Project to support the legal enforcement in a limited area as a pilot).

It is noted that, according to the Project Document the Project “...incorporates a networking strategy to build up simultaneously demand for and supply of RECP services”, and “incorporates a networking strategy to build up simultaneously demand for and supply of RECP services”. The PD further states: “A demand-driven and market-based approach for RECP implementation will be developed and applied”. Surely, building up a demand for RECP services is impossible for the Project alone, as long as the national enforcement of environmental law and regulation is weak. The Project is here surely promising more than it could possibly keep, although one of the components (Component 3 on Policy and Regulatory Framework) deals with such issues (not yet started, though).

Sustainability of RECP service provision will be achieved when there is an established demand for RECP services, which in turn concerns both company drivers (pertinence/urgency for RECP implementation as experienced by enterprises, e.g. through regulatory and market pressures) and quality of services. The demand for RECP might gradually increase due to increased prices of raw material and natural resources, but also due to the market demand for environmental performance raising (due to greater consumer awareness). It is assumed that the larger industries in Indonesia, being part of international industrial groups, have taken on board RECP already and are gradually greening their production to meet the pressure from institutional overseas buyers. It will take longer before national/local consumer demands for environmentally sound goods and services in Indonesia gain momentum like e.g. in Europe and USA. Also, the target industries in the Project are medium, small and micro size, mostly producing for the national and local market, so these might not feel the same pressure to produce environmentally friendly.

Today therefore, it thus seems that the most important incentive for industries to implement RECP measures is cost saving, as long as they are able to sell all their produced goods. The level of awareness of RECP and the potential such measures might bring is still low, according to the industries themselves and also the RECP assessors, much more awareness raising, training and showing of good lessons learned are required to make the project activities sustainable. This also surely goes for the mainstreaming of such measures in the various industrial sectors and sector associations.

The implementing partner institutions in the Project seem to have a varying degree of sustainability prospects. The CTB, being a “center of excellence” for textile industry, seem to have the best starting point for continued RECP service provisions post-project in that sector. ICPC, although not fully operational today (part time industrial and ministerial staff), at least has some future ideas of being a key RECP center both for industry and experts, with its plans of transforming into a foundation. CRECPI seems to have no views of securing sustainability and the core of the center today is UNIDO recruited project staff, and CADGIE will carry on with greening the industry, having RECP on board as one tool, but not driving the overall RECP process nationally. On the other hand, sustainability is not just about sustainability of institutions/organizations supported by the Project, with success measured in expanding and continued uptake of RECP methods, techniques and policies by enterprises, governments and other organizations (and environmental and economic benefits thereof). 20+ years’ experience in NCPCs around the world shows that in the context of scaling-up sustainable institutions can both be a blessing (where institutions are transparent, responsive, inclusive, etc. and manage to evolve and adapt) as well as a curse (where institutions operate as self-declared national centers of excellence without transparency).

One serious stumbling block for sustainability is however that the project activities to a large degree are depending on the proficiency of the enthusiastic and dedicated CTA. As per the time of the Evaluation,

there is no dedicated single person in the system to *directly* work with him and secure the continuity when the Project ends, but he merely is working with various national UNIDO staff seconded to the four implementing partners (and to some degree to permanent employees in the implementing partners). If the CTA suddenly should end his assignment, there is nobody to take over, as it observed that few of his responsibilities or tasks have been delegated to nationals so far. The Team appreciates that having been part of the planning as far back as 2009, having been the Project Manager and the Chief of the RECP Unit in UNIDO, and still being the key person in the institution pursuing RECP, the CTA is indeed an integral part for the Project with the best knowledge of all details from the start, and is in person taking part on most activities in person, which also includes a lot of travelling all over the country. The team got the firm impression that the CTA was working far more than what “normally” could be expected and takes on his shoulders many tasks that could have been delegated to his colleagues.

In order to secure sustainability it is indeed, as part of an exit strategy that has to be prepared without delay, necessary to appoint someone with the right background and dedication to work closely with the CTA and be a sort of national “RECP Coordinator/Deputy CTA⁴²”. Such person must be in an established system/institution, and with high degree of probability to continue there also post-project. Could such a person be found amongst the present part time officers working in ICPC? Could it e.g. be the Director of ICPC, as this institution has views on how to sustain the operations post-project and mainstreaming RECP as a key of the operations, and has views of keeping a database for national experts, brokering RECP assessment contracts with the enterprise, etc. It is believed that the “Deputy CTA” should come from the industry side as this is assumed to increase sustainability rather than the person coming from a ministry (where staff often change, are promoted or relocated). A person coming from industry also has much more legitimacy amongst his fellow colleagues. It is understood that the CTA works with several national staff and wants to build up more than one person. The Team appreciates this approach, and still maintains that one person should be appointed the “Deputy CTA”, as dispersing the responsibilities could lead to the momentum being weakened post-project. One main “hub person” is therefore assumed required.

2.5 Project Management, Monitoring and Networking

2.5.1 Project Management/Coordination

The planned and present main managerial set-up is briefly described in *Section 1.2.3*, with reference to *Figures 1.6 and 1.7 in Annex 6*. A couple of observations by the Evaluation Team could be highlighted:

- The common modality in UNIDO is to have the Project Manager sitting in Vienna, with the CTA being the technical advisor in the country (but also in the case of Indonesia having been delegated the day-to-day managerial responsibility). The PM has the final saying on budgetary and contractual issues for several projects (the one for the RECP Project has in total 8 project, spread all over the world). As such the Project Manager is not performing daily “hands-on” managerial functions of the project implementation, unlike the system in some other implementing institutions with their “Project Managers” being on site. This is understood to be because UNIDO is a fairly small organisation and could possibly not have one PM for each project.
- In the RECP Project the situation is special, as the CTA in Indonesia was the former PM in Vienna. Before he took up the positions as CTA (June 2015) very little happened in the Project, as he was PM also for other projects and had other tasks internally in UNIDO (heading the RECP Unit), and could only have time to shorter visits to Indonesia starting some few activities that a CTA should ideally have started. The long process of recruiting the CTA was may be the main reason for the delayed start of the project activities. However, it is fair also to say that the lack of managerial capacity in Vienna with a busy part-time PM was surely also a contributing factor to the activities not gaining proper momentum the first years of the Project (which of course was the reasons for recruiting a CTA to the Project in the first place!). With a CTA who is still a permanent UNIDO staff member, and has in depth knowledge of RECP in general as well as of the project design and contents (was key in the planning since 2009), it goes without saying that the CTA today “steers the ship”, while the present PM (coming on board when the previous one became CTA) is merely “*watching over his shoulders and if necessary making some corrections to assure the ship stays on course and make sure that internal*

⁴² Working titles only.

admin processes can be completed as soon as possible", to quote the CTA. The PM is very content with the situation as he can dedicate more of his time to other projects.

- The Project activities are to a large extent "driven" by recruited UNIDO project staff paid by the Project, running the services in the implementing institutions, and this is needless to say making the sustainability vulnerable. Apart from CTB; having its own coordinator appointed to follow the Project and taking part in the activities jointly with the UNIDO recruited Textile Specialist, the other institutions have no specific appointed staff to work closely with the seconded UNIDO staff, to mainstream the activities internally in the institutions and to continue the efforts post-project. This might indicate a lack of full partner institution commitment, and could be a sign of lack of proper ownership to the interventions. (The activities are mostly seen as a "project" amongst the stakeholders, and stakeholders seem indeed to be happy that some full time UNIDO project staff are carrying out the activities so they do not have to get involved). It is also understood that the 8 UNIDO project staff (all rather young, 2-3 clearly being "junior") recruited specifically for the Project, see their employment as one step in their professional career. They will most likely move on to greener pastures once the Project ends, unless the institutions into where they are seconded wants to take them on board as permanent staff, which today seems to be unlikely (at least no indications of such detected). Especially CRECPI is vulnerable, comprising entirely time-bound full-time UNIDO-recruited staff, with just minor support and input from ITB staff (Head and Dep. Head), and with no views of replacing this staff with own staff post-project. Part of the Exit Strategy must surely be to ensure that national permanent staff in the implementing partner institutions are working closely together with the UNIDO-recruited staff.
- The Indonesian RECP Coordination Committee is seemingly not functioning the way it was planned and indicated in the first Project Document (PD). It should (according to the PD) amongst others be *"advisory to PMC, specifically review and provide comments/recommendations to work plan, progress reports and substantive outputs (technical, policy, etc.)"*, comprising high-level officials (Director General level), and comprise 9-11 people. In addition it should be designed as a coordination mechanism to synergize with other RECP and/or related initiatives and to facilitate the emergence of a RECP network, keeping in mind that the aim for the network was *"to engage 25 stakeholder organizations in Indonesia in RECP promotion and implementation"*. This obviously seemed to be a good idea at the time the RECP project strategy was formulated, as at that time other main RECP related initiatives were getting underway (including SWITCH Asia, GIZ low carbon growth etc.). But by mid-2015 these projects were closing down, and as such the coordinating/ synergizing role for RCC did not exist so much (surely not properly described in the Amendment document). According to the project management the idea of establishing RCC are obviously not appreciated by key project stakeholders.
- The RCC has however had 3 preparatory meetings (6.12.2012, 22.10.2013 and 13.11.2015), with minutes written. In the last meeting there were 16 members in the RCC and according to the minutes, there are suggestions for inviting more institutions to participate (academia, NGOs, think tanks, etc.). As such, the Evaluation Team believes that it *could* have been a good idea to extend the forum with more stakeholders interested and concerned with RECP, and in fact such a broad RCC forum could form the core of the NRECPI. However, then the mandate of the RCC should be changed to no longer giving direct advice to the PMC, but more having an outward looking view to RECP in general in Indonesia, being a platform/discussion forum for all RECP-related activities. It is noted that the same people sitting in the preparatory RCC meetings are sitting in the PMC, illustrated in *Figure 2.4 in Annex 6* (people with yellow shading), and in general the minutes from the two types of meetings show that the topics discussed are largely the same. The same person is chairing both meetings. With the initial intention of RCC giving advice to the PMC, it is far from good practice to have the same person chairing both meetings, and having the same participants. In such cases the accountability is weak, and simply the rationale for establishing the RCC is somehow lost.
- According to the project management the RCC will not be established as initially intended, following the 3 introductory meetings, and in fact not established at all, as *"this has all become irrelevant for advancing towards the project outcome"*. Because, in the second and the third meetings the MoEF was asked with formally inviting membership, but nothing has happened since then. The last information is that the Project has *"progressed in alternative ways to build momentum for RECP network through regional and sector dialogues, and are on the verge of creating something like an alliance, pact or accord between stakeholder organizations (province and national governments, business membership organizations, academia and possibly others) that then each commit to promote and implement RECP"*

through their own activities and spheres of influence. ... If the Project can nurture such an alliance, that would dwarf the original tasks for the RCC. Indeed the signatories of such alliance would then coordinate and de facto become a force for RECP advocacy (=market development) much beyond what was aspired for with RCC".

- One of the intended functions of RCC was guiding the network development and synergies with other RECP related initiatives. The CTA informs that the RECP network is developing at the time of the Evaluation, *"regardless of the absence of the RCC, it has become a more organic process, resulting from expert consultation in Feb 2016 (during which a two-pronged networking initiative was first proposed) and further reconfirmed during sector and regional consultations over the year"*. The latest idea is to establish a two-pronged network model comprising: RECP Expert Pool, and RECP Forum. Primo November 2016 a workshop for forming an RECP Expert Pool will be held. The Evaluation Team makes a note of this development, and has no substantial comments to such establishment, rather than it seems like a viable route to walk. It is believed that the project partners, following the development in the RECP sector every day, knows the best how to go about with it. In any case the role of RCC as a high-level advisory to the PMC seems to be dead, which might as well be.
- As a general principle in development cooperation interventions, the Evaluation Team would advice against the donor being part of the management of a project, as this might clearly be a "mixing of roles". If things go wrong in the Project, the donor can easily be used as a "hostage", also to be "blamed" for failures, as they have taken part in the implementation decision-making. The donor should preferably "take a step back" and oversee the implementation from a certain distance. One way of doing this it to have annual meetings with the responsible implementing partner, where the annual report is reviewed and salient points from the last year's implementation are discussed, progress is commented upon, next year's work plan and budget (possibly re-allocations within budget) are approved, etc. In such meetings the donor could bring to the table their concerns and their recommendation on how to adjust the approach of a project, also bringing any changes in policy by the donor government to the attention of the parties. Such follow-up model is practiced amongst other by the Nordic development organisations (e.g. Norad), and it has worked fairly well through many years.

All in all, the Evaluation Team concludes that the field coordination by the CTA is effective, although being a very vulnerable set-up, as it hinges on one person only. Both the managerial, organisational and technical inputs to the Project come through this one person, who also takes most decisions regarding all aspects of the Project. It is also clear that the Project Manager in this project plays a lesser role than a "manager" normally would play in other implementation institutions, also having other projects in his portfolio and thus limited time to follow up or needing to follow up (being of course a normal UNIDO set-up where a CTA is employed).

2.5.2 Project M&E and Reporting

There is no specific Monitoring and Evaluation (M&E) manual prepared for the Project, and the Evaluation Team does not consider this required. The monitoring is following procedures and processes instigated by UNIDO in all its RECP projects/programmes, initially developed jointly with UNEP⁴³. Day-to-day monitoring of the progress is undertaken by the CTA, based on reports from the various national project staff recruited in the Project. Monitoring and evaluation of implementation of RECP practices and technologies in the enterprises, including investments made and benefits achieved (resource efficiency, environmental and social benefits, etc.), are using common RECP indicators for all pilot enterprises⁴⁴. The Ministry of Environment and Forestry has developed monitoring criteria and mechanism for CP implementation in companies, known as the PROPER Programme. PMC is overseeing the implementation of the Project, including the progress on the deliverables, and as such has the overall responsibility of the implementation.

Progress reporting in the Project is *good*. There are short tabular to-the-point monthly reports prepared, reporting on the 5 project components, listing the activities undertaken by the various implementing partners, in addition to the aggregated status of each component by the end of the month. The table also lists the outreach activities of the last month (trainings, awareness seminars, workshops, etc.), and is summarising the forthcoming events the following month. The Evaluation Team however questions

⁴³ Amongst others in "Joint UNIDO-UNEP RECP Programme for Developing and Transition Countries"

⁴⁴ Enterprise Level Resource Productivity and Pollution Intensity Indicators: a primer for small and medium enterprises, UNIDO and UNEP, 2010, <http://www.unido.org/index.php?id=1001348>

whether such monthly reporting is required and wonders who reads it. In any case, the monthly reporting obviously is the basis for the semi-annual reports, and it surely reduces the workload connected to that reporting to have the monthly record as basis.

The semi-annual reports are covering the period January-June and July-December. In addition to a fact sheet in the beginning and an executive summary, they list the results narratively under each output, also illustrated with figures where appropriate. The reports have separate sections on risks, institutional/organisational development and human resources, financial status, lessons learned and conclusions with presentation of the next step. This is assumed to be a standard UNIDO reporting format. In annexes are included a table showing the main project events, and progress against the logframe, listing all the detailed activities, summary financial report, and work plan for the next period presented in a Gantt chart.

2.5.3 Networking and Synergy

As described above the NRECPI is just in its infancy and not really established. The RECP Coordination Committee (RCC) was the first attempt to collect more stakeholders in a platform for later to establish the National RECP Indonesia (NRECPI), but the development if the RCC evidently stopped after three preparatory meetings. Now, attempts are on-going to establish a two-pronged network model, comprising RECP Expert Pool and RECP Forum, but this is just in the start-up stage. So far, therefore, there are no direct easily detectable synergies that have merged from this networking, rather than some stakeholders meeting around the same tables discussing the same issues. So far the UNIDO RECP Project is the glue and the driving force of establishing the network.

It seems that the attempt to form an RECP Expert Pool, answers the need for the national RECP experts to have an arena for discussing issues of common interest and exchange lessons learned, like they have in other countries (e.g. Vietnam). Notably, the UNIDO project staff working in each of the activity and industry clusters within the Project have started such communication between themselves through the "What's Up?"-group already. Likewise, it could be considered establishing special expert groups locally - like sub-networks (e.g. in Bandung related to textile industry, and in Yogyakarta related to tourism industry). In the future, may be ICPC could be the driving force in the network, most likely also hosting the roster of the national experts in their database (they are inviting for the first meeting in the RECP Expert Pool).

In general, the RECP project in Indonesia is only one amongst other RECP projects/programmes run by UNIDO and UNEP around the world, and as being part of the Global RECP Network (RECPNet). As the previous Chief of the UNIDO RECP Unit⁴⁵ in Vienna now is the CTA in charge, and still an important resource person in UNIDO for RECP, Eco-industrial Parks and Green Industry, he informed that he has been involved in promoting the Indonesian work in the region and supported the "*operationalization of regional approach under ASEAN economic integration, linked to policy*". (This work has according to himself taken 5-7% of his time). His involvement in the RECP Net is also evidenced from the listing of networking and outreach in *Table 3 in Annex 5*, also e.g. including contact with other international SCP events. It is thus obvious that the lessons learned from previous and other on-going interventions are taken on board the Project and vice versa.

The synergies with other UNIDO projects is foreseen and facilitated through the Country Programme for Indonesia. From the other 3 major on-going UNIDO projects in Indonesia two are especially relevant to RECP. The synergy with the SMARTFish project⁴⁶ has already been mentioned (joint training and awareness raising events, and at least one of the SMARTFish demo companies joined RECP demonstration in the seaweed sector). The other one is the Energy Efficiency Project funded by GEF, where some exchanges have taken place (the RECP Project provided a resource person for one of the RECP trainings, and some of the trained RECP national experts have received training from the GEF project). Synergies are also sought with the ILO-supported SCORE programme and the Tourism Destination Management Programme by Swisscontact⁴⁷. The CTA claims that there will be further cooperation.

⁴⁵ In fact named Industrial Resource Efficiency Unit from late 2014, being a merger between the CP Unit and Water Management Unit.

⁴⁶ Sustainable Market Access through Responsible Trading of Fish in Indonesia

⁴⁷ Wikipedia: "Swisscontact is the business-oriented independent foundation for international development cooperation. Represented in 33 countries with over 1,100 employees, Swisscontact promotes since 1959 economic, social and environmental development".

Apart from that the Team was informed that the RECP project supports some smaller and preparatory activities in other projects, e.g. Water Stewardship with Heineken, where RECP assisted with identification of stakeholders, experts and facilitators. The CTA is also assisting with follow-up of 3R (Recycle, Reuse and Reduce), as it came up as a topic in a stakeholder engagement workshop organized by UNIDO and HEINEKEN under the PPP for water stewardship that there are plans of aligning some RECP training into respective water catchment areas (where industry is located). Also, the CTA has contributed to a value chain workshop organised by Agro (tempeh⁴⁸ and soybean industry) and there is a possibility that environment and RECP might play a role if that materializes into a full project.

2.6 Crosscutting and Other Issues

2.6.1 Gender and Youth

The project does not have direct gender-related impacts on the welfare and wellbeing of women and youth. It is nonetheless noted that the Project's target sectors include those that are driven by female-dominated workforces. These sectors include garments manufacturing and, to a lesser extent, textiles production, tourism in general with the hotel industry in particular, fish processing and the operation of cooperatives and micro rural industries.

In recruiting its personnel, the Project interviewed as many female candidates as were available after ensuring that they fulfilled the basic requirements of education, experience and other criteria established for the respective advertised vacancy.

The project also initiates special efforts to involve young professionals in its activities as trainee/associate experts. This is a commendable departure from Indonesia's customary practice of entrusting "consultancy" type work/assignments to senior retirees. The enterprises on their part claimed, commendably enough, that the project UNIDO-recruited project staff were dedicated and knowledgeable, maintaining a good communication atmosphere.

The employed national UNIDO-recruited project staff are: National Programme Manager (male, 36); Associate Process Chemist (female, 26); Associate Process Engineer (female, 27); Advocacy and Network Manager (female, 34); Tourism and Policy Associate (male, 33); Environmental Policy Advisor (male, 39); Textile Specialist (male, 45); and Green Industry Advisor (male, 47). With regard to the RECP assessors/national experts network, there are 15 female assessors and 43 male assessors, making a total of 58 assessors so far.

2.6.2 Environment

The core of the Project is all about efficient use of natural resources and energy, and reduction of pollution and amounts of waste, combined with making the industrial production more cost effective in general. As such, the Project is indeed promoting environmental sustainability, both with the national experts/RECP assessors and other stakeholder staff trained (from ministries and participating institutions), but especially with the participating enterprises. The ambition is that following the roll-out of the RECP concept, several enterprises will be able to reap environmental benefits, ultimately benefitting the society at large in the (very) long run.

2.6.3 Market Distortion Issues

The issue of market distortion has so far not been on the agenda in the Project, as it has not been very relevant in the early stage of the Project. Market distortion in this case is interpreted to be giving preferences to one kind of enterprises, one specific industrial sector or one geographical location as compared to others.

The Project Document had already selected the industrial sector (clusters) to be included in the Project. As the planning of the Project was said to have been based on a wide consultation of stakeholders, also

⁴⁸ Wikipedia: "A traditional soy product originating from Indonesia. It is made by a natural culturing and controlled fermentation process that binds soybeans into a cake form. Tempeh is unique among major traditional soy foods in that it is the only one that did not originate from Greater Chinese cuisine".

the ministries and industry associations in Indonesia, it is believed that the selection was based on expressed needs of the stakeholders. However, as mentioned elsewhere, the Evaluation Team does not understand why so many sectors were chosen to be included in the Project. The strategy of UNIDO has been to “cast the net wide” and capture as many sectors as possible, small and medium enterprises alike, with a spread in geography. As commented upon in *Section 2.2.2*, the Team finds this strategy impractical and suggests sharpening the focus during the rest of the Project. Having said that, the Team does not see that the selection listed in the PD had a market distortion effect.

At the start-up of the project activities, a lot of industries were invited to take part in the first awareness raising seminars where the scope and contents of the Project were presented. The list of enterprises to be invited was prepared based on advice from the participating partners, the central and local offices of the relevant ministries and the industry associations. Following the introductory seminars it was up to the enterprises to voluntarily sign up for participation in the Project, mainly then volunteering to pilot enterprises for RECP assessments by the national experts to be trained. Notably, not as many enterprises as anticipated volunteered to participate, as the RECP concept was unknown, the management of the enterprises did not agree to participate or simply had no interest. The Evaluation Team believes this was an appropriate approach, as one indeed needs interested enterprises that will take an ownership in the activities in order to succeed and create good examples that could be shown to others later. Several enterprises got the chance to participate, but only some grabbed the chance. This was fair, transparent and appropriate related to the prevalent situation.

So far, the Project is not affecting the competitiveness of the enterprises, simply as the Project has not reached the stage where major improvements in the industries have taken place, and not even the final assessment reports have been submitted by the experts. So far also, no specific measures have been instigated to prevent market distortion, as this is not relevant for the time being. It is also clear that no enterprise has been directly monetarily subsidised by the Project, unless for receiving the services of the assessment experts for free, as such enterprises are the “Guinea pigs” of the Project. No equipment or other services have been given free of charge to the enterprises at this time.

It is also important to note that the enterprises will also have to “tolerate” the trial and errors of the assessor as these are their first enterprises to assist, so getting services for free at this stage is more than reasonable. Staff in the enterprises are also spending their own time for communicating and cooperating with the assessors during their visits and to follow up and answer questions later (data collection), being in-kind contributions.

2.6.4 Document Management

A large number of documents have been prepared in the Project and some of them have been reviewed by the Evaluation Team (see bibliography in *Annex 3*). In general, the documents produced in the Project are orderly and clear. Especially the semi-annual reports are well-structured and orderly, with headers and footers on each page telling which documents it is, who produced it, who financed it and when it was prepared. The documents are well illustrated to enhance the understanding of the text, which is commendable.

The Project has not established a separate electronic “UNIDO filing system” at project level. The CTA however informed that *“budget/contracting relevant documents are all uploaded in UNIDO SAP system and retrievable in that manner. Moreover as documents are shared by UNIDO official email, they are all by default backed up through the UNIDO email server”*. However, email attachments and files are not sorted, so they are not easily retrievable, as one needs to establish through UNIDO intranet connection with the email achieve and then search on time period, sender, receiver and topics. Other documents are routinely shared by official UNIDO email (xx@unido.org) and these, with attachments, are all backed up, archived, searchable and retrievable (however it is clear that *“retrieving takes an effort”*). Also Google-drives/drop boxes for file sharing are used for certain specific activities. CRECPI has established a shared server, in fact being a desktop computer with additional hard drive capacity used by the CRECPI team (i.e. not linked to ITB servers). It is the responsibility of the individual project team member to take own backups of the documents on regular basis, which is understood done in a non-structured and non-systematic way.

The system described seems to be a bit vulnerable, especially the haphazardly taking of back-ups. Ideally, all team members should be equipped with one portable hard disk each for continued backing-up of own

documents, and this hard disk should be kept separate from the PC (in case of theft, fire, etc.). With the team members spread out geographically the Project needs to establish a cloud-based storage possibility that all must use, drop-box or similar! A simple system with folders and sub-folders should be established, and the UNIDO-recruited project staff should be allowed access to the relevant joint files. However, also such systems are vulnerable as they to a large degree depending on the individual having enough discipline remembering to store the documents in the box, unless one team member is specifically dedicated to take on following this up. The human weaknesses are difficult to come by.

3. CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNED

3.1 Conclusions

The Project initially planned to start with a 6-month Inception Phase, followed by a Development and Implementation Phase of 30 months and a Scaling-up and Mainstreaming Phase of 24 months. However, due to significant problems of recruiting the resident CTA, and limited managerial capacity with the Project Manager sitting in Vienna, the Project was significantly delayed. The Project gained proper momentum mid-2015 (2.5 years after “project start-up”, being 3 years after “project launching”), meaning that even with the time extension till mid-2018, the *real* implementation period is only 3 years, 2 years short of the initial plan. The amended project contents were approved in May 2015, with even an additional sector included – textile, and the initial sectors retained. The scope was thus increased with the time of implementation period being significantly reduced.

The project strategy has been to scale up RECP measures by “going wide”, covering many industrial sectors in many geographical locations, and industries of different sizes. This is obviously posing some serious challenges related to managing the interventions efficiently, but mostly there is high risk of this approach not being sustainable as it only “scratches the surface” in the various industries and is not able to anchor the RECP concept properly. This was evidenced by the Evaluation Team during the fieldwork, as both the national experts being trained and the “pilot” industries participating obviously need more coaching, training and support in order to be self-sustainable. The Project still has plans to start activities in new geographical areas (e.g. Surabaya Industrial zone and Lake Toba) and new sectors (metal and chemical products, in addition to micro sectors (coffee and palm sugar, also being in new locations).

The Project concept is largely relevant as it complies with the national policies, plans and efforts of the Government. However, the project logframe is not prepared according the modalities that is widely accepted and required for describing the cause-effect of the Project elements. The terminology used is inconsistent and partly misunderstood, especially the use of the term “outcome”. A project normally has only *one* outcome, being the main reason for the project being implemented in the first place. In general also, the Project promises too much as it has formulated outputs that are clearly out of the control of the Project (related to policies and financing mechanisms). This has to be adjusted.

There are in reality two options for bringing the Project ashore in a good fashion:

- i) Request a 2-year extension of the Project, meaning 5 years implementation as initially planned (which again would require significantly more funding from the donor); or
- ii) Reduce the scope of the Project the last 1.5 years to a manageable level⁴⁹.

As there is no request on the table for a significant extension at the time of the Evaluation and as the Team believes that it is unrealistic that the donor will come up with substantially more funds at this stage, it is believed that the second option is the most realistic. Although the CTA believes that the target values could be reached in 1.5 years, the Team is convinced that this is not possible. (The Team also doubts whether even a 2-year extension could be enough to reach all the formulated target values for all the activities). With the limited time remaining for implementation, and the sustainability of the efforts seriously being at risk, the Evaluation Team strongly recommends to “sharpen” the project strategy. There are in theory of course several ways of doing this. One way could be to reduce the efforts of the project components not properly started yet, meaning especially Component 4 (Technology and Innovation) and Component 5 (Investment and Finance). The Team would however advice to include the first two outputs of Component 5 (mapping existing financing schemes, requested by some enterprises,

⁴⁹ At the time of the Evaluation there are 21 months left, but before the observations and recommendations from the Evaluation has been distributed, discussed and concluded by the partners and the donor, only 18 months will practically remain.

and outlining possible future schemes), but surely drop Output 5.3, as this is impossible to deliver in the first place (and should never have been listed).

The enforcement of RECP policy and regulations in the country is weak, amongst others due to lack of capacity with the local BAPEDALS. The system with “negotiable penalties” is of course detrimental to the rolling out of the RECP process. The project component dealing with these issues (Component 3 – Policy and Strategy) has hardly started and in general promises more than could be expected during the remaining period of the Project. Maybe the contents of this component could be sharpened and focussed on the most prevalent needed issues. The component could thus be downscaled, but it could be an idea to test out/support the local environmental agencies in one location with enforcement of the existing rules and regulations related to pollution from industry.

The Evaluation Team believes that the easiest and most effective strategy change at this point in time would be *not* to start with new industrial sectors and new geographical areas. The main efforts could instead be put into strengthening the sectors already started and scaling-up there, by involving more enterprises in these sectors and locations. For example, it would strengthen the sustainability if the number of enterprises in the industrial estates practicing RECP could reach a “critical mass” for the efforts to roll-out by “themselves” post-project. Good examples are required for new enterprises to come on board.

The Project is very much hinged on the international CTA, making it vulnerable if he should leave the Project, but also putting sustainability of the efforts started post-project at risk. The CTA, and the UNIDO-recruited national project staff in the Project (seconded to the various implementing partner institutions) will most likely leave when the Project ends, and it is therefore important to make sure that “someone” in these institutions work together with/understudies the UNIDO-recruited staff while they are there and who can continue the RECP momentum nationally post-project. Such dedicated counterparts in the project implementing partner institutions seem to be lacking at present, the textile sector (CTB) being an exception. There is indeed a need for bringing a “Deputy CTA”-like person on board without delay, preferably backed by commitments from the participating institutions/industry to continue the RECP activities. The CTA urges that he should build up several staff in various institutions, and this could be a viable way to go. However, one key coordinator for future RECP activities should be appointed in order to avoid the responsibilities being dispersed post-project.

Part of this strategy could also be to strengthen ICPC, as this institution could be one of the main driving forces of RECP in the future, through its anchorage in the private sector (Chamber of Commerce and Industry). ICPC could also be the host of the database/roster of the RECP assessors/national experts and a centre for brokering of contacts between the enterprises in need of RECP services and the national experts that could assist in such efforts. Establishing ICPC as a foundation seems to be big step in the right direction.

As in practical terms 1.5 years remain of the implementation period, it is important to prepare an Exit Strategy for the Project, in which measures to increase sustainability should be elaborated.

It is understood that the Indonesian RECP Coordination Committee (RCC) through preparatory meetings never evolved into a forum intended in the Project Document. The MoEF promised in the last meeting one year ago to “formulate the mandate” of the RCC, but nothing has happened. This is surely a shortcoming by the Government, as the RCC should be the driving force for establishing the national RECP network, and thus no such network has been established yet. There is however obvious a “felt need” amongst the stakeholders to establish a larger arena for all interested RECP parties. With the RCC not likely to be established, ICPC and the Project has taken the initiative to establish two-pronged network model comprising RECP Expert Pool and a RECP Forum and together forming the intended Network for RECP Indonesia (NRECPi). The Team believes this is a realistic attempt and a commendable development.

Another conclusion by the Team is that it seems the government institutions participating (read: ministries), have not taken the appropriate grips to ensuring sustainability of the Project. It seems that during the implementation so far, UNIDO and SECO have been the most prevailing voices in project management, especially to judge from the minutes of the PMC meetings, and from interviewing UNIDO-recruited project staff. It seems that the ministries have not yet started to prepare for taking a more proactive part in the management, enabling SECO to gradually reduce its hands-on managerial influence in the

PMC. Also the lack of dedicated Governmental staff to work closely with the CTA and the UNIDO-recruited national project staff, might indicate that the ministries are not having the right ownership to the Project, and may be construe it as being a “UNIDO project” and not an “Indonesian project”.

3.2 Recommendations

Based on the above considerations, the Evaluation Team recommends the following:

To UNIDO and the project implementation partners:

- ❖ The Project should not start activities in any new industrial sectors or geographical areas, but “go deeper” in the areas already started, as this will most likely increase the chances of sustainability in those sectors during the limited time remaining of the Project. (This means that chemical sector and micro sectors should not be started, and no activities should be started in Lake Toba (tourism) and in the industrial estate in Surabaya. Whether to stop the involvement in the metal sector must be carefully considered by the project management, as some awareness raising efforts have already been undertaken here and it could be detrimental to the RECP in general, and the Project in particular, to stop at this point). This change in strategy will also make the Project saving funds on the travel budget item (lower transaction costs), which is already fully spent at the time of the Evaluation.
- ❖ The Project logframe should be refined, with re-formulations of the Programme Objective and (principal) Outcome in accordance with normal RBM principles of logframe formulations and ambitious of the Project. Formulated outputs must be guaranteed by the project management, but the project outcome and objective are farther into the future, outside the control of the Project. Outputs must be obtainable and realistic.
- ❖ Whether the activities in Component 3 (Policy and Regulatory Framework) should be reduced must be considered by the project management as part of totality and needs to support the efforts in the other components. With the lack of legal enforcement of the polluting enterprises, one idea could be to assist the local authorities (BAPEDAL) strengthening such enforcement in a limited geographical area (e.g. in an industrial estate) or for a specific sector in a certain location.
- ❖ The Team believes that the two first outputs of Component 5 should continue as planned (with Output 5.2 only giving a broad outline of a future possible Financing Scheme for the industry). However, Output 5.3 must be dropped as that is outside the scope of the Project and should never have been there in the first place.
- ❖ The Project should actively support the efforts of the ICPC in establishing the institution as a foundation, enabling it to receive external funds and having income-generating activities. ICPC, being anchored with the private sector and the Ministry of Environment and Forestry could preferably be developed into one of the main future “hubs” for RECP in Indonesia, as it seems to have more potential for this than for example CRECPI, which is created to serve the Project and is almost entirely staffed by UNIDO-recruited national project staff, which is not considered to be a sustainable setup at present.
- ❖ An Exit Strategy should be prepared for the Project without delay. This should focus on securing sustainability and rollout of the activities post-project. Part of the Exit Strategy should include assigning national staff to work closely with the UNIDO-recruited project staff in the implementing partner institutions during the rest of the project period to secure the continuity of efforts.
- ❖ A “Deputy CTA”-like expert should be taken on board the Project to work closely with the international CTA. The person should preferably come from/be anchored in one of the implementing partner institution with a view to continue in this institution post-project. Such institution could preferably be ICPC. Having such main national expert does not exclude the CTA working with all the institutions anchoring the efforts in several places.
- ❖ The Project should endeavour to take on board and train more RECP assessors for the sector already started. Efforts should be made to recruit such from the private consulting sectors and/or amongst persons with process background.
- ❖ The RCC would obviously not be established as other solutions are sought outside a RCC (lead by the MoEF). This function should then be removed from project strategy (as initially presented in the PD), and instead the new approach with a two-pronged networking model (RECP Expert Pool and RECP Forum) should be taken on board.
- ❖ Preparation of written manuals for the RECP process should start without delay, as this is a felt need

amongst both enterprises and the national experts. Such manuals should be specific for the various industrial sectors, and as such be documents of reference for the RECP assessors in their future work.

To SECO specifically:

- ❖ The donor should not be involved with the management of the Project, although it is understood that this is common in most Swiss-funded projects around the world. The donor could in general be a hostage in a project that is not delivering as promised. In the case of RECP Indonesia, SECO is an active partner in the PMC, together with UNIDO only being “observer” in this committee, and should consider withdrawing entirely from the PMC to avoid mixing of roles, but may be more important to let the Indonesian Government (ministries) take a much more prevalent role in the management of the Project. This will most likely make the ministries take a more active part in planning for the sustainability of the Project.

To the Government specifically:

- ❖ The MoI and MoEF must take a much more pro-active role in the management of the Project now when only around 1.5 years remain of the project implementation period. Especially so if SECO would take a less prominent role in the PMC. Firm grips should be taken in securing sustainability of the interventions, by dedicating ministerial staff to take more active part in the activities. Especially the continuity of the CTA functions should be high on the agenda.

3.3 Lessons Learned

The following lessons learned could be mentioned:

- ❖ There are shortcomings in the logframe for the Project. Some cause-effect connections are lacking, the formulation of the outputs and outcomes does not reflect the expectations and responsibilities in the Project, a couple of outputs cannot possibly be delivered by the Project, and the indicators for the outputs and the outcomes are not according to “the book”, especially the method of verification is not properly described. In order for the indicators to be a useful tool in the monitoring of the project progress and as basis for reviews and evaluation of a project, they need to be SMART. Preparing specific, measurable, achievable, realistic and time-bound indicators is indeed challenging, and it requires a lot of practice to prepare such good ones. Staff experienced in preparing project logframes must therefore be involved in the design of projects and the QA of Project Documents before they are submitted to the donors.
- ❖ The experience of the Evaluation Team in general, through evaluating several development cooperation interventions in many developing countries, is that it is better to “go deep” than to “go wide”. It is thus not advised to spread the activities out to several sectors and geographical locations to reach scale, as just “scratching the surface” puts the sustainability of the efforts at risk. Proper anchorage of the efforts must take place in order to create the appropriate ownership with the national institutions to take on board and rollout activities also post-project.
- ❖ The Project is to a large degree depending on UNIDO-recruited project staff seconded to the implementing institutions leading the activities. It is however important that these institutions also appoint own staff to work closely together with the seconded UNIDO project staff from the start-up of the Project, in order to carry on and scale-up the activities post-project. Without such internal staff being involved, the sustainability of the efforts is at serious risk.
- ❖ It has proved useful to include representatives from the enterprises in the introductory training of RECP, together with the RECP assessors. Such representatives should come both from the operational staff and from the managerial staff (the latter being the most important). In this way, the understanding of the RECP processes becomes more profound amongst the enterprises and the need for RECP services becomes more evident.
- ❖ For short assignments, like “normal” evaluations/reviews with 1-2 experienced consultants in the team and fieldwork lasting only 10 days, it is an “overkill” to prepare an Inception Report prior to going into the field, as such time could better be spent on document reading and fieldwork preparations. For longer assignments with more than 2 persons in the team an Inception Report *could* be a useful tool for guiding the approach of the evaluation kick-off discussions prior to the fieldwork on key topics to concentrate on.

Annex 1 – Terms of Reference

TERMS OF REFERENCE FOR MID-TERM INDEPENDENT EVALUATION OF THE UNIDO PROJECT:

NATIONAL RESOURCE EFFICIENT AND CLEANER PRODUCTION (RECP) PROGRAMME INDONESIA SAP ID 100224

Time period: 2012-2016

August 2016

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BACKGROUND AND CONTEXT

BACKGROUND

Resource Efficient and Cleaner Production (RECP) concerns the application of preventive environmental management practices and total productivity techniques with the triple aims of improving the productive use of materials, water and energy (*'resource productivity'*), reducing the generation of waste, waste water and emissions (*'waste minimization'*) and reducing risks to humans (*'human well-being'*). RECP provides a cross sectoral approach for industries in all manufacturing and related sectors and of all sizes to reduce their environmental impact and improve productivity, ultimately contributing to enhanced competitiveness and conformance with market demands. The United Nations Industrial Development Organization (UNIDO) and United Nations Environment Programme (UNEP) have jointly promoted the application of RECP (and predecessor concepts) in developing and transition countries since 1995 in particular by supporting the establishment and operation of National Cleaner Production Centres (NCPCs) and related entities. Since 2009, this support is provided within the framework of the joint global UNIDO-UNEP RECP Programme, for which a mid-term evaluation was conducted in 2015. The 20 year results and experiences of the NCPCs have been documented in various publications.

RECP is strongly embedded in the international 2030 Agenda, in particular as contributor to the Sustainable Development Goals on sustainable consumption and production (SDG12), inclusive and sustainable industrialization (SDG9) and green economy and productive workforce (SDG8). At the regional level, RECP and related social and environmental responsible business conduct, have gained importance with the entering into force of the ASEAN Economic Community, as is also reflected in the ASEAN Socio Cultural Blueprint 2025, *"forging ahead together"*.

PROJECT CONTEXT

The Government of Indonesia launched its first Cleaner Production (CP) initiatives in the mid-1990s and has since then received international support (from GtZ/GiZ, JICA, AusAID, EC, USAID and others) for various CP and related projects, including the establishment of the Indonesia Cleaner Production Centre (ICPC). The development of CP in Indonesia though had until 2009 not connected to the global NCPC/RECP Programme of UNIDO and UNEP, a situation similar to other major ASEAN member states (Malaysia, Thailand and Philippines). At the request of the Government of Indonesia, through its then Ministry of Environment, in 2009, UNIDO assessed the status of CP development in Indonesia and on the basis thereof developed during 2009-2011 the present National RECP Programme (*'the Project'*). The Project was approved for implementation and funding by the Government of Switzerland, through its State Secretariat for Economic Affairs (SECO), and launched for implementation during project signing ceremony on 5th June 2012, World Environment Day, symbolically ahead of the 2012 World Summit on Sustainable Development, Rio+20.

Given that CP had already been piloted and demonstrated in Indonesia, the RECP project was designed to scale-up and mainstream RECP methods, techniques and policies in Indonesia, through a networked approach to reach different sectors and regions around the vast archipelago. The project is structured in five main outputs, in brief (with full details in annexed logical framework):

1. RECP Capacity and Network: building a cadre of RECP experts around the country and connecting these into a multi-stakeholder action network for RECP promotion and implementation;

2. RECP Implementation and Replication: undertaking RECP assessments in selected industrial sectors (food, textile, metal products, chemical products and tourism), industrial regions (Makassar, Batam and E Java) and micro-enterprises, and facilitating and achieving the replication of good practices and methods within respective sectors and regions;
3. RECP Policy and Strategy: fostering the uptake of RECP by industries through strengthening of the policy framework and its implementation, within each of the core partner ministries, respectively: Ministry of Environment and Forestry (MoEF); Ministry of Industry (MoI); Ministry of Tourism (MoT) and Ministry of Energy and Mineral Resources (MoEMR).
4. RECP Technology and Innovation: supporting adaptation and adoption of innovative RECP technologies, in particular through the application of industrial symbiosis, green chemistry and engineering and cradle-to-cradle approaches in the target sectors; and
5. RECP Financing and Investment: promoting RECP investments through liaison with financial sector, including, where appropriate, development of proposals for new financial instruments catered to RECP implementation.

The Project is implemented by UNIDO, in close cooperation with four national implementing partners, respectively: Indonesia Cleaner Production Centre (ICPC); Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI), Centre for Assessment and Development of Green Industry and Environment (CADGIE) and Centre for Textiles in Bandung (CTB). The preliminary list of counterparts, beneficiaries and stakeholders are provided in Annex 6.

CURRENT STATUS OF IMPLEMENTATION

During 2013 it had become clear that within the existing log frame and intervention logic of the Project, it was necessary to modify project activities, enhance performance indicators, planning and in-country organization and coordination. This was necessary in light of (1) changes in government policy (on Green Industry (GI) and Sustainable Consumption and Production (SCP)) and associated institutional arrangements; and (2) complementary interests and requests from both donor and recipient governments (including on Cradle to Cradle (C2C) and RECP monitoring and assessment tools). UNIDO therefore developed an amendment to reflect changes and confirm revised schedule of activities, performance indicators, planning and role distribution. The amendment was finalized and approved (by the Project Management Committee) in May 2015, by which time a start had also been made with training of national experts and preparation for demonstration projects. Thereafter, UNIDO dispatched on 22nd June 2015 its Chief Technical Advisor for the programme.

The period until June 2015 therefore de factor served as an extended inception phase, whereafter it was foreseen that the project could move into an accelerated implementation mode for a 3 year period, with planned completion by 30 June 2018.

During the first year of accelerated implementation, emphasis has been placed on training of national experts, industry and government outreach and consultation (under output 1), in plant assessments in food, textile and tourism sectors and Makassar and Batam regions (under output 2) and providing policy support, in the main to MoI (in area of GI) and MoEF (in area of SCP). By the end of June 2016, amongst others following activities had been completed:

- 63 national experts completed theoretical part of the RECP assessors training and were working towards completion of the practical part;
- 8 industry awareness and 6 industry consultation workshops were organized;
- RECP assessments were started in 71 demonstration enterprises;
- Inputs were provided to the development and promotion of various Green Industry Policy initiatives, including the Green Industry Award, Green Industry Certification,

Green Industry Auditor Training and Green Industry promotional campaigns and policy training.

Moreover, joint RECP training was developed and delivered in cooperation with two related Swiss funded projects in Indonesia, respectively the SMART Fish programme (Sustainable Market Access and Responsible Trading), implemented by UNIDO, and SCORE Programme (Sustaining Competitive and Responsible Enterprises), implemented by the International Labour Organization (ILO).

WAY FORWARD

The Project is working towards the formalization and official launch of the Indonesian RECP network by the end of 2016, along with the development and publication of related management, technical and training materials and resources. In parallel the technical work with enterprises is to expand to remaining sectors (metal and chemical products and micro-industries) and regions (E Java) and transition from demonstration mode to replication mode in the sectors and regions that have started. The policy support is foreseen to be increasingly focused on positioning RECP as a practical means for achieving the aims and objectives of already initiated government policy, in particular in the environment, industry, tourism and energy and resources policy domains.

The relatively smaller outputs 4 (RECP Technology and Innovation) and 5 (RECP Financing and Investment) are still to gather momentum and further scope during the second half of 2016, including through technical training, sector-focused innovation workshops and financial sector roundtable.

BUDGET INFORMATION

Grant No.	Total Allotment	Total Expenditure	% Implementation	Donor
200001268	CHF 4,064,136 U\$ 3,401,135.64	U\$ 1,153,297.45	33.9	SECO
200001121	CHF 180,800	0	0	SECO

PURPOSE OF THE MID-TERM EVALUATION

The purpose of this independent mid-term evaluation is to assess the relevance, design, effectiveness, efficiency and likelihood of sustainability of the project and provide recommendations for the implementation of the remaining project activities, which are expected to be implemented until the 30 June 2018.

The evaluation will also consider, to the extent meaningful, other standing evaluation criteria singled out in UNIDO's evaluation policy, such as impact, as well as management, gender mainstreaming, environmental sustainability, alignment with the UNIDO's Inclusive and Sustainable Industrial Development (ISID) agenda, and potential to promote ISID.

The evaluation will be thus a forward-looking exercise and seek to identify the best practices and areas for improvement in order to draw lessons that can be used in the implementation of the second half of this project and for similar projects to be implemented by UNIDO in other countries and the region.

Short-term and mid-term interest is that the current mid-term evaluation will inform the implementation of the outstanding project activities and substantial recommendations and lessons learned that will enable sustainable and effective accommodation of increased demand for Resource Efficient and Cleaner Production services in Indonesia. Therefore, the recommendations of this mid-term evaluation should be available in time to be taken into account for the implementation of the second half of this project and to adjust the project design if deemed necessary in order to ensure that after the end of the project implementation period advisory services for RECP can be provided by the RECP network in a sustainable way.

The mid-term evaluation aims to produce:

- Short-term recommendations for the implementation during the second half of this project ;
- Strategic recommendations whether and how project design can be strengthened in order to ensure that after the end of the project implementation period advisory services for RECP can be provided by the RECP network in a sustainable way;
- Unforeseen substantive gaps arisen during implementation that would need to be addressed, and how, if any;
- Lessons learnt so far.

The mid-term evaluation will assess the achievement of results and the suitability of the project design, as stated in the project document and the contributors to success or lack thereof. Moreover, the evaluation will assess the interventions design, level of national ownership, relevance to various stakeholders and the exploration of synergies with other UNIDO projects and with initiatives of the Government. It will follow a consultative process and seek inputs from a broad range of stakeholders, including policy makers and enterprises using the system.

The mid-term Evaluation will be undertaken as per UNIDO Evaluation Policy, the Guidelines for Technical Cooperation Programmes and Projects and the project document. The Project Manager, in collaboration with the UNIDO Independent Evaluation Division (IEV) will commission the independent evaluation.

SCOPE OF THE EVALUATION

The mid-term project evaluation will cover the project implementation period from 2012 till the mid of 2016 covering all the activities that are part of the project, with particular focus on the leading indicators signalling:

- uptake of RECP practices and techniques by target enterprises;
- acceptance and recognition of the relevance and benefits of RECP by government and business organizations;
- commitment and ability of RECP stakeholders to work together on RECP promotion and implementation; and
- institutionalization of RECP service provision within the key national implementation partners.

In identifying early indications of project impact, the mid-term evaluation is expected to:

- Consider all the activities that are part of the project;
- Cover the entire results chain from inputs and activities to impact and sustainability and review processes as well as results;
- Produce recommendations for the implementation of activities foreseen for the second half of the project implementation period and for eventually required adjustments in the

project implementation design in order to achieve the mid-term goal of having a sustainable RECP network in place in Indonesia (e.g. what has worked and what has not and what are the lessons from implementation to date, which issues need to be addressed in the next phase and what conditions should be in place);

- Have a national coverage, but with field visits to up to specific locations, to be identified by the evaluation team in consultation with the project team.

EVALUATION ISSUES AND KEY EVALUATION QUESTIONS

Timing issue: There is a time lag between awareness creation, industry consultation, diagnosis of current practice, capacity building and uptake of RECP practices and technologies, upgrading and modernization by beneficiary enterprises. Therefore, it is important to take the time lapse since the actual launch of project implementation into due consideration in order to have a correct estimation of the effectiveness of the technical assistance provided.

The evaluation consultant(s) will be expected to take this time lapse into due consideration when assessing impact in terms of RECP technologies and practices adopted by beneficiary companies and will have to focus his/her attention on the assessment of whether the project implementation design will achieve a significant uptake of RECP technologies and practices by beneficiary companies and whether the project implementation design will achieve in establishing a sustainable RECP network of Indonesian institutions, which will be able to provide advisory and advocacy services to industries beyond the project implementation period. The evaluation team is expected to consider the views and involvement of all relevant RECP counterparts, beneficiaries and stakeholders. (A preliminary list is provided in Annex 6, which is expected to be completed, confirmed by the Independent Mid-term Evaluation Inception Report).

Given the distinct scale and ambition of the Project, the Mid Term Evaluation is specifically tasked to validate the programme strategy and its early achievements, in particular with regard to:

1. Scale: does the project succeed in supporting larger groups of enterprises with the implementation of RECP practices and techniques?
2. Mainstreaming: is the project on track to contribute to the inclusion of RECP in the operationalization and implementation of relevant government policies and strategies, and thereby incentivize enterprises more effectively towards RECP uptake; and are the RECP implementation partners progressing to strategically embed and institutionalize their function as a RECP services provider?;
3. Customization: does the project succeed to develop and promote RECP methods, tools and practices in manners that are customized to the different target enterprise segments of the programme;
4. Innovation: is there evidence for early success in the development and implementation of innovative RECP technologies, methods and policies through the project?; and
5. Networking: are synergies starting to emerge between the activities of different RECP stakeholders, within the context of the project's specific activities as well as possibly elsewhere?

The following issues and questions are expected to be included in the assessment:

Ownership and relevance

The extent to which:

- The project objectives, outcomes and outputs are relevant to the different target groups of the intervention;
- The counterpart(s) has (have) been appropriately involved and consulted and were participating in the identification of their critical problem areas and in the development of technical cooperation strategies and are actively supporting the implementation of the project approach;
- The outputs as formulated in the project document are relevant and sufficient to achieve the expected outcomes and objectives;
- To what extent have the different network institutions taken ownership of the project;
- The project is relevant to the UNDAF objectives and ISID agenda.

Efficiency of implementation

The extent to which:

- The project has the necessary, efficient and adequate resources in place for an efficient implementation of the activities in the different sectors;
- UNIDO and counterpart inputs are being provided as planned and have been adequate to meet requirements.
- The quality of UNIDO inputs and services (expertise, training, methodologies, etc.) are provided as planned and has led to the production of outputs, and are cost-efficient
- UNIDO procurement services are provided as planned and have been adequate in terms of timing, value, process issues, responsibilities, etc.
- The projects collaborate with other relevant donors' activities and whether such collaborations are used for greatest synergies.

Project coordination and management

The extent to which:

- The national management and overall field coordination mechanisms of the project have been efficient and effective;
- The UNIDO management, coordination, quality control and technical inputs have been efficient and effective;
- The management, monitoring (logframe) and steering mechanisms are effectively used for the efficient implementation of activities in the different sectors;
- Monitoring is being carried out, based on indicators for outputs, outcomes and objectives and using that information for project steering and adaptive management;
- Changes in planning documents during implementation have been approved and documented;
- Synergy benefits can be found in relation to other UNIDO activities in the country or elsewhere.

Effectiveness

The extent to which:

- Activities (e.g. training, expertise, demo enterprise, etc.) are effective in addressing the needs of the beneficiaries in the different sectors;

- Main achievement(s) can be attributed to the project;
- Any stakeholder critical to be involved, but missing from the project;
- Outputs have been produced and how the target beneficiaries use the outputs;
- Outcomes have been or are likely to be achieved through utilization of outputs;
- Programme objective can be achieved;
- The project/programme contributes to inclusive and sustainable industrial development.

Impact and sustainability

- To what extent have the different network institutions' capacities strengthened so that sustained results can be expected;
- To what extent have the different network institutions started to develop a 'coordination mechanism' which can once substitute the functions currently executed by the Chief Technical Advisor (CTA).
- To what extent developmental changes (economic, environmental, social, inclusiveness) have occurred or are likely to occur as a result of the intervention and are these sustainable;
- Does the project have a multiplying effect;
- Has sustainability been correctly factored in the project strategy (risks analyzed and assumptions identified at design stage and appropriately monitored during implementation);
- What is the prospect for technical, organizational and financial sustainability of an Indonesian RECP network.

The following gender mainstreaming and environment related questions shall be also covered by the evaluation.

Gender and youth

- To what extent have women and youth benefit from the project/can be expected to benefit?
- Has gender been mainstreamed in the implementation of the project?
- Have gender analyses been included in baseline studies, monitoring and reporting?
- Has there been gender balance in the contracting of experts and consultants?

Environment

- Has the project promoted environmental sustainability?
- Are any positive environmental benefits likely, even if they may be indirect?

EVALUATION TEAM COMPOSITION

The evaluation will be conducted by one international lead evaluation consultant and one national consultant or junior international consultant who will be working under the guidance of the UNIDO Evaluation Manager in IEV in coordination with the Project Manager and with the project team in Indonesia and in Vienna.

EVALUATION APPROACH AND METHODOLOGY

This mid-term evaluation will be carried out in accordance with UNIDO Evaluation Policy and the Guidelines for the Technical Cooperation Programme and Project Cycle. While maintaining

independence, the mid-term evaluation will adopt a participatory approach and will seek the views and feedback of all parties. The lead evaluation consultant will liaise with the Project Manager on the conduct of the mid-term evaluation and methodological issues.

The lead evaluation consultant will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources (including literature reviews, field visits, surveys and interviews with counterparts, beneficiaries, donor representatives and program managers). The lead evaluation consultant will develop interview guidelines.

The mid-term evaluation will apply the standard for assessing the relevance of criteria of effectiveness, efficiency, impact and sustainability of programs to assess achievements against objectives and indicators outlined in the Logical Framework.

The methodology will be based on the following:

- Desk review of project document including, but not limited to:
 - (a) project / programme policy documents;
 - (b) The original project document, monitoring reports (such as progress and financial reports, output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence;
 - (c) Notes from the meetings of committees involved in the project (e.g. approval and steering committees);
 - (d) Other project-related material produced by the project.
- Interviews with project management and technical support including staff and management at UNIDO HQ and in the field and – if necessary - staff associated with the project's financial administration and procurement.
- Interviews with project partners including Government counterparts, companies, and partners that have been selected for co-financing as shown in the corresponding sections of the project documents.
- Interviews and direct observations with intended users and beneficiaries for the project outputs and other stakeholders involved with this project. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organizations.
- Interviews with the UNIDO's project management and Project Steering Committee (PSC) members and the various national and sub-regional authorities dealing with project activities as necessary.
- Other interviews, surveys or document reviews as deemed necessary by the lead evaluator and/or UNIDO EVA.

TIME SCHEDULE AND DELIVERABLES

The Mid-Term Independent Evaluation is scheduled to take place in third quarter of 2016.

This section contains a timetable for the evaluation process with tentative deadlines for key events, tasks, deliverables and milestones. The schedule is based on foreseen project timeline and will be adjusted according to encountered delays.

Task	Description/ Deliverables	Timeframe
Contract signed with evaluators		<u>September 2016</u>
Desk review and development of interview guidelines	Background materials provided by Project Manager and CTA	<u>September 2016</u>
Delivery of draft inception report. The report to contain work plan, key findings of desk review, methodology, sampling technique, and evaluation tools such as questionnaires and interview guidelines.	Inception report	<u>September 2016</u>
Briefing of evaluators at HQ and deskwork and interviews at HQ		<u>September 2016</u>
Mid-term evaluation mission (briefing of evaluators in the field, possible testing of evaluation tools, field visits, field research, interviews, observation, questionnaires, etc.)	Mission report and information collected	<u>October 2016</u>
Presentation of preliminary findings	Presentation in English to Project Manager and project team	<u>October 2016</u>
Additional data collection and analyses of information collected, preparation of the draft evaluation report and circulation, within UNIDO for comments	Draft report	<u>October 2016</u>
Incorporation of comments and preparation of final draft report	Final draft report	<u>October 2016</u>
Sharing of draft report with main stakeholders. Collection of comments and finalization of report	Final report	<u>November 2016</u>
Presentation and submission to UNIDO, Government of Indonesia and donor	Final Report and Management Response Sheet	<u>November 2016</u>

QUALITY ASSURANCE

The Project Manager (PM) will be responsible for managing the mid-term evaluation, preparing the terms of reference (TOR) and the job description (JD) of the evaluation consultant(s) on the basis of guidance of UNIDO's Independent Evaluation Division (IEV). The PM will forward drafts and final reports to IEV for review, distribute drafts and final reports to stakeholders (upon review by IEV), and organize presentations of preliminary evaluation findings which serve to generate feedback on and discussion of evaluation findings and recommendations at UNIDO HQ.

ANNEXES

- Job Description for team member(s)
- TOC for the Evaluation Report
- Checklist on evaluation report quality
- Theme-specific evaluation questions
- Project log-frame
- Preliminary list of Counterparts, Beneficiaries and Stakeholders

Annex 1. Job Description for team member(s)



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	Lead evaluator
Main Duty Station and Location:	Home based
Mission/s to:	Jakarta, Bandung, Vienna
Start of Contract (EOD):	September 2016
End of Contract (COB):	November 2016
Number of Working Days:	23/25 days

ORGANIZATIONAL CONTEXT

The consultant will evaluate the projects according to the Terms of Reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Office for Independent Evaluation.

PROJECT CONTEXT

As described in the MTE ToR.

MAIN DUTIES

The Lead Evaluator is expected to conduct the following duties:

Main Duties	Concrete/ measurable Outputs to be achieved	Expected duration (days)	Location
Conduct desk study of project document and relevant reports	Interview and mission plan completed and validated by UNIDO	4	Home based
Prepare an interview and mission plan			
Delivery of draft inception report. The report to contain work plan, key findings of desk review, methodology, sampling technique, and evaluation tools such as questionnaires and interview guidelines.	Inception report		
Visit UNIDO HQ for preparatory meetings (briefing); discuss inception report and finalize mission plan and appointments and ensure logistical support in place		2	Vienna, Austria
Undertake field mission to Indonesia to interview the main stakeholders, including beneficiaries and train the national consultant on interview techniques (briefing of evaluators in the field, possible testing of evaluation tools, field visits, field research, interviews, observation, questionnaires, etc.) presentation of preliminary findings to field stakeholders	Mission report and information collected	7	Jakarta, Bandung (Indonesia)
Detailed analysis of field results	Preliminary findings	2	Home based
Conduct additional phone interviews/stakeholders	Notes on		

Main Duties	Concrete/ measurable Outputs to be achieved	Expected duration (days)	Location
	interviews		
Debriefing of the evaluation (Presentation of preliminary findings)	Presentation in English to Project Manager and project team	2	Vienna, Austria
Preparation of first draft evaluation report and submission for UNIDO feedback	Draft report	3	Home based
Additional data collection and analyses of information collected, preparation of the draft evaluation report and circulation, within UNIDO for comments			
Finalization of report upon receipt of stakeholders' feedback	Final report	3	

REQUIRED COMPETENCIES

- Long-term experience in project evaluation
- Experience from working with RECP training from an industry perspective
- Experience from working with organizational development, capacity and institutional building
- Knowledge of international institutions/organizations working on RECP
- Work experience in Indonesia or the South East Asian Region

MINIMUM ORGANIZATIONAL REQUIREMENTS

- Advanced university degree in social science related disciplines including development studies, development economics, political science, international relations, and peace studies, with training in social research methodologies;
- Minimum 10 years of professional experience in project evaluation;
- Proven track record in evaluation of UN projects.

Languages: Fluency in written and spoken English is required. Working knowledge of Bahasa Indonesia is an advantage.

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 for this evaluation.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	National Evaluation Consultant
Main Duty Station and Location:	Home-based
Mission/s to:	Jakarta, Bandung and travel to potential sites
Start of Contract (EOD):	September 2016
End of Contract (COB):	November 2016
Number of Working Days:	20/22

ORGANIZATIONAL CONTEXT

The consultant will be part of the evaluation team, led by the International Evaluation consultant, to evaluate the project according to the Terms of Reference. S/he will work in close cooperation with the Lead Evaluator and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Office for Independent Evaluation.

PROJECT CONTEXT

As described in the MTE ToR.

Under the leadership of the Team Leader (International Evaluation Consultant).. S/he will perform the following tasks:

MAIN DUTIES	Concrete/ measurable Outputs to be achieved	Expected duration	Location
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data...); in cooperation with Team Leader: determine key data to collect in the field and prepare key instruments (questionnaires, logic models...) to collect these data through interviews and/or surveys during and prior to the field missions Assess the adequacy of legislative and regulatory framework in Indonesia	List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions Brief assessment of the adequacy of the country's legislative and regulatory framework	3 days	Home-based
Briefing with the evaluation team leader, UNIDO project managers and other key stakeholders Assist in setting up the evaluation mission agenda, coordinating meetings and site visits	Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions	3 days	Home-based (telephone interviews)

Assist the Team Leader in the Preparation of the Inception Report	Inception Report		
Conduct field mission	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission. Agreement with the International Consultant and Team Leader on the structure and content of the evaluation report and the distribution of writing tasks	6 days	Indonesia
Prepare inputs to the evaluation report according to TOR and as agreed with Team Leader	Draft evaluation report	6 days	Home-based
Revise the draft project evaluation reports based on comments from UNIDO Office for Independent Evaluation and stakeholders and edit the language and form of the final version according to UNIDO standards	Final evaluation report	2 days	Home-based
Total		20 days	

REQUIRED COMPETENCIES

Core values:

1. Integrity
2. Professionalism
3. Respect for diversity

Core competencies:

1. Results orientation and accountability
2. Planning and organizing
3. Communication and trust
4. Team orientation
5. Client orientation
6. Organizational development and innovation

Managerial competencies (as applicable):

1. Strategy and direction
2. Managing people and performance
3. Judgement and decision making
4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced university degree in science, engineering or other relevant discipline like developmental studies or business administration.

Technical and Functional Experience:

A minimum of five years professional experience, including evaluation experience at the international level involving technical cooperation in developing countries. Exposure to the needs, conditions and problems in developing countries. Familiarity with the institutional context of the project is desirable.

Languages: Fluency in written and spoken English and Bahasa Indonesia is required.

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 for this evaluation.

Annex 2: TOC for the Evaluation Report

Table of Contents

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Countries and project background

- Brief countries context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project and important developments during the project implementation period
- Project summary:
 - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
 - Brief description including history and previous cooperation
 - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
 - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
 - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR. Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

- A. Relevance (Report on the relevance of project towards countries and beneficiaries)
- B. Effectiveness (The extent to which the development intervention's objectives and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)
- C. Sustainability of Project Outcomes (Report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)
- D. Project coordination and management (Report project management conditions and achievements, and partner countries commitment)

IV. Conclusions, Recommendations and Lessons Learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or Counterpart Organizations
- Donor

C. Lessons Learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson the context from which they are derived should be briefly stated

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Annex 3: Checklist on evaluation report quality

Report quality criteria	UNIDO Evaluation Group Assessment notes Rating	Rating
Report Structure and quality of writing		
The report is written in clear language, correct grammar and use of evaluation terminology. The report is logically structured with clarity and coherence. It contains a concise executive summary and all other necessary elements as per TOR.		
Evaluation objective, scope and methodology		
<p>The evaluation objective is explained and the scope defined.</p> <p>The methods employed are explained and appropriate for answering the evaluation questions.</p> <p>The evaluation report gives a complete description of stakeholder's consultation process in the evaluation.</p> <p>The report describes the data sources and collection methods and their limitations.</p> <p>The evaluation report delivered in a timely manner so that the evaluation objective (e.g. important deadlines for presentations) was not affected.</p>		
Evaluation object		
<p>The logic model and/or the expected results chain (inputs, outputs and outcomes) of the object is clearly described.</p> <p>The key social, political, economic, demographic, and institutional factors that have a direct bearing on the object are described.</p> <p>The key stakeholders involved in the object implementation, including the implementing agency(s) and partners, other key stakeholders and their roles are described.</p> <p>The report identifies the implementation status of the object, including its phase of implementation and any significant</p>		

changes (e.g. plans, strategies, logical frameworks) that have occurred over time and explains the implications of those changes for the evaluation.		
Findings and conclusions		
<p>The report is consistent and the evidence is complete (covering all aspects defined in the TOR) and convincing.</p> <p>The report presents an assessment of relevant outcomes and achievement of project objectives.</p> <p>The report presents an assessment of relevant external factors (assumptions, risks, impact drivers) and how they influenced the evaluation object and the achievement of results.</p> <p>The report presents a sound assessment of sustainability of outcomes or it explains why this is not (yet) possible.</p> <p>The report analyses the budget and actual project costs.</p> <p>Findings respond directly to the evaluation criteria and questions detailed in the scope and objectives section of the report and are based on evidence derived from data collection and analysis methods described in the methodology section of the report.</p> <p>Reasons for accomplishments and failures, especially continuing constraints, are identified as much as possible.</p> <p>Conclusions are well substantiated by the evidence presented and are logically connected to evaluation findings.</p> <p>Relevant cross-cutting issues, such as gender, human rights, environment are appropriately covered</p>		
Recommendations and lessons learned		
<p>The lessons and recommendations are based on the findings and conclusions presented in the report.</p> <p>The recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?').</p> <p>Recommendations are implementable and take resource implications into account.</p>		

Lessons are readily applicable in other contexts and suggest prescriptive action.		
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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: Theme-specific evaluation questions

Resource Efficient and Cleaner Production

- How have previous ('pre-project') in-country experiences with promotion and implementation of RECP and related methods and policies been considered in formulation of the project strategy? How are these experiences and learnings considered and adopted in the ongoing project implementation?
- How have (and are) international experiences and lessons learned in implementation of RECP and related concepts been considered and adopted in project implementation? Including in particular from global RECP programme (both SECO and non-SECO funded RECP projects) and regional Sustainable Consumption and Production programmes.
- How is RECP being promoted to enterprises, governments and other stakeholders? Are the modalities adequate with regard to: raising awareness of RECP benefits; improving understanding of RECP methods; and/or actual implementation of RECP options?
- Did the project manage to strike a reasonable balance between work at micro level (enterprises), meso-level (sectors, regions etc.) and national levels?
- Have private sector institutions/associations been involved in the project design and implementation? If yes, in what way? If no, should they have been?
- Has the issue of possible market distortions been considered:
 - Have beneficiary companies been selected based on transparent, fair and appropriate criteria?
 - Is the project affecting the competitiveness of existing enterprises? Have any measures been introduced to prevent market distortion?
 - To what extent have private companies been subsidized by the project?
 - Are companies paying for services rendered or equipment obtained?
- If the project has worked with a limited number of selected companies, what strategies have been designed to replicate and scale up project benefits to larger groups of enterprises? Are these strategies adequate? Do these reflect best practice and are these supported by local counterparts?
- Have linkages to financial institutions been established? If yes, what were the results? If no, was there a need for this?
- Can enterprise effects be expected to lead to socio-economic impact such as employment or income generation, improved worker and community health, gender equality and poverty reduction?
- Does an M&E system exist, including baseline information, to allow for measurement of results and impact?
- Have synergies with other UNIDO branches/services been exploited, in particular TCB, Environment, Agri-business development and Energy? Would there have been a case to establish such linkages?

ANNEX 5. Logical Framework

Narrative Summary	Indicators	Means of Verification	Assumptions
Objective	Aspects:		
<p>Programme objective: Improve resource productivity and environmental performance of manufacturing, tourism and micro-sector enterprises in Indonesia and thereby contribute to inclusive and sustainable industrial development</p>	<ol style="list-style-type: none"> 1. <i>Environment</i>: reduced environmental footprint (⁵⁰) of enterprises 2. <i>Production Efficiency</i>: increased resource productivity (⁵¹) and reduced operational and/or compliance costs of enterprises 3. <i>Policy and institutional</i>: conducive policies and regulations implemented and enforced and RECP promoted by strong national custodian 4. <i>Innovation and Investment</i>: applicable high-impact RECP technologies made available with appropriate financing options 	<ul style="list-style-type: none"> • Mid-term and final project evaluation • Aggregated results from demonstration and replication components (outputs 2.1-2.4) • Introduction of new policies, legislation and/or guidelines • Introduction of new and/or adapted RECP technologies • Introduction of new and/or adapted financial instruments for RECP investments 	
Outcome (Principal)			
RECP concepts, methods, practices, technologies, synergies and policies implemented by enterprises, governments, and suppliers of technology, finance and business services in particular in the target enterprise groups	<ol style="list-style-type: none"> 1. RECP activities of enterprises 2. RECP activities of government 3. RECP initiatives of suppliers of technology, finance and business services 	<ul style="list-style-type: none"> • Mid-term and final project evaluation • Annual reports of enterprises, government agencies and suppliers of technology, finance and business services 	<ul style="list-style-type: none"> • RECP is beneficial for target enterprise groups in Indonesia and these can appropriate tangible and measurable benefits from implementation of RECP practices and technologies ('win-win' premise)
Outcomes (Contributing)			

⁵⁰ Environmental footprint is used as a shorthand for the total of the impacts of an enterprise 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 in terms of pollution intensities, i.e. kg waste per ton of product or kg of GHG emission per ton of product.

⁵¹ Resource productivity is concerned with the productive use of natural resources by the enterprise or other organization as measured in the ratio of value creation or productive output per unit of resource consumption (including water, energy and materials), e.g. MVA/energy (\$/MJ) or MVA/water (\$/GL).

Narrative Summary	Indicators	Means of Verification	Assumptions
<u>Outcome 1:</u> RECP Capacity and Network: Improved capacity for and widespread utilization of RECP services that support adaptation and adoption of RECP methods, practices and technologies	1.1. Recognition of INRECP and its nodal agencies (including CRECPI, CTB, ICPC and CAGIE) by private and public sectors and civil society	<ul style="list-style-type: none"> Mid- term and final project evaluation Annual activity, management and governance reports of NRECPI, ICPC, CRECPI, CAGIE and CTB 	<ul style="list-style-type: none"> Limited uptake of RECP by enterprises of the target groups is a result of lacking supply of appropriate, customized high quality RECP services that deliver value to target enterprises
<u>Outcome 2:</u> RECP Implementation and Replication: Increased implementation of RECP methods, practices and technologies by enterprises of the target groups with monitoring and verification of the environment, resource use and economic benefits accomplished ⁽⁵²⁾	2.1. Reduced waste and pollution intensities of enterprises 2.2. Increased resource productivity of enterprises 2.3. Reduced operational and compliance costs of enterprises	<ul style="list-style-type: none"> Environment, financial and/or sustainability reports of enterprises Annual reports of CRECPI and CTB Mid-term and final project evaluation 	<ul style="list-style-type: none"> There is insufficient consideration of the potential and importance of RECP as cornerstone for business contributions to efficient use of materials, water and energy, environmentally sound management of chemicals and reduction of process wastes and emissions 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
<u>Outcome 3:</u> RECP Policy and Regulatory Framework: Policy frameworks strengthened and put in place that foster the utilization of RECP methods, practices and (policy) instruments for the realization of the aims and objectives of the government's key relevant sector policies (in particular environment, industry, energy efficiency and tourism)	3.1. Increased role for RECP in environmental, industry, energy, tourism, innovation, competitiveness and other relevant policies at appropriate administrative levels 3.2. RECP opportunities are recognised and utilised for achieving international environmental commitments, including MEAs 3.3. RECP practices and technologies embedded in relevant technical standards and policy guidelines	<ul style="list-style-type: none"> Annual reports of ICPC, CAGIE and CRECPI Mid-term and final project evaluation Publication of relevant policies, strategies and guidelines by the Government of Indonesia 	<ul style="list-style-type: none"> Consideration and uptake of RECP methods by enterprises is constrained by lack of policy incentive from government and other organizations

⁵² Monitoring of benefits will follow the framework outlined in: *Enterprise level resource productivity and environmental pollution intensity indicators: a primer for Small and Medium Enterprises*, UNIDO and UNEP, 2010.

Narrative Summary	Indicators	Means of Verification	Assumptions
Outcome 4: RECP Technology and Innovation: Increased availability and affordability of suitable RECP technologies for the target enterprise groups in particular those contributing to and/or inspired by GC&E, IS and/or C2C	4.1. Number of RECP innovation projects identified, evaluated and promoted 4.2. Techno-economic and environmental benefits achievable from implementation of RECP technologies	<ul style="list-style-type: none"> • Reports of technology suppliers and innovation agencies • Mid-term and final project evaluation • Annual report of CRECPI and CTB • Case studies 	<ul style="list-style-type: none"> • Opportunities for implementation of RECP technologies exist in Indonesia, but are not realized due to lacking availability of customised technology innovation support services
Outcome 5: RECP Investment and Finance: Appropriate financial instruments for RECP investments in target enterprise groups proposed and promoted for implementation	5.1 Financial instruments proposed to and adopted by financial intermediaries 5.2 Volume of RECP investment realized with financial instruments and scale of environment and resource use benefits achieved	<ul style="list-style-type: none"> • Reports of financial intermediaries • Mid-term and final project evaluation 	<ul style="list-style-type: none"> • Profitable RECP investments are not being realized due to absence and/or non-affordability of financing for such investments
Output Work-package 1: RECP Capacity and Network			
Output 1.1: Professional and institutional capacities in place to deliver value adding RECP services	1.1.1. Basic RECP training delivered for national experts (target 75) 1.1.2. Programme of advanced trainings on specialised topics delivered (target four topics) 1.1.3. Establishment and/or operation of CRECPI, ICPC, CAGIE and CTB in accordance with respective project annual work plan	<ul style="list-style-type: none"> • Training reports • Annual - project - reports of CRECPI, ICPC, CAGIE and CTB • Mid-term and final project evaluation • Meeting minutes of RECP Coordination Committee and Advisory Forum 	<ul style="list-style-type: none"> • Lacking supply of value adding RECP services prevents enterprises in the target groups from considering and implementing RECP opportunities • Solid institutional foundation and transparent governance mechanisms required to bolster national ownership and continuity of service delivery ⁽⁵³⁾
Output 1.2: NRECPI established and operating as an active, multi-stakeholder, multi-functional network that fosters adaptation and adoption of RECP methods, policies, practices and technologies	1.2.1. Formation of RECP Coordination Committee and Advisory Forum 1.2.2. Charter for NRECPI developed and implemented 1.2.3. Professional development support provided per stakeholder group participating in NRECPI	<ul style="list-style-type: none"> • Annual project report of ICPC • Activity plans and reports for INRECPI • Meeting minutes of RECP Coordinating Committee and Advisory Forum 	<ul style="list-style-type: none"> • Mainstreaming and scaling-up of RECP implementation requires coordinated initiatives of different agencies, including government, business and professional associations, academia etc.

⁵³ Taking due consideration of: *Good Management, Organization and Governance Practices: a primer for the providers of services in resource efficient and cleaner production*, UNIDO and UNEP, 2010.

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><i>Output 1.3:</i> Integrated knowledge management system in place and programme for RECP promotion and learning in target enterprise groups developed, piloted and mainstreamed</p>	<p>1.3.1. Annual national RECP conferences (2016, 2017 and 2018)</p> <p>1.3.2. Annual RECP Prize</p> <p>1.3.3. Internet website and help-desk</p> <p>1.3.4. Awareness seminars (target 25)</p> <p>1.3.5. Plain language promotion materials for 11 target enterprise groups</p> <p>1.3.6. Best practice learning-by-sharing programme (target 300 participating enterprises)</p>	<ul style="list-style-type: none"> • Annual project report of ICPC • Availability of promotion materials • Proceedings of national conference • Attendance records of awareness seminars • Availability and currency of internet web-site and help-desk 	<ul style="list-style-type: none"> • Awareness and knowledge of opportunities for and benefits of RECP has remained low among target enterprise groups in Indonesia
Output Work-Package 2: RECP Implementation and Replication			
<p><i>Output 2.1:</i> Customized programme for implementation and replication of RECP methods, practices and technologies implemented and evaluated for three sectors of small scale industries (metal products, chemical products, food processing and textile sectors)</p>	<p>2.1.1. Implementation of RECP in ~12 demonstration companies each in four sectors (target ~50+ 'demonstration' enterprises)</p> <p>2.1.2. Development and promotion of group-based implementation/replication programme for three sectors (food, chemical and metals)</p> <p>2.1.3. Replication of RECP to at least 50 enterprises each for food, chemical and metal sectors, through 6 replication programmes for each of three sectors covering 6-10 enterprises per programme (target: ~ 150+'replication' enterprises)</p> <p>2.1.4. Assessed resource productivity, environment and economic benefits achieved by participating enterprises in four sectors</p> <p>2.1.5. 12-15 enterprise success stories of RECP implementation per sector (target: ~50 success stories)</p>	<ul style="list-style-type: none"> • Activity reports of CRECPI and ICPC • Annual reports of industry sector associations • RECP assessment reports for demonstration companies • Assessment reports on sector-level benefits • Enterprise success stories 	<ul style="list-style-type: none"> • RECP methods, practices and technologies can be utilised to achieve significant improvements in resource productivity, pollution intensity and chemicals management in target sectors of small industries

Narrative Summary	Indicators	Means of Verification	Assumptions
<p><u>Output 2.2:</u> Customized programme for implementation and replication of RECP practices, technologies and synergies implemented and evaluated for three industrial Zones (Batam, Makassar and Surabaya)</p>	<p>2.2.1. Implementation of RECP in 20-25 demonstration industries in each industrial park (target: 70+demonstration enterprises)</p> <p>2.2.2. Community of Practice operational on RECP in each industrial park (target: ~ 100 'replication' enterprises)</p> <p>2.2.3. Resource use and waste/emission profile for each industrial park</p> <p>2.2.4. RECP synergies identified, evaluated and promoted</p> <p>2.2.5. Assessed resource productivity, environment and economic benefits of participating enterprises</p> <p>2.2.6. Booklet on each industrial park with enterprise- and park-level successes</p>	<ul style="list-style-type: none"> • Activity reports of CRECPI • Annual reports of industrial parks • RECP assessment reports for demonstration companies • Success booklets 	<ul style="list-style-type: none"> • RECP methods, practices, technologies and synergies can be utilised to achieve significant improvements in resource productivity, pollution intensity and chemicals management at enterprise and estate level in target industrial parks
<p><u>Output 2.3:</u> Customized programme for implementation and replication of RECP methods, practices and technologies implemented and evaluated in two tourist regions (Lombok and Yogyakarta)</p>	<p>2.3.1. Implementation of RECP in 20 hotels and tourism enterprises in each region (target: 40+ demonstration enterprises)</p> <p>2.3.2. Thematic workshops and other learning activities delivered in each region, benefiting target of 100 'replication' enterprises</p> <p>2.3.3. Assessed cumulative benefits from promotion and implementation of RECP in region</p> <p>2.3.4. Booklet on each region with enterprise and region level successes</p>	<ul style="list-style-type: none"> • Activity reports CRECPI • Annual reports on tourism regions • Success booklets 	<ul style="list-style-type: none"> • RECP methods, practices and technologies can be utilised to achieve significant improvements in resource productivity, pollution intensity and chemicals management in hotels and their tourism-related supply chains
<p><u>Output 2.4:</u> Customized programme for implementation and replication of RECP methods, practices and techniques implemented and evaluated for two micro-sectors (tofu and silverware)</p>	<p>2.4.1. RECP needs assessed for target sectors</p> <p>2.4.2. Appropriate RECP techniques developed and tested</p> <p>2.4.3. Appropriate RECP techniques implemented in some 200 micro-enterprises per sector</p> <p>2.4.4. Booklet on each micro-sector</p>	<ul style="list-style-type: none"> • Annual reports CRECPI • Published tools, benchmarks and guidelines • Independent final project evaluation 	<ul style="list-style-type: none"> • RECP methods can be utilised to achieve significant improvements in resource productivity, pollution intensity and chemicals management in micro-enterprise sector.
Output Work Package 3: RECP Policy and Regulatory Framework			

Narrative Summary	Indicators	Means of Verification	Assumptions
<u>Output 3.1:</u> RECP Methods, practices and (policy) instruments promoted for realization of aims and objects of 10SCP and related industrial environmental management policies and strategies	3.1.1. (Environmental) Policy assessment report 3.1.2. Completion of RECP policy pilots with regional environmental authorities (2)	<ul style="list-style-type: none"> Policy assessment report Records of stakeholders' consultations Activity reports of ICPC 	<ul style="list-style-type: none"> Through MoEF, the Government of Indonesia has launched 10SCP and is committed to consider and implement RECP instruments and strategies that contribute to the achievement of the aims and objectives of the 10SCP, including through involvement of local/regional authorities
<u>Output 3.2:</u> RECP methods, practices and (policy) instruments promoted for realization of aims and objectives of GIR and related environmental technology policies and strategies	3.2.1. (Industry) Policy assessment report 3.2.2. RECP related standards and/or certification for industry sectors and industrial parks.	<ul style="list-style-type: none"> Policy assessment report Minutes of consultation meetings Issuance of relevant sector and/or industrial park standards and/or certification Activity reports of CAGIE 	<ul style="list-style-type: none"> Through MoI, the Government of Indonesia has launched the GIR and is committed to consider and implement RECP instruments and standards that contribute to the achievement of the aims and objectives of GIR
<u>Output 3.3:</u> RECP methods, practices and (policy) instruments promoted for realization of aims and objectives of the government's industrial energy efficiency and resource efficiency strategies and initiatives.	3.3.1. RECP action agenda for industrial energy efficiency prepared for MoEMR	<ul style="list-style-type: none"> Action agenda for promotion of industrial (energy) efficiency through RECP implementation 	<ul style="list-style-type: none"> Through MoEMR, the Government of Indonesia has launched the its energy efficiency framework and is committed to consider and implement RECP instruments and standards that contribute to energy efficiency
<u>Output 3.4:</u> RECP methods, practices and (policy) instruments promoted for realization of the aims and objectives of the governments (green) tourism strategies and initiatives	3.4.1. RECP action agenda for (green) tourism prepared for MoT	<ul style="list-style-type: none"> Action agenda for promotion of (green) tourism through RECP implementation 	<ul style="list-style-type: none"> Through MoT the Government of Indonesia has started to promote (green and sustainable) tourism and is committed to consider and implement RECP instruments and standards that contribute to more sustainable tourism
Output Work-Package 4: RECP Technology and Innovation			

Narrative Summary	Indicators	Means of Verification	Assumptions
<u>Output 4.1:</u> Appropriate RECP technologies for process innovations in particular for small scale industry sectors identify, using GC&E principles and practices, and promoted for implementation and investment	<p>4.1.1. Establishment of GC&E knowledge hub (at CRECPI)</p> <p>4.1.2. GC&E applied to environment and technology needs of food and chemical sectors</p> <p>4.1.3. Minimum of five innovative processes/techniques evaluated and promoted for implementation</p>	<ul style="list-style-type: none"> Activity reports of CRECPI Innovation GC&E case studies 	<ul style="list-style-type: none"> GC&E has demonstrated potential to generate new innovative process solutions for existing environmental and technology constraints in food and chemicals sectors.
<u>Output 4.2:</u> Appropriate RECP technologies for collective resources synergies in industrial zones identified, using IS practices and techniques, and promoted for implementation and investment	<p>4.2.1. IS knowledge base established at CRECPI</p> <p>4.2.2. IS concepts applied to three industrial zones</p> <p>4.2.3. Promotion of IS based synergy projects for implementation and investment (target 15)</p>	<ul style="list-style-type: none"> Activity reports of CRECPI Innovative Industrial Symbiosis case studies 	<ul style="list-style-type: none"> IS has proven potential to generate new innovative resource exchanges and synergies in existing industrial parks.
<u>Output 4.3:</u> Appropriate RECP technologies for sustainable product innovation identified, through application of C2C criteria and solutions, and promoted for implementation and investment	<p>4.3.1. C2C knowledge base established at CTB</p> <p>4.3.2. C2C concepts applied at some 4 textile enterprises</p>	<ul style="list-style-type: none"> Activity reports of CTB C2C product innovations developed and promoted 	<ul style="list-style-type: none"> C2C has proven potential to generate new innovative product concepts, including in particular in the textile sector.
Output Category 5: RECP Investment and Finance			
<u>Output 5.1:</u> Existing financial instruments available for financing RECP investments by target enterprise groups reviewed and gaps identified and evaluated	5.1.1. Financing opportunities and challenges mapped	<ul style="list-style-type: none"> Activity reports of CRECPI Financing Assessment report released 	<ul style="list-style-type: none"> The financing needs of enterprises considering to invest in RECP are not matched by financing services offer from financial institutions
<u>Output 5.2:</u> Proposals for financial instruments for fostering RECP investments developed, evaluated and promoted for implementation to financial institutions	<p>5.2.1. Proposed financing instruments and their uptake by financial institutions</p> <p>5.2.2. Investment volume created by financing instruments and economic and environmental benefits achieved</p>	<ul style="list-style-type: none"> Activity reports of CRECPI Reports of collaborating financial institutions 	<ul style="list-style-type: none"> National and/or international financial institutions are willing to create new financial instruments that meet genuine financing need of the enterprise groups
<u>Output 5.3:</u> Newly introduced and continued financial instruments available for financing of RECP investments by target enterprise groups reviewed and (remaining) gaps identified and evaluated	<p>5.3.1. Updated inventory of financial instruments</p> <p>5.3.2. Lessons learned, conclusions and recommendations for RECP Investment and Finance</p>	<ul style="list-style-type: none"> Inventory/analysis report published Activity reports of CRECPI 	<ul style="list-style-type: none"> Towards end of the national RECP Programme, availability and use of financial instruments for RECP investments should have increased

ANNEX 6: Preliminary list of counterparts, beneficiaries and stakeholders

Counterparts: are considered as the partners in planning, implementation, monitoring and evaluation of the project activities. These are:

- Government, in particular Ministry of Environment and Forestry, Ministry of Industry, Ministry of Tourism and Ministry of Energy and Mineral Resources (as per the project document), expanded to include also Ministry of Manpower and Ministry of Cooperatives and SME Development, as well as lower levels of government, in particular provincial governments in key project areas (already West Java, East Java, North Sumatra and South Sulawesi) as well as local government (Regencies of Batam, Sleman and Magelang), in most cases represented by at least the environmental agency and industrial agency, and in some cases also planning agency.
- Implementation Partners, as per the project document, Indonesian Cleaner Production Centre, Centre for RECP Indonesia, Centre for Textiles Bandung and Centre for Assessment and Development of Green Industry and Environment. Other 'affiliate' implementation partners include (but not limited to), Institute Technology 10th November (ITS), University Gadha Madha, Universitas Muhammeddian Magelang, Centre for Sugar Research, etc.

Beneficiaries: are the four groups of enterprises that benefit from implementation of RECP methods and techniques, in terms of improved competitiveness, market access, and reduced environmental footprint:

- Small scale industries, in particular in food processing, textile and garment, chemical products and metal products sectors
- Industrial regions, specifically Makassar, Batam and Surabaya
- Tourism enterprises (including hotels) in particular in Magelang/Sleman region and Bintan island
 - Micro-industries, focusing on palm sugar and either coffee or ceramics

Stakeholders: are the organizations that have an interest in or would be affected (positively or, possibly, negatively) by the project activities, such as:

- Business community, represented by business membership organizations, at national and subnational levels and at sector level. So far we have focused on KADIN Indonesian Chamber of Commerce, Food and Beverages Industries Association, Textile Industry Association, Foundry Association, Automotive Parts Association, Indonesia Business Links, etc.
- Government – Ministries (Environment and Forestry, Industry, Tourism, Energy and Mineral Resources, Manpower, Cooperatives and SME Development, Planning, etc.) including their regional representatives and technical institutes
 - Academia, Technical Institutes and Professional Associations

Annex 2 - List of persons met and consulted and field visit itinerary

List of persons met and consulted by the Evaluation Team

(Listed mainly in the sequence of appearance)

Name	Position	Institution
INDONESIA		
Mr Rene van Berkel	Chief Technical Advisor (CTA)	Located in ITB, Bandung. Former Cleaner Production Unit (CPU), Environment Management Branch (EMB), Programme Development and Technical Division (PTC), UNIDO, Vienna
Mr Nahrudin Alie	National Project Officer, RECP. (National Programme Officer)	UNIDO Country Office, Jakarta
Mr Lintong Sopandi Hutahaean	Director	Center for Assessment and Development of Green Industry and Environment (CADGIE), Agency for Research and Development of Industry, Ministry of Industry (MoI)
Ms Sri Gadis	Head,	Section of Promotion and Cooperation of Green Industry, ---“---
Ms Rizki Triana Putri	Staff	---“---
Mr Noer Adi Wardoyo	Director	Centre for Environment and Forestry Standards (CEFS), Ministry of Environment and Forestry (MoEF)
Mr Frans Teguh	Director for Infrastructure Development and Tourism Ecosystem	Ministry of Tourism (MoT)
Ms Sarah Hutagalung	Staff	---“---
Mr Bayuni Shantiko	Environmental Policy Advisor	On UNIDO contract under RECP in Indonesia Cleaner Production Centre (ICPC)
Ms Marti Yusnida	Advocacy and Network Manager	On UNIDO contract under RECP in ICPC
Mr Harris Fadillah	Green Industry Advisor	On UNIDO contract under RECP in CADGIE
Mr Timotheus Lesmana	Director. (Dep Head of permanent Comm. for SDG in KADIN)	ICPC. (Board member of Indonesian Chamber of Commerce and Industry – KADIN) + private enterprise)
Mr Martin Stottele	Head of economic Development Cooperation (SECO)	Swiss Embassy, Jakarta
Ms Dewi Suyenti Tio	National Programme Officer (SECO)	---“---
Ms Pertiwi Triwidiahening	National Project SCORE	ILO office, Jakarta
Mr Sudari Pawiro	National Chief Technical Advisor (CTA)	UNIDO, SMART-Fish Indonesia
Mr Limpat Budur Evanjam	Chief, Accounting	Yellow Star Ambarrukmo Hotel
Mr Zaenal Arifin	Engineering Coordinator	Yellow Star Ambarrukmo Hotel
Ms Ayu Laksmidewi	Head of Office	Culture & Tourism Office of Sleman Regency
Ms Shavitri N. Dewi	Head of Destination	Development Division, ---“---
Ms Endah Sri Widiastuti	Office Secretary	---“---
Mr. Sugeng Riyanta	Head	Division for Control of the Environment, Sleman Environmental Agency (Balai Lingkungan Hidup (BLH))
Ms Retno Rusdija	National Expert, Lecturer	Muhammadiyah University, Magelang
Mr Muhammad Dzulkifli	National Expert, Lecturer	Gadjah Mada University, Yogyakarta
Mr Samsul Kamal	National Expert, Professor	Mechanical and Industrial Engineering Dept., Engineering Faculty, Gadjah Mada University). Yogyakarta.

Mr Jussac Maulana	National Expert. Lecturer and Director	STIPRAM University (private), and Nityawara (private event organising company), Yogyakarta.
Mr Sidiq Wicaksono	National Expert, Lecturer	National Expert (came late). Yogyakarta
Mr Dedi Rosadi	Executive Assistant Manager	Grand Tjokro Hotel. Yogyakarta
Mr Suriyanto	Chief Engineer	---"---
Mr Antony Dwi Agus	FB Manager	---"---
Mr Agus Budi Santoso	Executive Housekeeper	---"---
Mr Umul Choir	Executive Chef	---"---
Mr Mochammad Iqbal	National Programme Manager	On UNIDO contract, Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI)
Mr Reno Raditya	Tourism and Policy Associate	---"---
Ms Ade Rahma Dyah Hartanti	Associate Process Chemist	---"---
Ms Hanum Vionita	Associate Process Engineer	---"---
Mr Tjandra Setiadi	Head of CRECPI, Professor in Bioprocess engineering	CRECPI, Institute of Technology Bandung (ITB)
Ms Puji Lestari	Dep Head CRESPI, Air Pollution Expert	---"---
Mr Bambang Riyanto Trilaksono	Vice Rector for Research, Innovation and Partnership	ITB
Mr Ardiyan Harimawan	Lecturer	Faculty of Technology Industry, ITB
Ms Mayrina Firdayati	Lecturer	Environmental Engineering Department, ITB
Mr Muhammad Ibrahim Aji	Assistant Lecturer	ITB
Mr Piqhi Rizqi	Head	Sub-Division for Amdal and Environmental Technology, Environmental Agency of West Java Province (BPLHD), Bandung
Ms Puspita Hajar	Staff	---"---
Ms Fifi Afiany	Staff	---"---
Mr Deddy Effendy	Head	Division for Environmental Management, BPLHD, Bandung
Ms Hera Hendrayani	Executor	Development of Control of Environmental Pollution, BPLHD, Bandung
Ms Puspita Hajar	Staff, Technical Engineering	Sub-division of AMDAL, BPLHD, Bandung
Ms Fifi Afiani	Staff, Technology	---"---
Mr Nurendra Pramdhani Kusuma	Technical Manager	Ganesh Energy and Environmental Service (GEES), (admin enterprise contracted by ITB for RECP), Bandung
Ms Lia Nurliah	Finance	---"---
Mr Sunita Dasman	Textile Specialist	On UNIDO contract, Centre for Textile Bandung (CTB), Ministry of Industry
Mr Sony Sulaksono	Head	CTB, MoI
Ms Wiwin Winiati	Expert Staff, RECP Coordinator	CTB, MoI
Ms Gita Fardani Swastina	National Expert, chemistry	Institute of Technology Bandung (ITB)
Ms Delicia Purdanisari	National Expert, textile	Textile Technology Institute (Sekolah Tinggi Teknologi Tekstil – STTT, or ST3)
Ms Hariyanti Rahayu	National Expert, textile	STTT
Mr Saeful Islam	National Expert, textile	CTB, MoI
Mr Mulia Hendra	National Expert, mechanical engineering	CTB, MoI
Mr Tatang Wahyudi	National Expert, chemistry	CTB, MoI
Mr Doni Sugiyane	National Expert, environment	CTB, MoI
Mr Mukti Widodo	National Expert, mechanical engineering	CTB, MoI
Mr Y. Agung DM	National Expert, textile engineering	Lucky Print Abadi Ltd. (A pilot company in RECP programme).
Mr Agung Hermawan Liem	Mill Manager	Pt. Bandung Sakura Textile Mills
Mr Agus Yusman	Head	Division for Electrical Engineering, ---"---

Mr Dede Darwita	Head	General Engineering, ---“---
Mr Iwan Mulyodin	Head	Electrical Engineering Affairs, ---“---
Mr Faridin Bahari	Head	Personnel Division, ---“---
Ms Benedikta Anna Haulian	National Expert/Industrial Engineering	Riau Kepulauan University, Batam
Ms Febuana Kusuma	National Expert/Consultant	Own company/freelance, Batam
Mr Teddy Tambunan	National Expert/ Environmental Manager	PANBIL Industrial Estate, Batam
Mr Yasmarli	National Expert/graduate	University of Riau, Batam
Mr Husaini Rahman	National Expert/ Environmental Consultant	Own company/freelance, Batam
Ms Agnes Budiman	Dep. Marketing Director	PANBIL Industrial Estate, Batam
Mr N. Sam	Staff, Environmental Office	---“---
Ms Veiliana Susandra	Commercial General Manager	PT. Raajratna Wire, Batam
Mr Heri Kafianto	Staff	Perecanaan Programme (RENPROLITBANG), Batam Indonesian Free Zone Authority
Ms Ratih Agustine Putri	Staff	---“---
Ms Fatma M.	Head	Sub-division for the Environment, Batam Indonesian Free Zone Authority
Ms Nujanah Siregar	Head	Section for the Utilisation of Agrobusiness Assets, Batam Indonesian Free Zone Authority
Mr Memet E. Rachmat	Head	Division for Environmental Planning, Batam Indonesian Free Zone Authority
Mr M. Nurhidayat	Head	Bureau of Technical Planning, Batam Indonesian Free Zone Authority
Mr Tato Wahyu H.	Head of Office	Office of the Management of Water & Waste, Batam Indonesian Free Zone Authority
Mr Iyus Rusmana	Head	Division for Waste Management, Batam Indonesian Free Zone Authority
Mr Firmansya Fattah	Secretary	Environmental Impact Management Agency (BAPEDAL), Batam
Mr Didi Wahyudi	Staff	--“---
Person participating in the de-briefing meeting, not met with in other meetings and listed above:		
Mr Hamzah	Coordinator	Directorate General of Industrial Resilience and International Access Development, MoI, Jakarta
Ms Nirmala	Staff	---“---
Ms Fikra Sufi Hijrisari	Staff	---“---
Ms Diah Wati	Staff	CEFS, MoEF, Jakarta
Mr Willy Fandri	Staff	CADGIE, MoI, Jakarta
Ms Tini	Expert Staff	CTB, Bandung
Post-fieldwork telephone meeting:		
Mr Phillipp Ischer	Program Manager	The Economic Cooperation and Development Division, SECO, Bern, Switzerland
Ms Dewi Suyenti Tio	National Programme Officer (SECO)	Swiss Embassy Jakarta
VIENNA, UNIDO HQs:		
Mr Christian Susan	Project Manager (RECP Project Indonesia). Industrial Development Officer	Industrial Resource Efficiency (IRE) Division, Dept. of Environment (ENV), Programme Development and Technical Cooperation (PTC)
Ms Müge Dolun	Evaluation Officer	Independent Evaluation Division (IEV), Office of Independent Evaluation and Quality Monitoring (EVQ), Office of Director General (ODG)
Person participating in the de-briefing meeting at UNIDO HQs, not met with in other meetings and listed above		
Mr Stephen Siccars	Director	ENV, PTC
Ms Nilgün Tas	Division Chief	IRE, ENV, PTC
Mr Jérôme Stucki	Industrial Development Officer	Emerging Compliance Regimes Division (ECR), ENV, PTC
Ms Elisabeth Müller	Expert	ECR, ENV, PTC
Mr Javier Guarnizo	Chief	IEV, EVQ, ODG
Mr Thuy Le	Evaluation Officer	IEV, EVQ, ODG

Final itinerary of UNIDO RECP Mid Term Evaluation to Indonesia, from 10 to 19 Oct 2016

(Mr. Tore Laugerud and Ms. Farisidah Lubis)

Date Time	Schedule	Venue	Remarks
Sunday, 9 Oct 2016			
Around 08:00	Arriving Jakarta: Mr. Tore Laugerud	Soekarno Hatta Airport	Stay at the Sari Pan Pacific Hotel, Jalan MH Thamrin, Jakarta. Reservation is confirmed.
PM	Evaluation team meeting and introductory meeting with CTA, as time allowed	Sari Pan Pacific Hotel, Jakarta	Discussion on evaluation issues
Monday, 10 Oct 2016			
08:30 – 10:00	Meeting with Mr: Rene Van Berkel, UNIDO O-i-C and CTA RECP Programme	UNIDO Office	Confirmed
10:30 – 11:15	Meeting with Mr. Lintong Sopandi Hutahaean, Director of Centre for Assessment and Development of Green Industry, MOI	MOI Building, 20 th floor, Jl. Gatot Subroto Kav. 52 – 53, Jakarta Tel: 62 21 525 2746	Confirmed by CADGIE
11:30 – 12:30	Meeting with Mr. Noer Adi Wardoyo, Director, Centre for Environment and Forestry Standards, Ministry of Environment and Forestry	Manggala Wanabakti Blok VII, 8 th floor, Jl. Jend. Gatot Subroto Jakarta	Confirmed through P Bayuni
12:30 – 14:00	Break		
14:00 – 15:00	Meeting with Mr. Frans Teguh, Assistant Deputy on Infrastructure and Ecosystem, Ministry of Tourism	MOT Building, Jl. Medan Merdeka Barat 3 rd floor	Confirmed by P Frans
15:15 – 16:30	Meeting with long term national project staff <ul style="list-style-type: none"> • Nahrudin Alie: National Programme Officer (UNIDO/CADGIE); • Harris Fadillah: Green Industry Specialist (CADGIE) • Marti Yusnida: Advocacy and Network Manager (ICPC); • Bayuni Shantiko: Environment Policy Expert (ICPC) 	UNIDO Office	Confirmed
Tuesday, 11 Oct 2016			
09:00 – 10:00	Meeting with Mr. Timothy Lesmana, Executive Director of Indonesian Celaner Production Centre (ICPC/PPBN)	Manggala Wanabakti Blok VII, 8 th floor, Jl. Jend. Gatot Subroto Jakarta	Confirmed by pak Bayu
10:30 – 11:30	Meeting with Mr: Martin Stottele, Head of SECO Jakarta	Embassy of Switzerland, Jakarta, Tel: 62 21 525 6061 ext. 313	Confirmed by Ibu Nayu
13:00 – 14:00	Meeting with Mr. Januardi Rasudin, Programme Officer, ILO SCORE Project	ILO office, 22 nd floor, Menara Thamrin, Jakarta	To be confirmed (meeting requested)
14:15 – 15:00	Meeting with Mr. Sudari, NCTA SMART-Fish Indonesia	UCO office	To be confirmed (requested requested)
16:00	Leaving for Sukarno Hatta International Airport for Sleman		
19:35	Flight to Jogjakarta, transfer to Yellow Star Hotel		Flight to be booked
Wednesday, 12 Oct 2016			
08:00– 09:00	Meeting with Head Yellow Star Hotel	Jl. Laksda Adisucipto No.23, Demangan, Kabupaten Sleman, Daerah Istimewa Yogyakarta 55281	
09:00 – 09:30	Transfer to Sleman Tourism Office		
09:30 – 10:30	Meeting with Head of Sleman Tourism Board	Jl. KRT. Pringgodingrat, No. 13, Beran, Tridadi, Kec. Sleman, Daerah Istimewa Yogyakarta	
10:30– 11:30	Meeting with Head of Sleman Environmental Agency	Jl. KRT. Pringgodingrat, No. 9, Beran, Tridadi, Kec. Sleman, Daerah Istimewa Yogyakarta	
11.40 – 12.00	Transfer to Grand Tjokro Hotel		
12.00 – 13.00	Lunch Break	Jl. Affandi No.37, Caturtunggal, Kec. Sleman, Kabupaten Sleman, Daerah Istimewa Yogyakarta 55287	

13.00 – 14.00	Meeting with NEs at Grand Tjokro Hotel		
14.00 – 15.00	Meeting with Grand Tjokro Hotel Management		
15.00 – 16.00	Meeting with Hotels and Restaurants Association – Sleman at Grand Tjokro Hotel		
16.00 – 16.50	Transfer to Jogjakarta Airport		
18:10	Evaluators' flight to Bandung. Sensa Hotel Bandung		
Thursday, 13 Oct 2016			
09:00 – 10:00	Meeting with CRECPI project staff	Jl. Sangkuriang No. 42A, Bandung 40135	Confirmed by CRECPI
10:00 – 11:00	Meeting with National Experts	Jl. Sangkuriang No. 42A, Bandung 40135	
11:00 – 12:00	Meeting with Pak Tjandra and Bu Puji	Jl. Sangkuriang No. 42A, Bandung 40135	Confirmed by CRECPI
12:00 – 13:00	Break		Confirmed by CRECPI
13.00 – 13.30	Transfer to rectorate office		
13.30 – 14.30	Meeting with vice rector of ITB	ITB rector office, Jl. Tamansari 64 Bandung	Confirmed by Vice rector of ITB
14.30 – 15.00	Transfer to Environmental agency office		
15.00 – 16.00	Meeting with Environmental Agency of West Java Province	Jl. Naripan No.25, Braga, Sumur Bandung, Kota Bandung	tbc
16.00 – 16.30	Transfer to PT. GEES (Contracting Enterprise of ITB for CRECPI)		
16.30 – 17.00	Meeting with GEES	Jl. Taman Sari no.64 Bandung	Confirmed by GEES
Friday, 14 Oct 2016			
08:30 – 09:30	Meeting with UNIDO staff in CTB	JL. Jenderal Ahmad Yani No.390, Kebonwaru, Bandung	Confirmed by CTB
09.30 – 10.30	Meeting with Head of CTB	CTB office	Confirmed by CTB
10.30 – 11.30	Meeting with all experts (NEs)	CTB office	Confirmed by CTB
13:00 – 16:00	Visit to one textile company in Bandung		Confirmed by CTB
Saturday and Sunday, 15 Oct and 16 Oct to be decided by the mission. Harmoni One Hotel, Batam			
Monday, 17 Oct 2016			
08.30 – 09:30	Meeting with National Experts	Jalan Jenderal Ahmad Yani, Muka Kuning, Sei Beduk, Kota Batam	Discussion and feedback from National Experts
09:30 – 10:30	Meeting with Management of Panbil Estate	Panbil Industrial Estate, Block B2A, Lot 3A	Discussion and feedback from industry management
10:40 – 11:30	Meeting with management of PT Win Win Rubber Technologies (NO SHOW!!)	Panbil Industrial Estate, Block B2A, Lot 3A	---“---
11:40 – 12:30	Meeting with PT. Raajetna Wire	Tunas Industrial Estate	---“---
12:30 – 13:30	Break		
14:00 – 15:00	Meeting with BP Batam	Jl. Sudirman No. 1 Batam Centre, Batam	Discussion with local stakeholder
15:15 – 16:15	Meeting with Head of BAPEDAL Batam	Jl. Engku Putri No.17, Baloi Permai, Batam	Discussion with local stakeholder
19:15 – 21:00	Evaluator's flight to CGK		
Tuesday, 18 Oct 2016			
10:00 – 16:00	Team work. Follow up meetings. Preparation of de-briefing presentation		
Wednesday, 19 Oct: 2016			
09:30 – 12:30	Project De-briefing	Aceh Room, MTB 7 th floor	Key Stakeholders were notified
Lead Evaluator - Leaving Jakarta			

**NATIONAL RESOURCE EFFICIENT AND CLEANER PRODUCTION (RECP) PROGRAMME
IN INDONESIA**

MID-TERM INDEPENDENT PROJECT EVALUATION, October/November 2016

Debriefing Meeting

Aceh Meeting Room, 7th floor, Menara Thamrin Building, Jakarta, Indonesia

Wednesday, 19 October 2016

09:30hrs – 12:30hrs

List of Participants

no.	name	organization
1	Ms. Diah Wati	Staff, Center for Environment and Forestry Standard, Ministry of Environment and Forestry
2	Mr. Willy Fandri	Staff, Center for Assessment and Development of Green Industry and Environment (CADGIE), Ministry of Industry
3	Mr. Hamzah	Staff, Directorate General of International Cooperation, Ministry of Industry
4	Ms. Nirmala	Staff, Directorate General of International Cooperation, Ministry of Industry
5	Ms. Fikra Sufi Hijrisari	Staff, Directorate General of International Cooperation, Ministry of Industry
6	Ms. Sarah Rainy	Staff, Directorate of Infrastructure Development and Tourism Ecosystem, Ministry of Tourism
7	Ms. Wiwin Winiati	Expert Staff, Center for Textile Bandung (CTB), Ministry of Industry
8	Ms. Tini	Expert Staff, Center for Textile Bandung (CTB), Ministry of Industry
9	Mr. Rene Van Berkel	Chief Technical Advisor (CTA), National Resource Efficient and Cleaner Production (RECP) Programme Indonesia
10	Mr. Nahrudin Alie	National Programme Officer, UNIDO Country Office (UCO) Indonesia
11	Mr. Mochammad Iqbal	National Programme Manager (NPM), National Resource Efficient and Cleaner Production (RECP) Programme Indonesia
12	Mr. Harris Fadilah	Green Industry Advisor, National Resource Efficient and Cleaner Production (RECP) Programme Indonesia
13	Ms. Marti Yusnida	Advocacy and Network Manager, National Resource Efficient and Cleaner Production (RECP) Programme Indonesia
14	Mr. Bayuni Shantiko	Environmental Policy Advisor, National Resource Efficient and Cleaner Production (RECP) Programme Indonesia
15	Mr. Tore Laugerud	Team Leader, Independent Mid-Term Evaluation of project National Resource Efficient and Cleaner Production (RECP) Programme Indonesia and Natural Resources and Environment Adviser/Partner, Nordic Consulting Group, Oslo, Norway
16	Ms. Farsidah Lubis	National Consultant, member of the mid-term project evaluation team of project National Resource Efficient and Cleaner Production (RECP) Programme Indonesia

Annex 3 - Bibliography

List of main documents reviewed:

No.	Title	Institution/(Author)	Date
Project-related Documents			
1.	National Resource Efficient and Cleaner Production (RECP) programme Indonesia. Project document	UNIDO	20.03.2012
2.	National Resource Efficient and Cleaner Production (RECP) Programme Indonesia. Amendment to Project document	UNIDO	15.05.2015
3.	Minutes of Meeting, 1 st Project Management Committee (PMC) meeting	---"---	29.11.2013
4.	Minutes of Meeting, 2 nd PMC meeting	---"---	14.02.2014
5.	Minutes of Meeting, 3 rd PMC meeting	---"---	13.06.2014
6.	Minutes of Meeting, 4 th PMC meeting	---"---	5.05.2015
7.	Minutes of Meeting, 5 th PMC meeting	---"---	16.12.2015
8.	Minutes of Meeting, 6 th PMC meeting	---"---	12.04.2016
9.	Minutes of Meeting, 1 st RECP Coordination Committee (RCC) meeting	---"---	06.12.2012
10.	Minutes of Meeting, 2 nd (RCC) meeting	---"---	22.10.2013
11.	Minutes of Meeting, 3 rd (RCC) meeting	---"---	13.11.2015
12.	Project Progress Report Jun12-Dec14	CTA, ---"---	18.05.2015
13.	Project Progress Report Jan15-Jun15	---"---	27.11.2015
14.	Project Progress Report Jul15-Dec15	---"---	13.04.2016
15.	Project Progress Report Jan16-Jun16	---"---	15.09.2016
16.	Monthly report for the PMC, July 2016	---"---	04.08.2016
17.	Monthly report for the PMC, Aug 2016	---"---	13.09.2016
18.	Monthly report for the PMC, Oct 2016	---"---	13.10.2016
19.	Memorandum of Understanding (MoU) between Institute of Technology Bandung (ITB) and Grand Tjokro Hotel (Indonesian)	CRECPI, ITB	08.04.2016
20.	MoU between ITB and Yellow Star Hotel (Indonesian)	---"---	June 2016
21.	Terms of Reference for Project Personnel under Individual Service Agreement (ISA) National Resource Efficient and Cleaner Production (RECP) Programme Indonesia. Associate Process Chemist	UNIDO	01.10.2016
22.	Presentation of CRECPI staff with photos	CRECPI	??
23.	RECP Initial training modules (Batam) in PowerPoint	UNIDO	Feb-March 2016
24.	Continued training handouts for Batam, Exercises and PowerPoint modules	UNIDO	May 2016
25.	One-day RECP workshop + training. Various PDF documents and PowerPoint presentations	UNIDO	12.10.2016
26.	1 st RECP training in Tourism Sector, Various guidelines and modules in PowerPoint.	UNIDO	March-April 2016
27.	Illustrated presentation of RECP Indonesia (English, 4 pages)	UNIDO and partners	08.11.2015
28.	Scanned advert for CTA and National Programme Manager in the newspaper KOMPAS (paper in Indonesian and advert in English)	UNIDO	03.11.2013
29.	Vacancy announcement, temporary appointment of project personnel. Internal/External (CTA, L5)	---"---	20.01.2014
30.	Vacancy announcement, temporary appointment of project personnel. Internal/External (CTA, L6)	---"---	17.10.2014
31.	Vacancy announcement, temporary appointment of project personnel. Internal/External (CTA, L6)	---"---	13.03.2015
Other Documents:			
32.	Towards a Green Industry Index. PowerPoint presentation	UNIDO (Rene van Berkel)	2016

	at the Green Industry Conference		
33.	UNIDO Country Programme 2016-2020, Republic of Indonesia	UNIDO	December 2015
34.	Independent Terminal Evaluation. Strengthening of the National Cleaner Production Centre in Tunisia, part one: Phases 1 and 2 . (UNIDO project Nos. UE/TUN/09/001, UE/TUN/09/004 - SAP 104107)	UNIDO, Office for Independent Evaluation	October 2015
35.	Independent Mid-Term Evaluation. Joint UNIDO-UNEP RECP Programme for Developing and Transition Countries (UNIDO project No. UE/GLO/11/035 - SAP 100050)	UNIDO, Office for Independent Evaluation	October 2015
36.	Independent final evaluation. National Cleaner Production Programme – Republic of Moldova (UNIDO project number: UE/MOL/11/002SAP ID 104143)	UNIDO, Office for Independent Evaluation	September 2015
37.	Independent mid-term evaluation. Promoting the adaptation and adoption of RECP through the establishment and operation of a CPC in Ukraine (UNIDO project Nos. UE/UKR/11/ 001, UE/UKR/11/002/A02, SAP ID: 104112)	UNIDO, Office for Independent Evaluation	June 2015
38.	Independent UNIDO Country Evaluation, The Republic of Indonesia (ODG/EVA/15/R.4)	UNIDO, Office for Independent Evaluation	May 2015
39.	UNIDO's Evaluation Policy	UNIDO	19.03.2015
40.	Third Year Achievement Report, Clean Batik Initiative. Feb12-Jan13	EKONID, EU-SWITCH	Feb 13 (?)
41.	UNIDO Green Industry. Policies for supporting Green Industry.	UNIDO	May 2011
42.	A greener footprint for industry. Opportunities and challenges of sustainable industrial development	UNIDO	2010
43.	Various brochures from the SCORE programme	ILO	Various

Annex 4 – Project financial data

UNIDO National Resource Efficient and Cleaner Production (RECP) Programme Indonesia

SAP ID	100224
period	1 Jan 2013 - 30 Sept 2016
donor	Government of Switzerland, State Secretariat for Economic Affairs
lead government counterpart	Ministry of Environment and Forestry, Indonesia

Financial Summary

Project budget		Notes	
Donor Commitment	CHF 4,244,936.00	As per project amendment, agreed by PMC on 15 May 2015	
	\$4,399,808.94	Estimated USD equivalent based on bank transfer from first instalment	
Programme Support Costs	\$506,172.71		
Net Project Budget	\$3,893,636.23		
Net funding Transferred to UNIDO	\$3,467,910.91	equivalent of CHF 3,780,800 inclusive of support costs	
Total direct expenditures until 30 September 2016	\$1,235,320.22		
Net Funds Available 1 Oct 2016	\$2,232,590.69		

Part 1: Financial report by output/workstream

		Expenditures	Budget
Workstream	UNIDO Reference	Jan 2013 -Sep 2016	
1. RECP Capacity and Network	100224-1-01-04	\$141,820.08	\$325,555.62
2. RECP implementation and Replication	100224-1-01-05	\$234,059.55	\$970,657.04
3. RECP Policy and Strategy	100224-1-01-06	\$99,281.34	\$406,940.00
4. RECP Innovation	100224-1-01-07	\$56,204.80	\$480,134.99
5. RECP investment	100224-1-01-08	\$3,379.95	\$147,600.00
Project Management & Monitoring	100224-1-01-10	\$682,758.56	\$1,562,748.58
independent evaluation	100224-1-53-03	\$17,815.94	
	Direct Project Costs	\$1,235,320.22	\$3,893,636.23
	13% PSC	\$160,591.63	\$506,172.71
	grand total	\$1,395,911.85	\$4,399,808.94

Part 2: Financial report by UNIDO budget line

Budget line	UNIDO reference	Jan 2013 -Sep 2016	
international experts	1100	\$361,494.41	\$948,159.27
project travel	1500	\$51,965.11	\$207,610.23
staff travel	1600	\$71,184.48	\$70,241.78
national experts	1700	\$307,052.46	\$1,352,644.97
contracted services	2100	\$279,071.70	\$824,139.69
training	3000	\$110,199.24	\$288,092.64
international meetings	3500	\$8,410.65	\$35,912.44
premises	4300	\$398.42	
equipment	4500	\$21,771.45	\$87,847.78
other direct costs	5100	\$23,772.30	\$78,987.43
contingencies	7100	\$-	
	Direct Project Costs	\$1,235,320.22	\$3,893,636.23
	13% PSC	\$160,591.63	\$506,172.71
	grand total	\$1,395,911.85	\$4,399,808.94

Annex 5 - Project achievement as per end September 2016

Table 1: Assessment of Progress against Logical Framework

(Largely based on the project Progress Report Jan-Jun2016, updated with last information from the Project Management including up to end-September in yellow shading.)

Narrative Summary	Indicators	Means of Verification	Progress to Date
Objective			
Programme objective: Improve resource productivity and environmental performance of manufacturing, tourism and micro-sector enterprises in Indonesia and thereby contribute to inclusive and sustainable industrial development	Aspects: 5. <i>Environment:</i> reduced environmental footprint (⁵⁴) of enterprises 6. <i>Production Efficiency:</i> increased resource productivity (⁵⁵) and reduced operational and/or compliance costs of enterprises 7. <i>Policy and institutional:</i> conducive policies and regulations implemented and enforced and RECP promoted by strong national custodian 8. <i>Innovation and Investment:</i> applicable high-impact RECP technologies made available with appropriate financing options	<ul style="list-style-type: none"> • Mid-term and final project evaluation • Aggregated results from demonstration and replication components (outputs 2.1-2.4) • Introduction of new policies, legislation and/or guidelines • Introduction of new and/or adapted RECP technologies • Introduction of new and/or adapted financial instruments for RECP investments 	
Outcome (Principal)			
RECP concepts, methods, practices, technologies, synergies and policies implemented by enterprises, governments, and suppliers of technology, finance and business services in particular in the target enterprise groups	4. RECP activities of enterprises 5. RECP activities of government 6. RECP initiatives of suppliers of technology, finance and business services	<ul style="list-style-type: none"> • Mid-term and final project evaluation • Annual reports of enterprises, government agencies and suppliers of technology, finance and business services 	<ul style="list-style-type: none"> • Government of Indonesia has adopted during 2013-2015 conducive policy strategies, planning and headline legislation for SCP, GI and ST • ASEAN 2025 Blueprints include SCP and responsible business conduct/social responsibility as enablers for success of the ASEAN economic integration.
Outcomes (Contributing)			

⁵⁴ Environmental footprint is used as a shorthand for the total of the impacts of an enterprise 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 in terms of pollution intensities, i.e. kg waste per ton of product or kg of GHG emission per ton of product.

⁵⁵ Resource productivity is concerned with the productive use of natural resources by the enterprise 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).

<p>Outcome 1: RECP Capacity and Network: Improved capacity for and widespread utilization of RECP services that support adaptation and adoption of RECP methods, practices and technologies</p>	<p>1.2. Recognition of INRECP and its nodal agencies (including CRECPI, CTB, ICPC and CAGIE) by private and public sectors and civil society</p>	<ul style="list-style-type: none"> • Mid- term and final project evaluation • Annual activity, management and governance reports of NRECPI, ICPC, CRECPI, CAGIE and CTB 	<ul style="list-style-type: none"> • CRECPI created as organizational unit in ITB (2013) and its office was established and opened (2014). • MoEF formalized in February 2016 the relaunch of a reinvigorated ICPC under joint management with KADIN • Integrated biannual project reports provided and partner specific work plans developed and updated
<p>Outcome 2: RECP Implementation and Replication: Increased implementation of RECP methods, practices and technologies by enterprises of the target groups with monitoring and verification of the environment, resource use and economic benefits accomplished⁽⁵⁶⁾</p>	<p>2.4. Reduced waste and pollution intensities of enterprises 2.5. Increased resource productivity of enterprises 2.6. Reduced operational and compliance costs of enterprises</p>	<ul style="list-style-type: none"> • Environment, financial and/or sustainability reports of enterprises • Annual reports of CRECPI and CTB • Mid-term and final project evaluation 	<ul style="list-style-type: none"> • RECP assessments under way in 70 demonstration enterprises, yet none completed so that actual benefits cannot yet be confirmed and summed up
<p>Outcome 3: RECP Policy and Regulatory Framework: Policy frameworks strengthened and put in place that foster the utilization of RECP methods, practices and (policy) instruments for the realization of the aims and objectives of the government's key relevant sector policies (in particular environment, industry, energy efficiency and tourism)</p>	<p>3.4. Increased role for RECP in environmental, industry, energy, tourism, innovation, competitiveness and other relevant policies at appropriate administrative levels 3.5. RECP opportunities are recognised and utilised for achieving international environmental commitments, including MEAs 3.6. RECP practices and technologies embedded in relevant technical standards and policy guidelines</p>	<ul style="list-style-type: none"> • Annual reports of ICPC, CAGIE and CRECPI • Mid-term and final project evaluation • Publication of relevant policies, strategies and guidelines by the Government of Indonesia 	<ul style="list-style-type: none"> • In parallel with project start up, MoEF, MoI and MoT prepared and launched during 2013-2015 conducive policy strategies on SCP, GI and ST, respectively
<p>Outcome 4: RECP Technology and Innovation: Increased availability and affordability of suitable RECP technologies for the target enterprise groups in particular those contributing to and/or inspired by GC&E, IS and/or C2C</p>	<p>4.1. Number of RECP innovation projects identified, evaluated and promoted 4.2. Techno-economic and environmental benefits achievable from implementation of RECP technologies</p>	<ul style="list-style-type: none"> • Reports of technology suppliers and innovation agencies • Mid-term and final project evaluation • Annual report of CRECPI and CTB • Case studies 	<ul style="list-style-type: none"> • Outcome not yet addressed

⁵⁶ Monitoring of benefits will follow the framework outlined in: *Enterprise level resource productivity and environmental pollution intensity indicators: a primer for Small and Medium Enterprises*, UNIDO and UNEP, 2010.

<p>Outcome 5: RECP Investment and Finance: Appropriate financial instruments for RECP investments in target enterprise groups proposed and promoted for implementation</p>	<p>5.3 Financial instruments proposed to and adopted by financial intermediaries</p> <p>5.4 Volume of RECP investment realized with financial instruments and scale of environment and resource use benefits achieved</p>	<ul style="list-style-type: none"> • Reports of financial intermediaries • Mid-term and final project evaluation 	<ul style="list-style-type: none"> • Outcome not yet addressed
Output work stream 1: RECP Capacity and Network			
<p>Output 1.1: Professional and institutional capacities in place to deliver value adding RECP services</p>	<p>1.1.4. Basic RECP training delivered for national experts (target 75)</p> <p>1.1.5. Programme of advanced trainings on specialised topics delivered (target four topics)</p> <p>1.1.6. Establishment and/or operation of CRECPI, ICPC, CAGIE and CTB in accordance with respective project annual work plan</p>	<ul style="list-style-type: none"> • Training reports • Annual – project – reports of CRECPI, ICPC, CAGIE and CTB • Mid-term and final project evaluation • Meeting minutes of RECP Coordination Committee and Advisory Forum 	<ul style="list-style-type: none"> • Start-up RECP training delivered to 18 senior representatives of national partners (Bandung, 16-17 June 2014) • Class room training (2 sessions, total 6 days each) delivered to five batches of national experts, , and satisfactorily completed by 59 national experts. • Total of 59 experts from the training groups under coaching as associate RECP assessor. • CRECPI created by ITB decision and its offices established and equipped with project support • ICPC re-strategized and re-launched by MoEF
<p>Output 1.2: NRECPI established and operating as an active, multi-stakeholder, multi-functional network that fosters adaptation and adoption of RECP methods, policies, practices and technologies</p>	<p>1.2.4. Formation of RECP Coordination Committee and Advisory Forum</p> <p>1.2.5. Charter for NRECPI developed and implemented</p> <p>1.2.6. Professional development support provided per stakeholder group participating in NRECPI</p>	<ul style="list-style-type: none"> • Annual project report of ICPC • Activity plans and reports for INRECPI • Meeting minutes of RECP Coordinating Committee and Advisory Forum 	<ul style="list-style-type: none"> • ToR for RCC developed and three preparatory meetings held on 6 December 2012, 22 October 2013 and 13 November 2015 • National experts' consultation organized to outline network strategy (Bandung 17-18 Feb 2016) and further discussed during three regional consultations and 2 sector dialogues (in connection with 1.3)

<p><i>Output 1.3:</i> Integrated knowledge management system in place and programme for RECP promotion and learning in target enterprise groups developed, piloted and mainstreamed</p>	<p>1.3.7. Annual national RECP conferences (2016, 2017 and 2018) 1.3.8. Annual RECP Prize 1.3.9. Internet website and help-desk 1.3.10. Awareness seminars (target 25) 1.3.11. Plain language promotion materials for 11 target enterprise groups 1.3.12. Best practice learning-by-sharing programme (target 300 participating enterprises)</p>	<ul style="list-style-type: none"> • Annual project report of ICPC • Availability of promotion materials • Proceedings of national conference • Attendance records of awareness seminars • Availability and currency of internet web-site and help-desk 	<ul style="list-style-type: none"> • One national (Jakarta, 17 Nov 2015) and three regional business consultations (Makassar, Bandung and Medan, 11 and 13 April and 12 May 2016) and two sector dialogues (food 14 April 2016 and textile (24 May 2016) held to raise awareness, appraise past experiences and build momentum for network launch. • Started development of domesticated knowledge and advocacy materials, including website serving the dual purpose of project information tool as well as a RECP knowledge tool • As spin offs, (1) delivered RECP training for SMARTfish programme and supporting the preparation of fish sector specific RECP training modules; (2) delivered RECP training of trainers for SCORE trainers; and (3) delivered RECP inputs to MFCA training.
Output Work stream 2: RECP Implementation and Replication			

<p><u>Output 2.1:</u> Customized programme for implementation and replication of RECP methods, practices and technologies implemented and evaluated for three sectors of small scale industries (metal products, chemical products, food processing and textile sectors)</p>	<p>2.1.6. Implementation of RECP in ~12 demonstration companies each in four sectors (target ~50+ 'demonstration' enterprises)</p> <p>2.1.7. Development and promotion of group-based implementation/replication programme for three sectors (food, chemical and metals)</p> <p>2.1.8. Replication of RECP to at least 50 enterprises each for food, chemical and metal sectors, through 6 replication programmes for each of three sectors covering 6-10 enterprises per programme (target: ~150+ 'replication' enterprises)</p> <p>2.1.9. Assessed resource productivity, environment and economic benefits achieved by participating enterprises in four sectors</p> <p>2.1.10. 12-15 enterprise success stories of RECP implementation per sector (target: ~50 success stories)</p>	<ul style="list-style-type: none"> • Activity reports of CRECPI and ICPC • Annual reports of industry sector associations • RECP assessment reports for demonstration companies • Assessment reports on sector-level benefits • Enterprise success stories 	<ul style="list-style-type: none"> • Initial industry recruitment workshops delivered in Surabaya (17 Sept 2014), Medan (23 Sept 2014) and Bandung (7 Oct 2015) for respectively food and textile sectors • RECP assessments underway in 18 food companies (sugar (4) in E Java, palm oil (6) in N Sumatra and rice milling (8) in W Java) and 15 textile and garment industries (in W Java).
<p><u>Output 2.2:</u> Customized programme for implementation and replication of RECP practices, technologies and synergies implemented and evaluated for three industrial Zones (Batam, Makassar and Surabaya)</p>	<p>2.2.7. Implementation of RECP in 20-25 demonstration industries in each industrial park (target: 70+ demonstration enterprises)</p> <p>2.2.8. Community of Practice operational on RECP in each industrial park (target: ~100 'replication' enterprises)</p> <p>2.2.9. Resource use and waste/emission profile for each industrial park</p> <p>2.2.10. RECP synergies identified, evaluated and promoted</p> <p>2.2.11. Assessed resource productivity, environment and economic benefits of participating enterprises</p> <p>2.2.12. Booklet on each industrial park with enterprise- and park-level successes</p>	<ul style="list-style-type: none"> • Activity reports of CRECPI • Annual reports of industrial parks • RECP assessment reports for demonstration companies • Success booklets 	<ul style="list-style-type: none"> • Initial industry recruitment workshops delivered in Batam (18 Oct 2013, 21 Dec 2015 and 26 Feb 2016 and Makassar (4 Dec 2013 and 19 Sept 2014). • RECP assessments underway in 10 companies in Makassar industrial region (5 seafood, 2 seaweed, 2 metal products and 1 wood products) and 9 companies (spread over 4 industrial parks) in Batam (component manufacturing, consumer goods and heavy engineering).

<i>Output 2.3:</i> Customized programme for implementation and replication of RECP methods, practices and technologies implemented and evaluated in two tourist regions (tentatively Lombok and Yogyakarta)	<p>2.3.5. Implementation of RECP in 20 hotels and tourism enterprises in each region (target: 40+ demonstration enterprises)</p> <p>2.3.6. Thematic workshops and other learning activities delivered in each region, benefiting target of 100 'replication' enterprises</p> <p>2.3.7. Assessed cumulative benefits from promotion and implementation of RECP in region</p> <p>2.3.8. Booklet on each region with enterprise and region level successes</p>	<ul style="list-style-type: none"> • Activity reports CRECPI • Annual reports on tourism regions • Success booklets 	<ul style="list-style-type: none"> • Initial recruitment workshops delivered in Malang and Sleman (back to back on 29 Feb 2016) • RECP assessments underway in 18 tourism enterprises, including 10 hotels, 4 restaurants and 4 tourism villages
<i>Output 2.4:</i> Customized programme for implementation and replication of RECP methods, practices and techniques implemented and evaluated for two micro-sectors (tofu and silverware)	<p>2.4.5. RECP needs assessed for target sectors</p> <p>2.4.6. Appropriate RECP techniques developed and tested</p> <p>2.4.7. Appropriate RECP techniques implemented in some 200 micro-enterprises per sector</p> <p>2.4.8. Booklet on each micro-sector</p>	<ul style="list-style-type: none"> • Annual reports CRECPI • Published tools, benchmarks and guidelines • Independent final project evaluation 	<ul style="list-style-type: none"> • Preparatory efforts underway, to start RECP demonstrations in palm sugar sector (in C Java) and thereafter in pottery or coffee sectors (in either Western or Eastern Nussa Tenggara)
Output Work stream 3: RECP Policy and Regulatory Framework			
<i>Output 3.1:</i> RECP Methods, practices and (policy) instruments promoted for realization of aims and objects of 10SCP and related industrial environmental management policies and strategies	<p>3.1.3. (Environmental) Policy assessment report</p> <p>3.1.4. Completion of RECP policy pilots with regional environmental authorities (2)</p>	<ul style="list-style-type: none"> • Policy assessment report • Records of stakeholders' consultations • Activity reports of ICPC 	<ul style="list-style-type: none"> • Preliminary policy assessment undertaken, and inputs provided to multiple MoEF consultations related to EMS, SCP and PROPER.

<u>Output 3.2:</u> RECP methods, practices and (policy) instruments promoted for realization of aims and objectives of GIR and related environmental technology policies and strategies	3.2.3. (Industry) Policy assessment report 3.2.4. RECP related standards and/or certification for industry sectors and industrial parks.	<ul style="list-style-type: none"> • Policy assessment report • Minutes of consultation meetings • Issuance of relevant sector and/or industrial park standards and/or certification • Activity reports of CAGIE 	<ul style="list-style-type: none"> • Preliminary policy assessment undertaken • Delivered awareness workshop for staff of Mol (3 Sept 2015) • Delivered RECP and GI policy training for representatives of Mol divisions and of affiliated technical centres (20-22 April 2016) • Contributed to evaluation of 2015 GI Awards, revision of 2016 GI Award criteria, development of GI sector standards, GI roadshows/seminars (19, 24 and 27 Nov 2015 and 13, 16 and 20 May 2016) and GI Assessors Trainings (3-6 Nov 2015 and 24-27 May 2016)). • Supported presentation of Indonesian GI policy experience during the 4th UNIDO GI Conference (Ulsan 28-30 June 2016)
<u>Output 3.3:</u> RECP methods, practices and (policy) instruments promoted for realization of aims and objectives of the government's industrial energy efficiency and resource efficiency strategies and initiatives	3.3.2. RECP action agenda for industrial energy efficiency prepared for MoEMR	<ul style="list-style-type: none"> • Action agenda for promotion of industrial (energy) efficiency through RECP implementation 	<ul style="list-style-type: none"> • Not yet started
<u>Output 3.4:</u> RECP methods, practices and (policy) instruments promoted for realization of the aims and objectives of the governments (green) tourism strategies and initiatives	3.4.2. RECP action agenda for (green) tourism prepared for MoT	<ul style="list-style-type: none"> • Action agenda for promotion of (green) tourism through RECP implementation 	<ul style="list-style-type: none"> • Provided inputs to stakeholder consultations on sustainable tourism standardization • Delivered RECP introduction during kick off meeting for 20 pilot sustainable tourism destinations (28-30 Jan 2016) • Delivered national RECP training for sustainable tourism facilitators of 20 tourism destinations (6-7 Sept 2016)
Output Work stream 4: RECP Technology and Innovation			

Output 4.1: Appropriate RECP technologies for process innovations in particular for small scale industry sectors identify, using GC&E principles and practices, and promoted for implementation and investment	4.1.4. Establishment of GC&E knowledge hub (at CRECPI) 4.1.5. GC&E applied to environment and technology needs of food and chemical sectors 4.1.6. Minimum of five innovative processes/techniques evaluated and promoted for implementation	<ul style="list-style-type: none"> Activity reports of CRECPI Innovation GC&E case studies 	<ul style="list-style-type: none"> Not yet started
Output 4.2: Appropriate RECP technologies for collective resources synergies in industrial zones identified, using IS practices and techniques, and promoted for implementation and investment	4.2.4. IS knowledge base established at CRECPI 4.2.5. IS concepts applied to three industrial zones 4.2.6. Promotion of IS based synergy projects for implementation and investment (target 15)	<ul style="list-style-type: none"> Activity reports of CRECPI Innovative Industrial Symbiosis case studies 	<ul style="list-style-type: none"> Not yet started Contributed to EIP 2015 Conference by WBG (26-27 Oct 2015) and UNIDO-GEF EIP Expert Group Meeting (29-30 Sept 2016)
Output 4.3: Appropriate RECP technologies for sustainable product innovation identified, through application of C2C criteria and solutions, and promoted for implementation and investment	4.3.3. C2C knowledge base established at CTB 4.3.4. C2C concepts applied at some 4 textile enterprises	<ul style="list-style-type: none"> Activity reports of CTB C2C product innovations developed and promoted 	<ul style="list-style-type: none"> Delivered first International Environmental Technology Workshop (26-27 Sept 2016)
Output Work stream 5: RECP Investment and Finance			
Output 5.1: Existing financial instruments available for financing RECP investments by target enterprise groups reviewed and gaps identified and evaluated	5.1.2. Financing opportunities and challenges mapped	<ul style="list-style-type: none"> Activity reports of CRECPI Financing Assessment report released 	<ul style="list-style-type: none"> Not yet started
Output 5.2: Proposals for financial instruments for fostering RECP investments developed, evaluated and promoted for implementation to financial institutions	5.2.3. Proposed financing instruments and their uptake by financial institutions 5.2.4. Investment volume created by financing instruments and economic and environmental benefits achieved	<ul style="list-style-type: none"> Activity reports of CRECPI Reports of collaborating financial institutions 	<ul style="list-style-type: none"> Not yet started
Output 5.3: Newly introduced and continued financial instruments available for financing of RECP investments by target enterprise groups reviewed and (remaining) gaps identified and evaluated	5.3.3. Updated inventory of financial instruments 5.3.4. Lessons learned, conclusions and recommendations for RECP Investment and Finance	<ul style="list-style-type: none"> Inventory/analysis report published Activity reports of CRECPI 	<ul style="list-style-type: none"> Not yet started

Table 2: Overview of key performance indicators by output

Outcome	Outputs	Expected Results and KPIs	Achievements as per end September 2016
1. RECP Capacity and Network	1.1 RECP service delivery capacity	1. 6 training and coaching programmes delivered for national experts in RECP assessment, completed by at least 75 experts	• Training component completed for 5 groups by 59 experts; coaching component ongoing
		2. 4 short term trainings delivered on advanced RECP topics	• Not yet started
		3. 4 institutions operating as RECP service provider (CRECPI, ICPC, CADGIE and CTB)	• 4 institutions operating as RECP service providers within the programme
	1.2 RECP network development	1. NRECPI operating as per charter with active membership of >25 national entities	• Charter under development with split modality for RECP experts (individuals) and multi-stakeholder forum
	1.3 RECP advocacy and knowledge management	1. 3 national conferences (⁵⁷)	• 3 regional consultations and 2 sector dialogues completed
		2. RECP integrated in award schemes of Mol and MoEF	• First modification made in GI award scheme of Mol
		3. Domesticated primer on RECP for Indonesian enterprises	• Stalled
		4. Plain language information materials with results for 11 industry groups covered	• Not yet started
		5. Minimum of 25 awareness seminars covering at least 10 locations around Indonesia (⁵⁸)	• 11 delivered in 7 locations
		6. Internet based knowledge platform operational for advancing and disseminating RECP information and knowledge in Indonesia	• Prototype website developed
2. RECP Implementation & Replication	2.1 Small Scale Industries (textile, food, metal and chemical)	1. RECP implemented and resource efficiency and pollution intensity benefits documented for ~12 enterprises per sector, total ~50 Small Scale Industries	• RECP assessment underway in 32 enterprises covering 2 sectors (food and textile), with initial implementation
		2. RECP options replicated to at least 50 enterprises per for food, metal and chemical sectors, total >150 Small Scale Industries	• Not yet started
	2.2 Industrial Zones (Batam, Makassar and Surabaya)	1. RECP implemented and resource efficiency and pollution intensity benefits documented for ~25 enterprises per zone, total ~75 industries	• RECP assessment underway in 19 enterprises covering 2 zones (Makassar and Batam), with initial implementation
		2. Active communities of RECP practice operating in each zone involving 30-40 enterprises per zone, total 100+ enterprises	• Not yet started
		3. Collective RECP/IS options developed and promoted in all 3 zones	• Not yet started
	2.3 Tourism Sector (Sleman/Magelang and Lake Toba)	1. RECP implemented and resource efficiency and pollution intensity benefits documented for 20+ hotels/tourism enterprises in each region, total >40 enterprises	• RECP assessment underway in 18 hotels/tourism enterprises covering one region (Sleman/Magelang)

⁵⁷ PMC approved on 16 Dec 2015 the substitution of first national conference by 4-5 regional dialogues and six sector dialogues

⁵⁸ Includes one day introductory training for enterprises

Outcome	Outputs	Expected Results and KPIs	Achievements as per end September 2016
		2. RECP options replicated to at least 50 enterprises per region total >100 tourism enterprises	• Not yet started
	2.4 Micro Enterprises	1. Appropriate RECP techniques identified and promoted to 100 micro-enterprises per sector, total > 200 micro-enterprises	• Not yet started
3. RECP Policy and Regulatory Framework	3.1 RECP in SCP policy	1. RECP action plan for MoEF developed and promoted	• Actions identified and underway: PROPER rating; training and AMDAL integration
		2. Regional trials on RECP through industrial environmental management in at least 3 regions	• Not yet started
	3.2 RECP in GI policy	1. RECP action plan for MoI developed and promoted	• Actions implemented: GI policy training; GI assessors training; industry outreach; facilitation of GI standards and/of GI Award
		2. RECP standards developed for 4 sectors and industrial parks	• 4 GI standards developed and launched with input from project
	3.3 RECP in IRE policy	1. RECP action agenda for MoEMR developed and promoted	• Not yet started
	3.4 RECP in GT policy	1. RECP action plan for MoT developed and promoted	• Actions implemented: RECP training for sustainable tourism destination facilitators
4. RECP Technology and Innovation	4.1 Green Chemistry and Engineering	1. GC&E knowledge hub established and operational (at CRECPI)	• Not yet started, contingent on completion of first round of RECP assessments in food sector
		2. GC&E process innovations identified and evaluated for food and chemical sectors	• Not yet started
		3. Minimum of 5 innovation projects developed and promoted for implementation	• Not yet started
	4.2 Industrial Symbiosis	1. IS knowledge hub established and operational (at CRECPI)	• Not yet started, contingent on completion of first round of RECP assessments in two regions
		2. IS projects identified and evaluated for three industrial zones	• Not yet started
		3. Minimum of 10 IS projects developed and promoted for implementation	• Not yet started
	4.3 Cradle to Cradle	1. C2C knowledge hub established and operational (at CTB)	• Environmental Technology Workshop delivered
		2. C2C applied at 4 textile enterprises	• Not yet started
5. RECP Investment and Financing	5.1 RECP financing gap assessment	1. Report published	• Not yet started
	5.2 Financial Instruments	1. Consultative roundtable with financial institutions launched	• Not yet started
		2. Supported launch of some 2 new RECP conducive financing instruments	• Not yet started
	5.3 Financing impact	1. Report published	• Not yet started

Table 3: Overview of main events in the project up to September 2016

Project Activities				
Date	Location	Partner	# participants	Description
2012				
5 Jun 2012	Jakarta	UNIDO, MoEF	40 (*)	Project launch and signing ceremony for project document
2013				
18 Oct 2013	Batam	CRECPI	20 (*)	Industry awareness seminar
25 Oct 2013	Bandung	CRECPI, CTB, ICPC	12 (*)	Inception workshop with national partners
4 Dec 2013	Makassar	CRECPI	60	Industry awareness seminar
2014				
13 Jun 2014	Bandung	CRECPI	22	Opening of CRECPI
16-17 Jun 2014	Bandung	CRECPI, CTB, ICPC	18 (*)	Introductory RECP training for national implementing partners
17 Sept 2014	Surabaya	CRECPI	15	RECP information meeting for candidate national experts and demonstration companies
19 Sept 2014	Makassar	CRECPI	35	RECP information meeting for candidate national experts and demonstration companies
23 Sept 2014	Medan	CRECPI	21	RECP information meeting for candidate national experts and demonstration companies
29 Sept – 1 Oct 2014	Bandung	CRECPI	23	Training in RECP Methods and Techniques (part 1) for national experts for undertaking RECP assessments in good processing sector
6-8 Oct 2014	Makassar	CRECPI	20	Training in RECP Methods and Techniques (part 1) for national experts for undertaking RECP assessments in Makassar
2015				
3-5 Aug 2015	Surabaya	CRECPI	6	Continued RECP training (part 2) for national experts, undertaking RECP assessments in sugar industry
10 Aug 2015	Makassar	CRECPI	25 (*)	Awareness seminar on RECP for fisheries sectors, in cooperation with SMART Fish project
11-13 Aug 2015	Makassar	CRECPI	11	Continued RECP training (part 2) for national experts, undertaking RECP assessments in Makassar region
3 Sept 2015	Jakarta	CADGIE	3	Introductory workshop on RECP for Green Industry for staff of MoI
9-11 Sept 2015	Medan	CRECPI	11	Continued RECP training (part 2) for national experts, undertaking RECP assessments in palm oil sector
11 Sept 2015	Medan	CRECPI	24	Awareness seminar on RECP for palm oil sector
22 Sept	Karawang	CRECPI	42	Awareness seminar on RECP for rice milling sector
5-6 Oct 2015	Bandung	CRECPI	11	Continued RECP training (part 2) for national experts, undertaking RECP assessments in rice milling sector
7 Oct 2015	Bandung	CTB	45	Awareness seminar on RECP for textile sector
19-21 Oct 2015	Bandung	CTB	23	Training in RECP Methods and Techniques (part 1) for national experts for undertaking RECP assessments in textile sector
16 Nov 2015	Surabaya	CRECPI	4	Review meeting on RECP assessments in sugar sector
17 Nov 2015	Jakarta	ICPC	43	Business consultative forum on RECP
20 Nov 2015	Makassar	CRECPI	15	Review meeting on RECP assessments in Makassar region

16 Dec 2015	Jakarta	CTB	10	RECP awareness workshop for H&M suppliers in Indonesia
21 Dec 2015	Batam	CRECPI	45	RECP awareness workshop stakeholders in Batam
2016				
15 Jan 2016	Medan	CRECPI	6	Review meeting on RECP assessments in palm oil mills
3 Feb 2016	Batam	CRECPI	16	RECP awareness workshop in Kabil Integrated Industrial Estate
3 Feb 2016	Batam	CRECPI	30	RECP awareness workshop in Panbil Industrial Estate
12 Feb 2016	Bandung	CRECPI	7	Review meeting on RECP assessments in rice mills
17-18 Feb 2016	Bandung	ICPC	35	Experts consultation workshop on RECP domestication and networking
22 Feb 2016	Batam	CRECPI	12	RECP awareness workshop in Tunas Industrial Estate
22-26 Feb 2016	Batam	CRECPI	32	Training in RECP Methods and Techniques (part 1) for manufacturing sectors for national experts in Batam
26 Feb 2016	Batam	CRECPI	33	Launch of RECP demonstrations in four industrial parks and 10 companies on Batam Island
29 Feb 2016	Magelang	CRECPI, MoEF, MoT	52	Launch of RECP demonstration for tourism sector in Magelang
29 Feb 2016	Sleman		51	Launch of RECP demonstration for tourism sector in Sleman
29 Mar – 1 Apr 2016	Sleman	CRECPI	30	Training in RECP Methods and Techniques (part 1) for tourism sector for national experts from Magelang and Sleman
11 Apr 2016	Makassar	ICPC	54	Regional RECP Business Consultation for South Sulawesi
13 Apr 2016	Bandung	ICPC	64	Regional RECP Business Consultation for West Java
14 Apr 2016	Bogor	ICPC	69	RECP Sector Dialogue for Food and Beverage Sector
20-22 Apr 2016	Cikarang	CADGIE	37	RECP and GI Policy Training for staff of MoI and affiliated centres
11 May 2016	Medan	ICPC	45	Regional RECP Business Consultation for North Sumatra
13 May 2016	Tangerang	CADGIE	32	RECP module at GI Outreach Seminar
16 May 2016	Cirebon	CADGIE	29	RECP module at GI Outreach Seminar
17-19 May 2016	Bandung	CTB	14	Training in RECP Methods and Techniques (part 2) for textile sector for national experts
20 May 2016	Makassar	CADGIE	35	RECP module at GI Outreach Seminar
24 May 2016	Semarang	ICPC	55	RECP Sector Dialogue for Textile and Garment Sector
25 May 2016	Jakarta	CADGIE	24	Delivery of cement and textile modules in GI Assessors Training
30 May – 1 June 2016	Batam	CRECPI	19	Training in RECP Methods and Techniques (part 2) for manufacturing sectors for national experts in Batam
20&24 Jun 2016	Medan	CRECPI	24	Review Workshop on RECP in palm oil mills
1 Aug 2016	Sleman	CRECPI, MoT	15	Introductory training on RECP methods and techniques for tourism enterprises
2 Aug	Magelang	CRECPI,	20	Introductory training on RECP methods and techniques

2016		MoT		for tourism enterprises
3-4 Aug 2016	Magelang	CRECPI, MoT	43	Training in RECP Methods and Techniques (part 2) for tourism sectors for national experts in Sleman and Magelang
31 Aug 2016	Bandung	CTB	14	Review meeting on RECP assessments in textile and garment sectors
1 Sept 2016	Karawang	CRECPI	15	Implementation workshop for RECP in rice milling sector
5 Sept 2016	Bandung	CTB	35	Introductory training on RECP methods and techniques for textile and garments sectors
6-7 Sept 2016	Serpong	CRECPI, MoT	72	Introductory training on RECP methods and techniques in tourism enterprises for Sustainable Tourism Development Facilitators
22 Sept 2016	Makassar	CRECPI	35	Introductory training on RECP methods and techniques for Makassar region
26-27 Sept 2016	Bandung	CTB	75	International Environmental Technology Workshop for the textile and garment sectors

Networking, Outreach and Partnership Activities			
Date	Location	Organizer	Description
2013			
16-18 Apr 2013	Hanoi (Vietnam)	RECPnet/ UNIDO	Participation of representative of ICPC and CRECPI in foundation meeting of Asian Chapter of RECPnet
2-6 Sept 2013	Montreux (Switzerland)	RECPnet/ UNIDO	Participation of representative of ICPC and CRECPI in 3rd global RECP conference and 2nd RECPnet Members' Assembly
2014			
19-21 May 2014	Bangkok (Thailand)	APRSCP/ UNIDO	Participation of representative of ICPC and CRECPI in Asian Chapter of RECPnet and 11th Asia Pacific SCP Roundtable
2-3 Oct 2014	Denpasar	ASEAN	Contribution to 7th ASEAN SCP Leadership Programme (with MoE)
24 Oct 2014	Cikarang	PU	Contribution to celebration of UN day at President University
2015			
9-10 Feb 2015	Phnom Penh (Cambodia)	UNIDO	ASEAN regional expert meeting on Green Industry Policy with participation of representatives of ICPC, CADGIE and CRECPI
24-28 Aug 2015	Jakarta	APO	Delivery of RECP session for regional workshop on Material Flow Cost Accounting (MFCA) organized by APO, and launch of national MFCA forum (CTA)
26 Aug 2015	Bandung	ITB	Contribution to joint environmental research workshop on low carbon industrial development of NIES (Japan) and ITB
12-16 Oct 2015	Davos, Switzerland	RECPnet	Participation in 4 th Global RECP Networking Conference (with delegation of CRECPI and ICPC)
17 Oct 2015	Semarang	UNDIP	Delivery of RECP session for Seminar on Development of SCP to Create Environmental Friendly-Products
20-22 Oct 2015	Padang	CADGIE	Green Industry Training for small scale food producers
22-23 Oct 2015	Kuala Lumpur, Malaysia	ASEAN	Delivery of RECP session for ASEAN+3 Leadership Programme on SCP
26-27 Oct 2015	Seoul, Korea	WBG	Participation in Eco-Industrial Park 2015 conference of World Bank Group and Korean Industrial Complexes Corporation
28-29 Oct 2015	Kuala Lumpur, Malaysia	CAN	Participation in Responsible Business Forum of the ASEAN CSR Network (ACN)
3-6 Nov 2015	Jakarta	CADGIE/MoI	Contributions to Green Industry Assessors training, organized by CAGIE
17, 25 and	Karawang	CADGIE	Contributions to the Green Industry roadshow

Networking, Outreach and Partnership Activities			
Date	Location	Organizer	Description
27 Nov 2015	(19 th), Lampung (25 th) and Tangerang (27 th)		presentations, organized by the Ministry of Industry and CAGIE
24-25 Nov 2015	Bandung	ITB	Contribution to the 5 th Environmental Technology and Management Conference
11 Dec 2015	Bogor	ILO	RECP training session for SCORE national trainers
17 Dec 2015	Jakarta	IBL	Participation in Action Forum for Responsible Business Indonesia, organized by IBL
2016			
21 Jan 2016	Jakarta	SMARTfish	Guest lecture on RECP at Jakarta Fisheries University
26 Jan 2016	Flores	SMARTfish	RECP training module for Tuna Pole and Line Sector
29-30 Jan 2016	Jakarta	MoT	Contribution to kick off meeting of STD pilot programme of MoT, including delivery of RECP introduction
5 Apr 2016	Jakarta	SMARTfish	RECP presentation during CEO Briefing on Productivity, Sustainability and Innovation in Fisheries sectors
8-9 Apr 2016	Surabaya	SMARTfish	RECP training of industry partners of SMARTfish project
15 Apr 2016	Jakarta	CADGIE	RECP Presentation during Green Industry Forum at 2016 Climate Change Education Exhibition
25 Apr 2016	Jakarta	MoMM	Delivery of RECP Module for National Training on Material Flow Cost Accounting (MFCA)
26-27 Apr 2016	Jakarta	MoT	Participation in national coordination meeting for STD pilot programme of MoT
13-16 Jun 2016	Jakarta	ILO, MoMP	RECP training of trainers for ILO SCORE Trainers
28-30 Jun 2016	Ulsan (Rep of Korea)	UNIDO	Participation in 4 th UNIDO Green Industry Conference (with CADGIE Delegation)
12-14 Jul 2016	Siem Reap (Cambodia)	UNIDO	Participation in the 12 th Asia Pacific Roundtable on Sustainable Consumption and Production (APRSCP) and 2016 Asia Pacific Regional Chapter Meeting of the RECP Network (with delegation of ICPC and CRECPI)
19 July 2016	Denpasar	MoEF	Participation in national coordination meeting on PROPER programme (with ICPC delegation)
20-22 July 2016	Singapore	CAN	Contribution to Sustainable Consumption and Production panel during ASEAN Responsible Business Theory meets Practice Conference of the ASEAN CSR Network (ACN)
29-30 Aug 2016	Jakarta	SMARTFish	RECP training for master trainers of VALCAP Fish and fishery extension services
29-30 Sept 2016	Hoi An (Viet Nam)	UNIDO	Participation in the international Expert Group Meeting on Eco-Industrial Parks

Annex 6 – Maps and figures



Figure 1.1: Map of Indonesia with places visited by the Mid-Term Evaluation Team marked

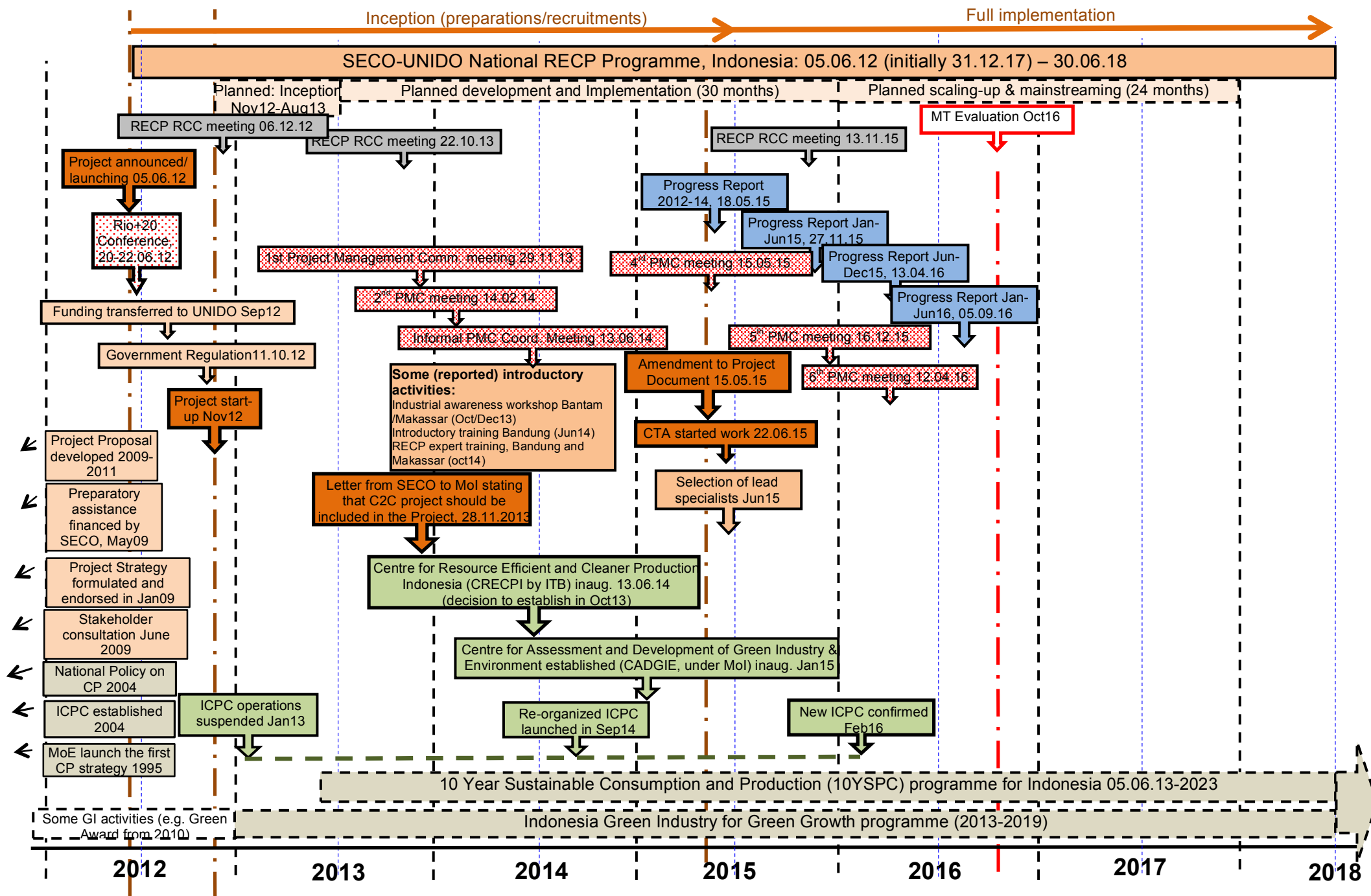


Figure 1.2: Key milestones in the RECP Project (illustration by the Evaluation Team)

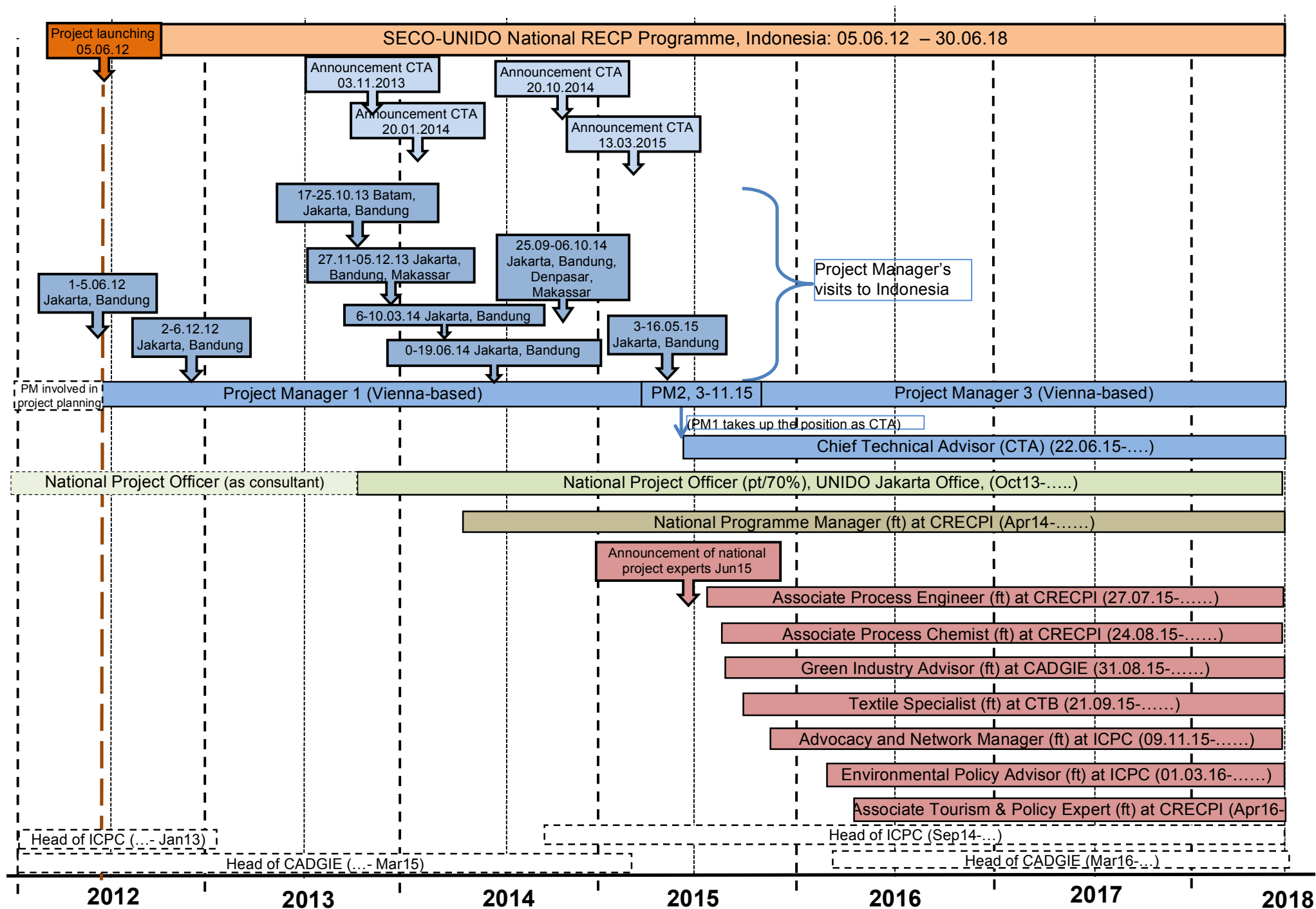
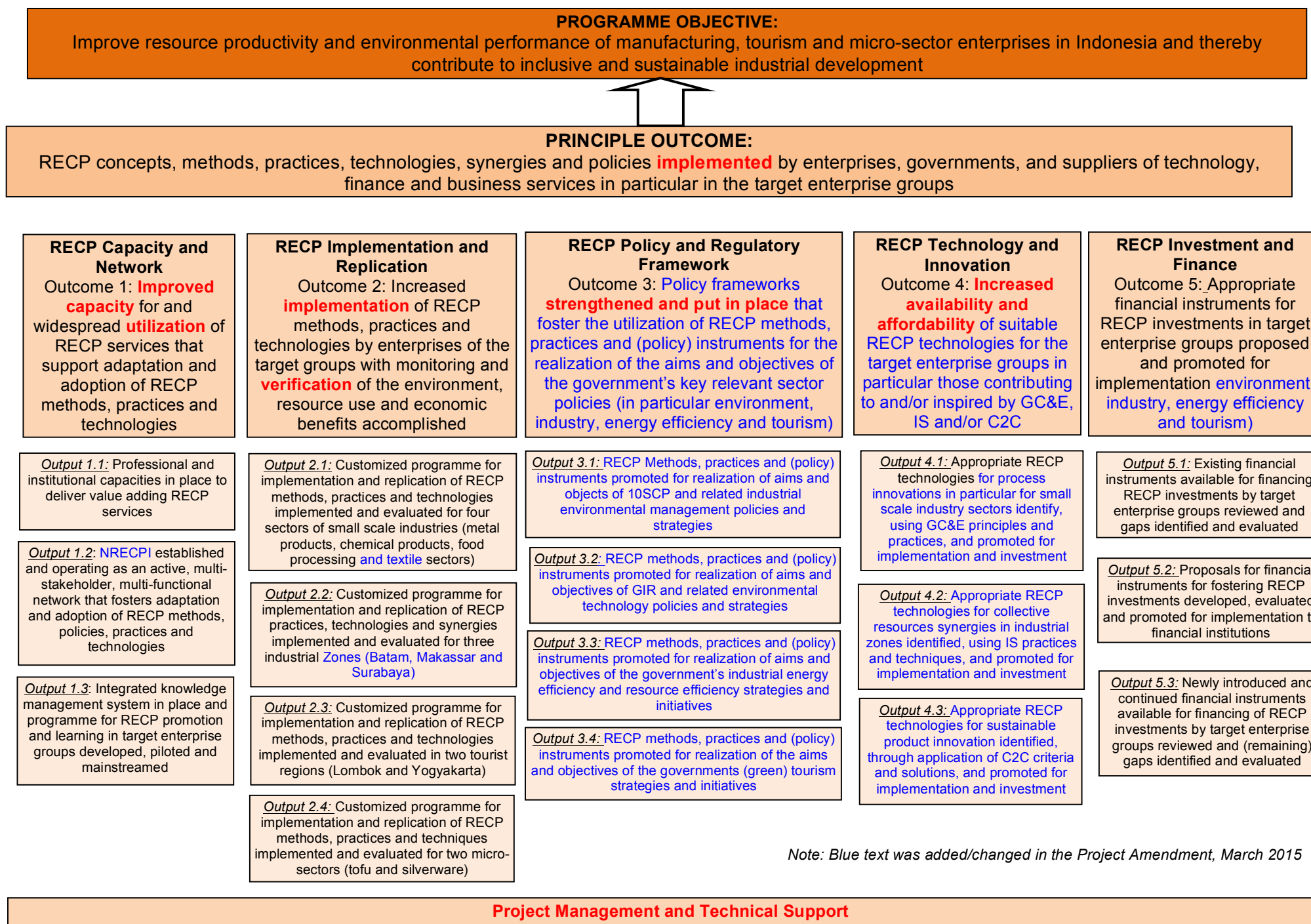


Figure 1.3: Timeline of the UNIDO staff employed by the Project (illustration by the Evaluation Team)



Note: Blue text was added/changed in the Project Amendment, March 2015

Figure 1.4: RECP Project logframe (illustration made by Evaluation Team)

Note: pt= part time, ft= full time
 Project Management Team shown as Project Manager
 Chart reflects situation primo October 2016

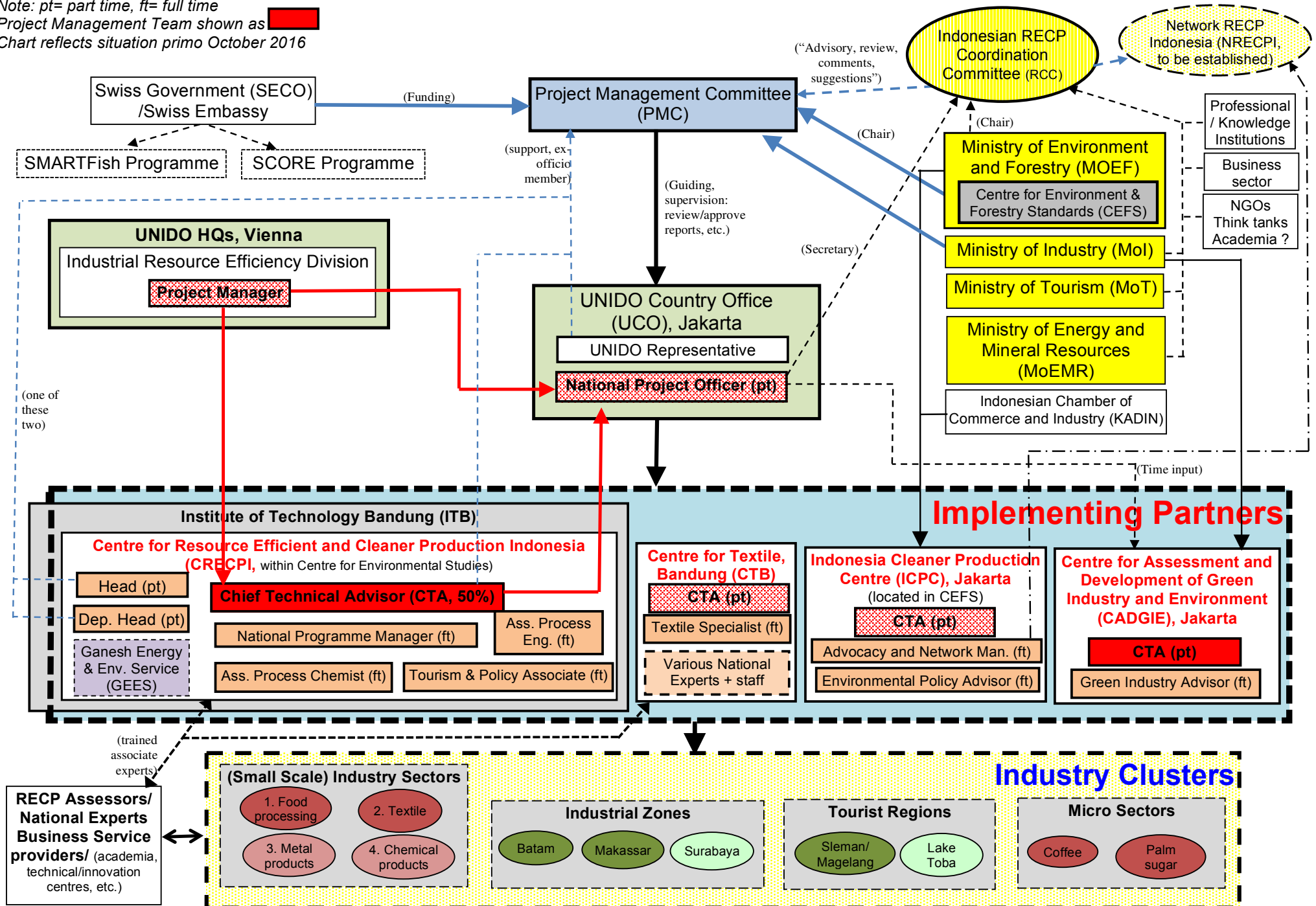


Figure 1.5: The Project arena, stakeholders and inter-connections (illustration by the Evaluation Team)

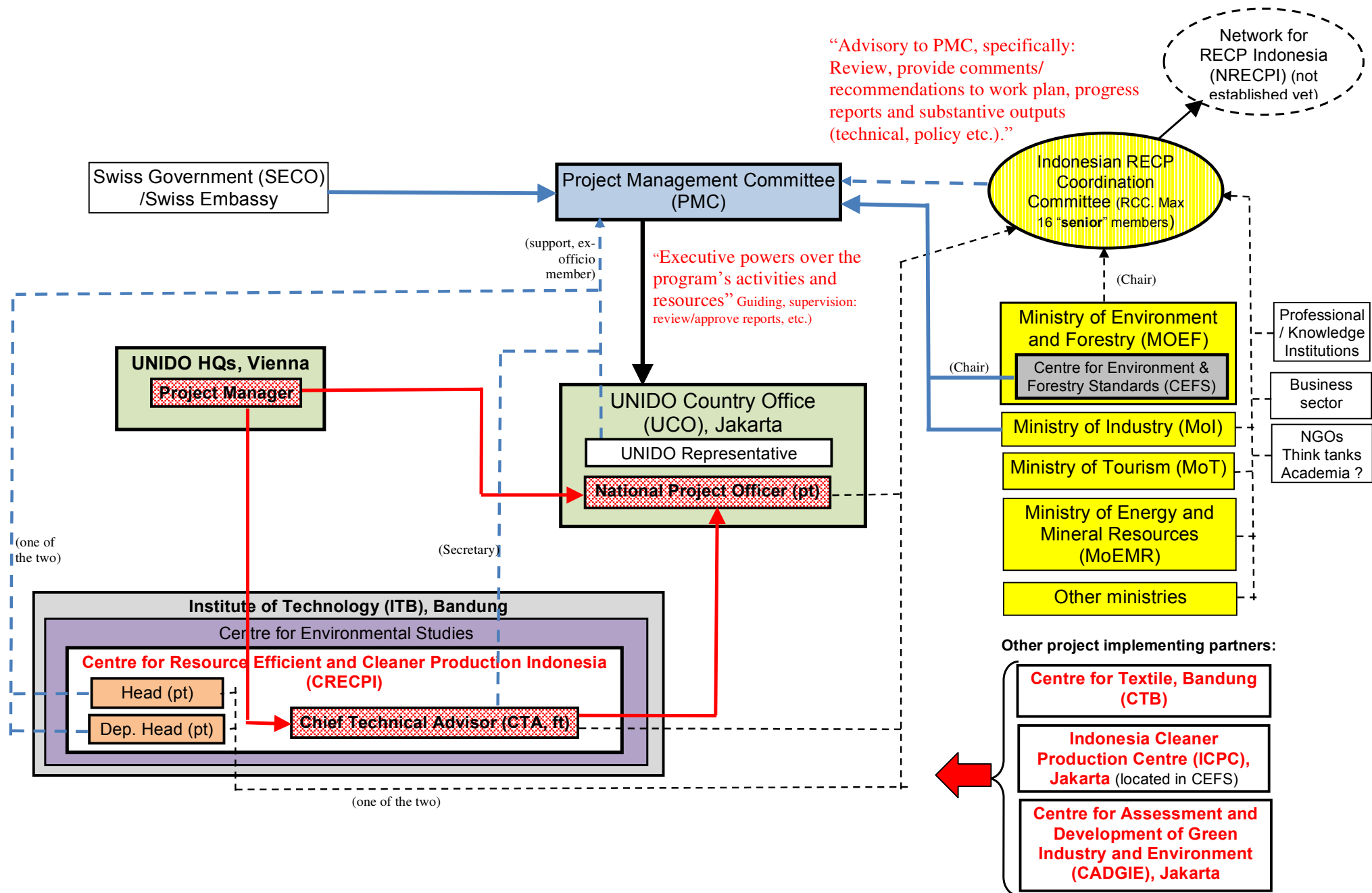


Figure 1.6: Managerial set-up of the RECP Project as per Project Document (illustration by the Evaluation Team)

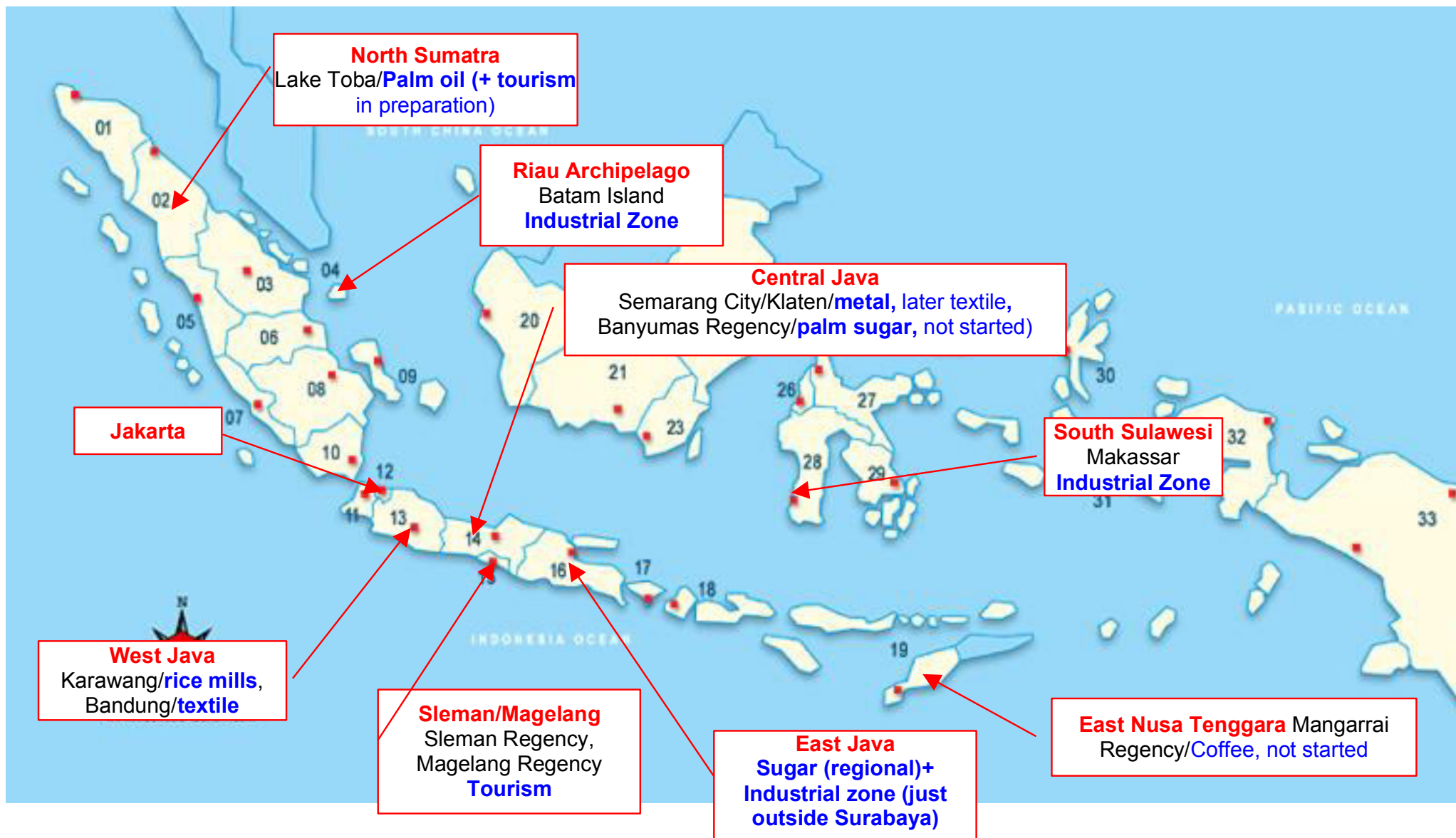


Figure 1.7: Geographical spread of the RECP Project activities and industrial clusters participating (illustration by the Evaluation Team)

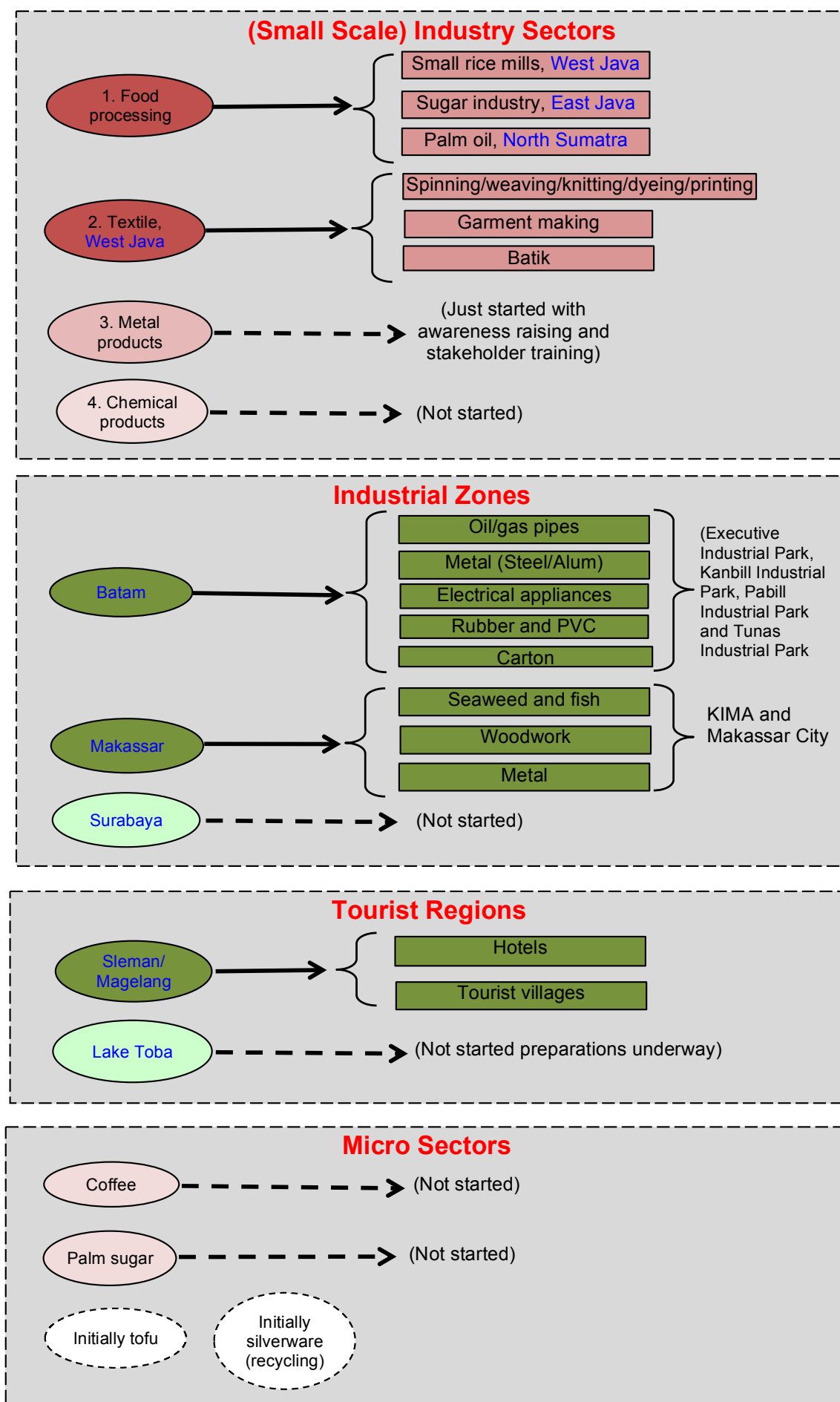


Figure 2.1: RECP Project scope and planned strategy related to industrial cluster (illustration by the Evaluation Team)

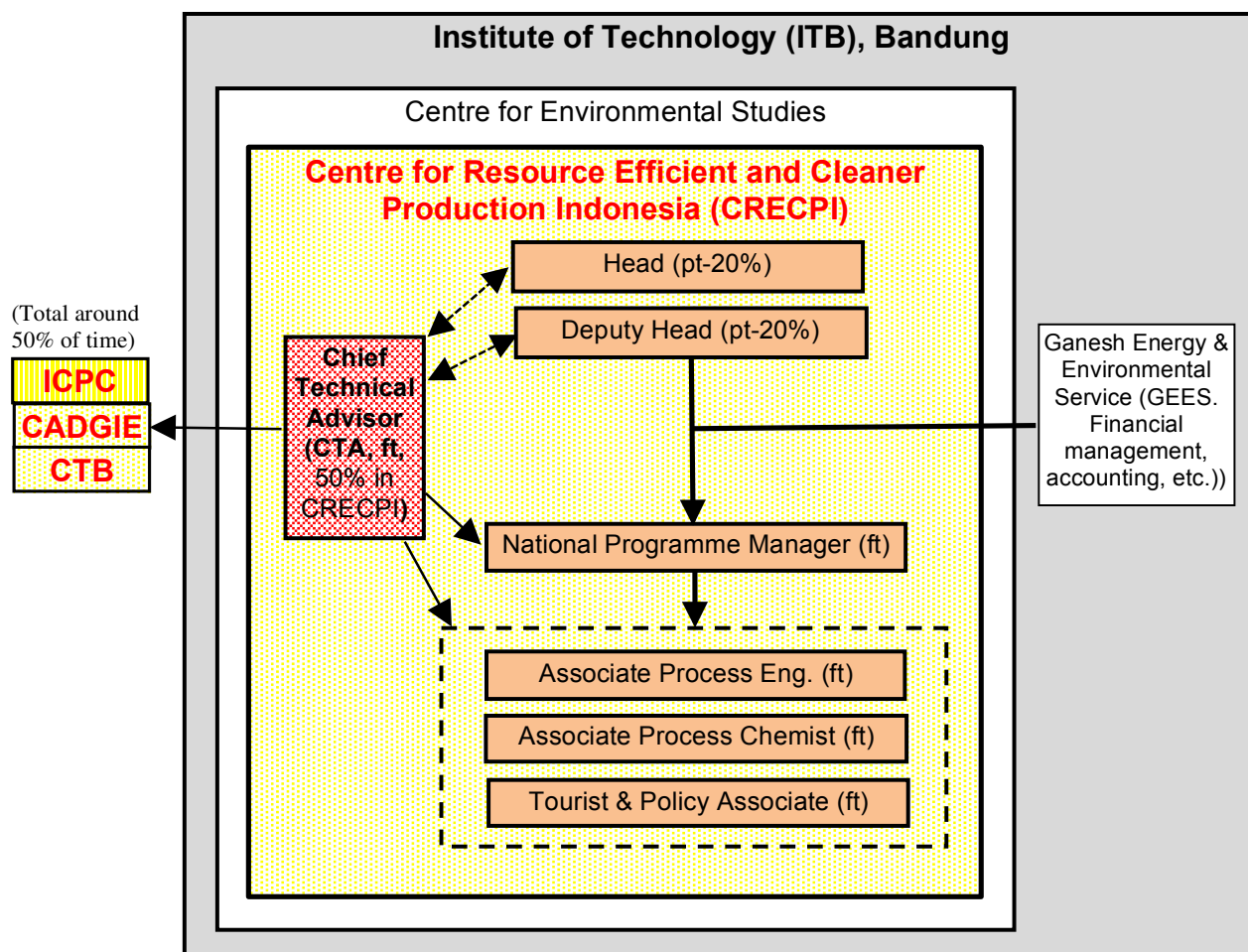


Figure 2.2: Organisation chart of Centre for Environmental Studies and Cleaner Production Indonesia (CRECPI) (illustration by the Evaluation Team)

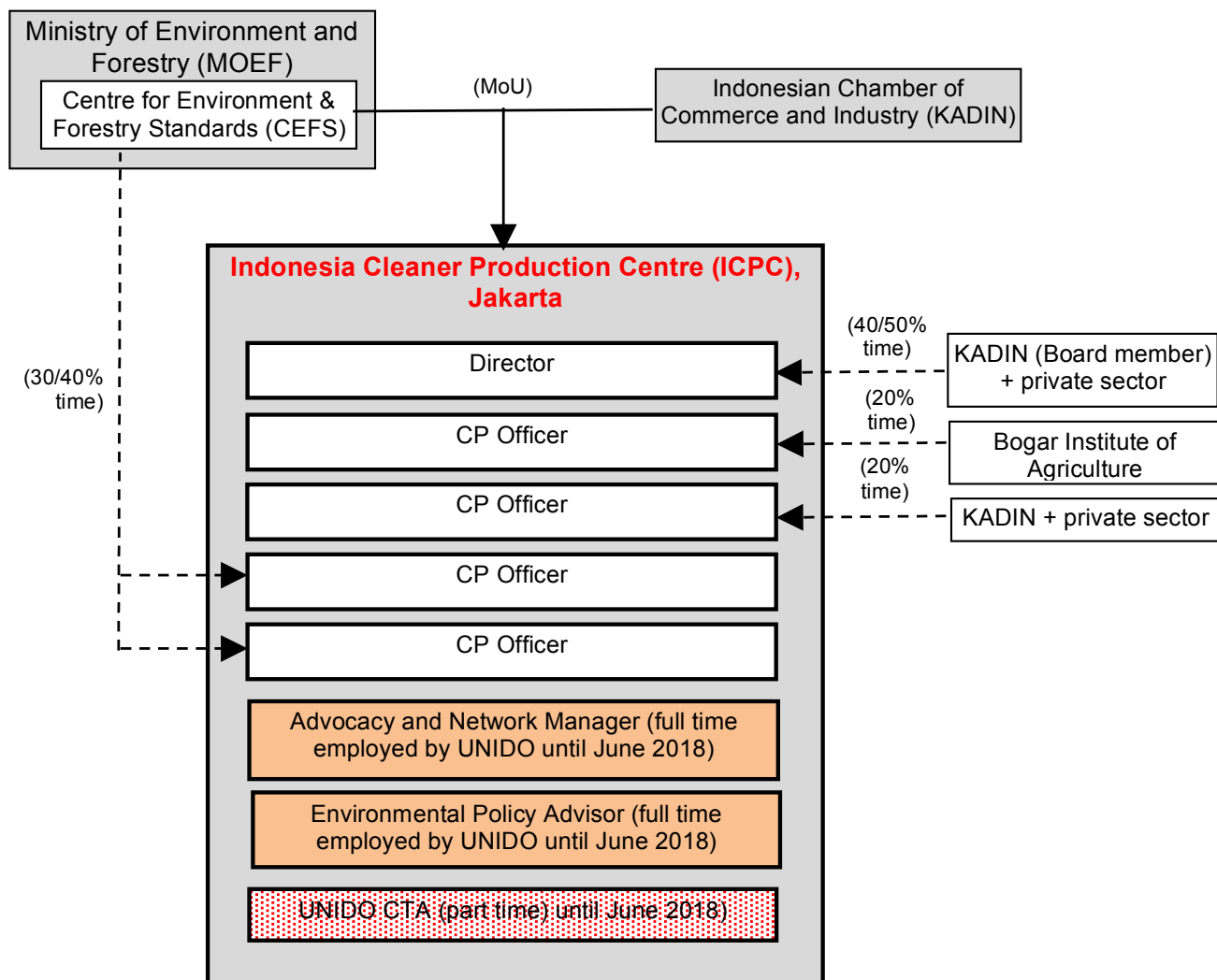


Figure 2.3: Organisation chart of Indonesia Cleaner Production Centre (ICPC) (illustration by the Evaluation Team)

No.	Name	Title and Organization
1	Mr. Noer Adi Wardoyo	Director, Centre of Environmental and Forestry Standardization, MOEF
2	Ms. Diahwati	Staff, Centre of Environmental and Forestry Standardization, MOEF
3	Ms. Amelia	Staff, Centre of Environmental and Forestry Standardization, MOEF
4	Mr. Philip ISCHER	Global RECP Manager, SECO Bern, Switzerland
5	Mr. Martin Stottele	Head of Economic Development Cooperation/SECO Jakarta, Switzerland Embassy in Jakarta;
6	Ms. Dewi Suyenti Tio	National Programme Officer, Economic Development Cooperation (SECO) Jakarta/Switzerland Embassy
7	Ms. Yulia Ariyani Putri	Head, Section of UNIDO Cooperation, DitGen of International Industrial Cooperation, MOI
8	Ms. Fikra Sufi H	Staff, DitGen of International Industrial Cooperation, MOI
9	Mr. Hamzah	Special Staff, Directorate General of International Industrial Cooperation, MOI
10	Ms. Rizki	Center for Agency of Development of Green Industry and Environment, MOI
11	Associates Prof. Dr. Puji Lestari	Institute Teknologi Bandung(ITB)/CRECPI
12	Mr. Christian Susan	RECP Project Manager, UNIDO Vienna, Austria
13	Mr. Rene Van Berkel	CTA, RECP Programme Indonesia
14	Mr. Nahrudin Alie	NPO, RECP Programme Indonesia

No.	Name	Title and Organization and Email
1	Mr. Noer Adi Wardoyo	Director, Centre for Environment and Forestry Standards, MOEF
2	Mr. Martin Stottele	Head of Economic Cooperation, Embassy of Switzerland in Indonesia
3	Mr. Rene Van Berkel	CTA, RECP Programme Indonesia
4	Mr. Adzhar Fitri	Head, Division of Multilateral, Dept of Multilateral and Region III, MOI Jakarta
5	Mr. Willy Fandry	Staff, CAGIE, MOI
6	Mr. Hamzah	Expert Staff, MOI
7	Ms. Yulia Putri	Staff, DEp of IIC Multilateral and Region III, MOI
8	Dr. Puji Lestari	Deputy Head, CRECPI, ITB Bandung
9	Ms. Winiati (Wiwin)	Staff, CBT (Textile Centre), MOI, Bandung
10	Ms. Diah Wati	Staff, Centre for Environment and Forestry Standards, MOEF
11	Dr. Juwari	Institute Teknologi 10 November Surabaya (ITS)
12	Mr. Nahrudin Alie	NPO, UNIDO Indonesia
13	Mr. Harris Fadillah	Green Industry Advisor, CAGIE/UNIDO
14	Ms. Marti Yusnida	Advocacy and Networking Manager, ICPC/UNIDO

Figure 2.4: List showing the participants in the 6th Project Management Committee (PMC) meeting (top) and the 3rd RECP Coordination Committee (RCC) meeting (yellow shading by the Evaluation Team)

Annex G: Comments to the Draft Report ⁵⁹

Comments from the CTA.

Comments, related to factual errors and misunderstandings, presented in the draft (version 17 November 2016) of the Mid Term Evaluation Report.

Page 2

3rd para, 4th line debriefing in Vienna on 4 November, not 4 October

Final para, 3rd line, the NPM did not accompany the team. The team was accompanied by different project staff members, organized and facilitated by NPM

Page 3

BAPEDAL does no longer exist, it was merged in Min of Environment (now Min of Environment and Forestry) before launch of project in 2012. At the local level, integration is not yet fully complete, so BEPEDAL still exists in e.g. Batam

Page 4

Remove UNICEF, they are not a stakeholder or party to the project

Page 6

2nd para. There are no NE/Associate Assessors based in Jakarta. The respective meeting in Jakarta was with project staff seconded to implementing partners, CADGIE and ICPC

5th para, 5th line. The equivalent of main outcome is principal outcome, not principle outcome. This grammatical error is repeated throughout the report

6th para 4th line. There is in Indonesia no existing C2C programme. During inception phase there was a parallel promotional activity by Swiss consultancy on C2C in Indonesia, and following that MoI requested SECO to support a trial on C2C.

7th para, last sentence. The NEs are already used in the project. Hence suggested alternative text: *“National experts/RECP assessors are trained in the Project and are recruited by the Project to undertake RECP assessments in the demonstration enterprises with the guidance and support of the core Project team, particularly CRECPI and CTB”*

Page 7

1st para, 3rd line: There no longer a GI Roadmap. In 2014 MoI adopted a new Law on Industrial Affairs (under reference MoI 2014/2) and this includes specific reference to promotion of Green Industry as one of the core mandates for MoI

1st para, 3rd line, C2C in textile does not exist and should be removed. The Sustainable Tourism Destination Programme of the Ministry of Tourism can be added.

1st para line 11-12. In the project document, contributing outcome 3 is formulated in terms of policy framework put in place, as, indeed, such adoption of policies is beyond the control of the project management. Yet the outputs (=result), under 3.1-3.4 are in the project document formulated in terms of *‘instruments developed and promoted’*. The promotion of instruments is certainly under control of the project (can be achieved through studies, consultations, drafting of policy submissions etc.). Hence statement that *“results defined are not within the control of the project management”* is not correct.

2nd para, first sentence is incomplete. In addition to the recruitment delays, also *“in country policy developments and reshuffling of government mandates after presidential election of 2014 had caught up on the project design and implementation modalities to the extent that a project amendment was needed”*

4th para, line 9: What evidence is there to state that the *‘travel of PM had little effect’*. What alternative and more effective modality would have been available to arrive at the amended project document and get consensus of stakeholders on this amendment?

4th para, last sentence is incomplete. In the awareness only powerpoints have been used. Yet in the experts’ trainings, the powerpoints have been accompanied by custom-made assessment documentation protocol and international reference RECP manuals.

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⁵⁹ Please note that these comments have been considered by the Evaluation Team in finalizing the Independent Mid-Term Evaluation Report.

2nd para, 2nd line: ‘*project staff*’ would be more correct than ‘*consultants*’ to avoid possible mix up with the part time NEs that are consulting to the project. The statement in brackets does not do justice to the fact that in their part time capacity the senior ITB appointed staff are managing CRECPI, in terms of endorsing and reviewing workplans, signing agreements with counterparts in local government and business, and for contracting of the part time NEs.

2nd para 3rd-4th line. It is NOT unique to CTB that it has its own staff involved as NE/Associate Assessors. Indeed there are (in addition to CRECPI management) also 5 ITB staff involved as NE/Associate Assessors. 4 of these ITB staff were indeed interviewed by the evaluation team during their field mission (respectively Mr Aridyan Harimawan, Ms Mayrina Firdayati, Mr Muahmmed Ibrahim Aji (met @CRECPI) and Ms Gita Fardani Swastina (met @ CTB)).

2nd para from line 7: Sentence on ICPC is misleading. ICPC runs under joint mandate of MoEF and KADIN, yet in planning and day to day operations, KADIN is not involved. Secondly, outside experts (from academia and private sector) are assigned and mandated to work part time in ICPC, yet there is no budget for their work and hence these assignments remain unremunerated (including for the Executive Director)

2nd para from line 10: The RECP expert pool is an initiative that has been developed and nurtured by the Project yet the notion of expert pool preceded actual implementation of the project as it had been identified as a priority action under the Government’s 10 year SCP programme launched in 2013. The Executive Director of ICPC supports this expert pool, yet did not seed this activity on his own as suggested in the report.

3rd para, first line. It is worth adding that some of the NEs are from the industrial park management companies, as these do not suit either the category of private consultant nor lecturers.

3rd para, last sentence is incorrect. UNIDO shares responsibility for the time estimation for the contracts, as in the UNIDO contract to CTB and CRECPI respectively, UNIDO has set a limit on the volume of the contracts to be issued to national experts. It is therefore suggested to replace last sentence with e.g.: *“It could be kept in mind though that about 10 days thereof have been spent in classroom for training and review activities, whereas in addition the experts are contracted as ‘trainee’ experts, signifying that the contract is a ‘learning by doing’ assignment and hence therefore cannot be fully remunerated as qualified expert. Notwithstanding the above though, time efforts appear to have been higher than expected on basis of UNIDO’s international experience in the global RECP programme, possibly as a result of over-estimation of the consulting and problem solving capabilities of the trainee national experts”*

4th para, 2nd sentence is incomplete. As the CTA works in four different implementing organizations, rather than being seconded by one “deputy”, the CTA is seconded separately through a full time national project staff in each organization (NPM in CREPI, Textile Specialist in CTB, GI Policy Advisor in CADGIE and Environmental Policy Advisor in ICPC).

5th para, 4th line, is incomplete: *“Guided by the outcomes of national experts’ consultations and sector and regional dialogues, ICPC and the Project have taken initiative”*

5th para last line. The WA group in Jakarta is not among NEs but among project staff. In addition though, there are separate WA groups of the NEs involved in each of the regional/sectoral clusters of demonstrations (e.g. Sleman/Magelang, Batam etc.).

8th para, at conclusion of the first sentence on line 2, following can be added: *“as well as with other projects funded by SECO in Indonesia, particularly SCORE programme of ILO and Tourism Destination Management Programme of Swisscontact”*

Page 9

3.1 conclusions

First point: First sentence is incomplete, and would need to also reflect: *“national policy and institutional changes that had taken place during period between project formulation (in the main during 2009/10) and its final approval and funding (in 2012)”*.

Third point: *‘is entirely hinged on ... CTA’*, implies that no other parties have (and/or would have had) any influence on strategy for and execution of the project activities. On what evidence is it concluded that there is no other strategic or operational input/guidance to the project beyond the CTA?

3.2 recommendations

Second point: Why should only ICPC be supported to become a sustainable post project institution? Given the networked strategy, wouldn’t it be appropriate for all current project partners to receive support to become sustainable anchors for the post project network?

Page 12

1st para, 5th line. There are no NE based in Jakarta. Instead the team met with the national project staff seconded to the implementing partners, ICPC and CADGIE

1st para, last line. Meeting with Hotel and Tourism Association was scheduled but did not take place

2nd para 7th line: GEES is not an outside enterprise contracted by ITB. GEES is one of the commercial entities inside ITB which has been assigned ITB to act as contracting partner for UNIDO for the activities of CRECPI under the Project

2nd para, last line, correct name is Batam Free Zone Authority (no industrial in the formal name)

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3rd para: in the project context it is worthwhile to add “fish and seafood” as another relatively abundant natural resource of Indonesia

5th para, 12th line is incomplete: industrial estates can be equally managed by state owned enterprises (e.g. KIMA in Makassar as partner in the project) as well as by private enterprises, including national/international joint ventures

6th para, line 7 “*over recent years*” should be scrapped as the support from other donors to CP projects in the main ended in or around 2008.

Final para, 2nd line. Min of Trade is NOT involved in Green Industry development

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2nd para: observations are correct, yet apparently these are not reflected in the evaluators’ assessment on efficiency and effectiveness. It had been expected during preparation phase that the project could easily hatch on past experiences, yet at the time of implementation it turned out that these past experiences were largely extinct. Hence, project had to rely more on international training materials, could not access Indonesian business cases etc, each of which would amongst others have contributed to the additional time spent by NEs on the enterprise assessments.

4th para, 1st line. The UNIDO RECP project IS the national RECP programme. There is no further or separate national RECP programme of the government. Suggested to change to: “*The UNIDO RECP Project reflects well on pre-project CP and related policy and projects...*”

Page 15

1st para under project background, 2nd line. The project strategy was developed after government request was received (hence after March 2009) and its draft was presented for stakeholder review in June 2009.

Page 16

Final para, under 2.1. Textile sector was added under 2.1 but the specific C2C outputs were added under 3.3.

Final para on outputs 3.1-3.4: The summary of changes in outputs under workstream 3 is not correct. As policies had been initiated at time of project implementation, workstream 3 was restructured to support each of the policy domains. Hence de facto, the former sequential structure of workstream 3 (i.e. policy gap analysis, strategy formulation, instrument development and promotion) was changed to parallel structure to provide input in parallel to actual implementation of already announced sectoral policies in four ministries.

Final para on outputs under workstream 4: Also for workstream 4 the change was essentially from a sequential to a parallel set of outputs. The former structure of consecutive needs and opportunity assesment and pilot project support, was replaced by parallel activities on three different innovation platforms, respectively GC&E, IS and C2C.

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2nd para under 1.2.3 a: 2nd line. CRECPI was established in 2013 for the purpose of promoting RECP through ITB, including through the hosting of the UNIDO RECP project activities at the Institute of Technology Bandung

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2nd para, 8th line. The RCC, being a committee, would never have been able to be a ‘hub’, as the latter refers to an institutional anchor. It was meant that RCC could facilitate and guide the network development activities under the Project.

3rd para, 6th line. Please drop text between brackets (*‘also referred to as Business Service Providers’*). The NEs are individual professionals, trained in RECP assessment, and may as a result thereof become future RECP business service providers. The individual professionals are staff of other institutions (universities, consultancies, industrial park management companies), and these institutions are already business service providers (yet not specifically in RECP).

3rd para, 6th line. The connotation *‘voluntary’* would be misleading, as it could suggest that the experts are operating pro-bono. As a more accurate description following is suggested as *“These are professionals that have applied to be trained and coached under the Project coming mostly from academia (state and private universities in the project regions), industrial park management agencies and some private consultants, who have been trained in RECP under the Project and who under the Project have been contracted through either CRECPI or CTB to assist the demonstration companies by undertaking RECP assessments and providing advice on how to improve their environmental and business performance”*.

3rd para, last sentence. It should be 5 instead of 4 industrial clusters (respectively food and textile sectors, and Batam, Makassar and Sleman/Magelang regions).

5th paragraph. The paragraph seems to overlook the element that the project’s attempt to achieve a major roll out to multiple sectors and multiple regions is done to put RECP firmly on the agenda of business. If RECP can become the ‘talk of the town and/or sector’ then this would indeed create a demand for RECP services (and as such this is complementary to attempts to create a market exclusively by focusing on environmental law enforcement).

Page 19

1st para 2nd line is incorrect. GEES is not an accounting/financial management and administration partner, but a commercial unit of ITB assigned by ITB management to manage the contractual matters for implementation of the UNIDO RECP project.

1st para, 9th line, typo: CRESPI should be CRECPI

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2nd para 4th line, IGIDC became CRECPI (not CADGIE) and it operates under ITB (not MoI)

2nd para, last sentence, is then no longer correct as CRECPI is not a government institution. Hence alternative text could be: *“Ownership of the National RECP Programme was vested in the then Ministry of Environment and Ministry of Industry, which the project being registered as an ODA project under the Ministry of Environment”*

3rd para, 4th line. Footnote 17 does not relate to text

3rd para, last sentence. Suggest to add at end of sentence .. *“... activities had to be altered and redistributed between project implementing partners”*

4th para, 2nd point CTB was added, not ICPC as ICPC had been in the project design right from first discussions in 2009

Page 24

1st para 3rd line. CTA is in first place the technical person to assist local partners in implementation of project activities. The managerial responsibility is only a delegated responsibility from PM.

3rd para, sentence starting on 5th line on indicators is only partially true. At project completion of course implementation of RECP options and policies will just have started and as such their total benefit can only be determined years into the future. Yet, it is also clear that if there is not yet any demonstrable/measurable benefit at project completion, there will be no long term benefits. In other words something would have to have been implemented at project end and the benefits thereof can be measured, recognizing that these would then be an underestimate of the total benefit likely to have occurred in the longer run.

5th para. The observation is not backed by facts. Firstly it was only 3 months and notably the 3 months with the most important national holidays. Secondly and notwithstanding the above, the project delivered during this period 4 industry trainings (each of 1 day), one expert training and one policy training (2 days each), one sector technical seminar (1 day) and one international environmental technology workshop (2 days), and undertook review meetings/on site assessments at 10 demonstration enterprises.

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1st para. It would be useful to add at the reflect that de facto the rice milling units are micro enterprises that the project is already working with, e.g. by adding at the end of the final sentence *“even though it is noted that under the food sector component support is already provided to eight micro-scale rice milling units in W Java”*.

4th para, first line is not fully correct. The international environmental technology workshop for Textile sector held on 26-27 Sept which was the first dedicated activity under outcome 4.

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1st para, 2nd line: as noted before it is not unique to CTB to have its own staff trained as RECP NEs. The same is being achieved for ITB

5th para, first sentence. Taking into consideration that the Project already targets high numbers per enterprise cluster/group (50 for each sector, 25 for each industrial zone, etc, indeed much higher than in comparable RECP programmes elsewhere) it would be appreciated if evaluation team could explain what going deep would then still mean.

Page 28

1st para, 7th line. Please replace “consultants” with ‘project staff’. Moreover, the total number is 8 instead of 7

3rd para, 3rd-4th line. In addition to powerpoints provided, the project prepared customized assessment documentation protocols and provided to all experts a set of international reference materials.

3rd para, 5th line. CTA is misquoted. His full explanation was: *“The CTA explained that such manuals would eventually be prepared, but unlike many other projects that have spent first year on preparing materials, it was decided to start with internationally available resource materials and develop national materials upon completion of first round of company assessments to reflect Indonesian examples and experiences in the resource manuals”*

4th para, sentence starting on 3rd line is incorrect. *“First 10 final assessment reports had been submitted and were being reviewed by company management and project staff at the time of the Evaluation”*

6th para, 1st sentence is a bit misleading. There were project costs during 2012 yet these were not yet charged to the Project Budget (these were incurred against other ongoing regional project).

Page 29

2nd para, line 6. The travel money during 2013-2014 was spent to re-consult with stakeholders as part of the preparation and agreement on the project amendment, whilst in addition two industry awareness seminars were organized and co-delivered by the PM during 2013 as well as four separate trainings during 2014 (total 9 training days).

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3rd para (on CRECPI) 11th line: C2C would be implemented through CTB (not CRECPI). UNIDO would hire international C2C expert to train and guide the current national expert team to expand into C2C assessment.

3rd para, final sentence. It would be justified to add a qualifying statement that sustainability of CRECPI ‘in its present management and administrative set up’ is not sustainable. There is potential (as with ICPC) to support a transformation into a more sustainable set up under remaining project period.

4th para (on CTB): in second sentence it might be worthwhile to mention that the Green Industry auditor training was co-delivered by CTA and GI policy advisor of the RECP programme

Page 31 1st para, 3rd line. Indeed only one CADGIE staff participated in the RECP assessment training for NEs. Yet project already delivered other and more customized training for CADGIE, including: half day introductory training; 3 day RECP/GI policy training; and contribution to GI Auditor training (two batches).

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5th para 1st line. 10 national experts had at the time of the fact finding submitted their draft final reports and the project team and company management were in the process of review and verification of these draft reports

5th para 4th line: there is no group of RECP assessors based in Jakarta. The comment might have come from one of the other groups of assessors interviewed by the evaluation team

6th para, last sentence. CTB is largely (>80%) paid by government, through the Ministry of Industry, hence statement that CTB is paid by the industry is not correct

7th para, 2nd-3rd line. The soft skill deficit is broader and would in addition to communication also include analytical thinking, problem solving, and advisory skills

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1st para last sentence: The WA group in Jakarta is among project staff and hence not applicable to this section on national experts. Though there are additional WA groups of the NEs working in the different geographic and sector clusters.

4th para, footnote 32: Does not seem to reflect Indonesian context. If going deep would indeed mean 40% of enterprises per industrial zone or sector depth is simply not affordable in a publicly funded undertaking, given the numbers of enterprises involved: 700 factories in Industrial zone in Batam, then work with 280? About 400 palm oil mills, then work with 160? This high percentage has also proven to be unnecessary (considering innovation theory, technology diffusion dynamics and using scaled up methods).

7th para, 3rd line. BAPEDAL was central agency and no longer exists. Suggest to edit to: *“There are too few environmental inspectors in the local environmental agencies and their legal and administrative mandates and resources are insufficient to cover all the enterprises, as they should, so the inspection visits are merely at random”*.

7th para, last line Batam has a BEPEDAL not BAPEDAL. <Evaluation Team: Comment is not understood, as the ones interviewed said they were part of the (local) BAPEDAL>

Page 34

2nd para, sentence starting on 5th line: True that project cannot eliminate non-compliance. Yet there are other mechanisms to mobilize pressure on enterprises - though (international buyers), suppliers of equipment and fostering responsible business conduct. Each is being addressed through the present Project.

6th para, 1st line: Any CTA in any project is in principle a stumbling block to sustainability, regardless of whether or not proficient, dedicated, enthusiastic or not.

6th para, 3rd line. Contrary to the statement the CTA is working directly with the lead project staff and institutional representative in each of the partner institutions (ICPC, CRECPI, CTB and CADGIE). In doing so, emphasis is placed on fostering continuity within each partner institution, ahead of keeping the current partnership of four institutions in its present form together. If each institution finds its niche in RECP service provision, they are like to find each other to cooperate. If on the other hand if the institutions do not see their own role, a forced cooperation will not succeed beyond project end.

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Section 2.5.1, first dot point, 1st-2nd line. CTA is in first instance the main technical resource in the country, day to day management is only delegated authority and follows being a technical resource. The functional role is Technical Advisor, not project manager.

Section 2.5.1, 3rd dot point, 1st line. To avoid confusion with National Experts/associate RECP assessors, please replace UNIDO experts with UNIDO project staff. Repeated on line 11.

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2nd para, 3rd line, replace “*experts in Jakarta*” with “*experts working in each of the activity and industry clusters within the Project*”.

4th para, 5th line. Textile sector should be seaweed sector

4th para, 7th line, at the end, after ‘*from the GEF project*’, consider adding: “*and one of the IEE pilot companies joined the RECP demonstration in the textile sector.*”

5th para, 7th line, between brackets, replace ‘*palm oil and palm kernel industry*’ with ‘*tempeh and soybean industry*’

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1st para, first line: to avoid confusion, please replace ‘*experts*’ with ‘*project staff*’

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2nd para, 3rd line. The technical description is not correct. Please change to “*Moreover as documents are shared by UNIDO official email, they are all by default backed up through the UNIDO email server*”.

Page 41

3rd para 2nd line ‘*local BAPEDALs*’ should be ‘*local environmental agencies*’.

Page 42

3rd recommendation, component 4 should be component 3

Page 43

3rd lesson learned, 1st line. ‘*Experts*’ should be replaced by “*project staff*” to avoid mixing up with NE/associate RECP assessors.

Draft minutes from Mid-Term Evaluation Review Meeting 8 December 2016.

DRAFT (19 DEC. 2016)

National Resource Efficient and Cleaner Production (RECP) Programme Indonesia **Review Meeting on Mid Term Evaluation (MTE) Report**

1. Venue : Four Points Hotel by Sheraton, Jln. M.H. Thamrin 9, Jakarta

2. Day/Date : Thursday, 8 December 2016

3. Time : 14:00 – 16:30

4. Attendants : (The informal meeting was organized to discuss and reflect upon the draft findings of the Mid Term Evaluation (MTE) of the Indonesian RECP Programme. Members of the Programme Management

Committee (PMC) had been invited as well as representatives of the national implementing partners and partner ministries. Meeting participants are listed below. Moreover, apologies were received from representatives of Indonesia Cleaner Production Centre (ICPC) and the Centre for Textiles Bandung (CTB).

- Mr. Noer Adi Wardoyo (NAW) (*), Director, Centre of Environmental and Forestry Standardization, Ministry of Environment and Forestry (MoEF)
- Mr. Lintong S. Hutahaean (LH), (*) Director, Center for Assessment and Development of Green Industry and Environment, Ministry of Industry (Mol)
- Mr. Martin Stottele (MS) (*) Head of Economic Development Cooperation/SECO Jakarta, Switzerland Embassy in Jakarta
- Ms. Dewi Suyenti Tio (DST) National Programme Officer, Economic Development Cooperation (SECO) Jakarta/Switzerland Embassy
- Prof. Dr. Tjandra Setiadi (TS) Head, Centre for Resource Efficient and Cleaner Production Indonesia (CRECPI)/Institute of Technology Bandung (ITB)
- Prof. Dr. Puji Lestari (PL) Deputy Head, CRECPI/ITB
- Ms. Sarah Hutagalung (SH) Ministry of Tourism (MoT)/Sustainable Tourism Development Programme
- Mr. Rene Van Berkel (RVB) Chief Technical Advisor (CTA), UNIDO RECP Programme Indonesia
- Mr. Nahrudin Alie (NA) National Programme Officer (NPO), UNIDO RECP Programme Indonesia

5. Agenda of the meeting:

1. Update on RECP Programme
 - Status of Project Activities
 - Findings from Mid Term Evaluation
2. Reflection/Discussion
3. Way forward
 - Overall direction
 - Management response

6. The meeting was officially opened by *Pak* Noer Adi Wardoyo (NAW) on behalf of the Ministry of Environment and Forestry (MOEF) who warmly greeted participants. To set the stage for the discussion, Mr. Rene Van Berkel provided an update on the status of implementation of the RECP Programme as well as key findings of the MTE report. The powerpoint presentation used is included as *Annex to this minutes of meeting*. Thereafter, participants were invited to reflect, upon which UNIDO shared initial views on way forward.

7. TS commented that the present set up of CRECPI is comparable to arrangements for other Centres within ITB. ITB acknowledges that at present sustainability of CRECPI is still limited. TS confirmed though the commitment of the highest levels within ITB to work towards greater sustainability.

8. MS observed as the key point that the present ambition of the programme appears to compromise effectiveness and efficiency in implementation. He therefore requests the programme management to come forward with a considered response and proposal. Part of the width of the programme (in terms of sectors and regions covered) should probably be foregone in exchange for greater reach or depth in sectors and regions already initiated (through replication activities that involve current experts trained and that provide training and support to enterprise staff). He argued in favor of reflection of lessons learned from implementation as the basis for finetuning further project interventions. New sectors or

Mid-Term Evaluation of RECP Programme, Indonesia

regions may not necessarily need to be all cancelled, in particularly not those for which initial commitments have been made, yet their start up may have to be somewhat delayed, particularly in the context of a potential project extension.

9. NAW conveyed on behalf of MoEF that scale should not compromise quality. He therefore agreed that the programme should look first for replication and scale within current sectors/locations which have already started and on basis thereof adjust what other sectors/locations can still be supported.

10. SH shared on behalf of MoT the view that in the context of fostering RECP as cornerstone for sustainable tourism development, it would be highly desirable to have demonstration results in at least two regions, given location specific conditions.

11. LSH commented that it is too early to expect and see concrete results. He suggested to have a review for reference on what sectors/locations offer most perspective for replication and impact. In this matter, we need to assess the results of RECP implementing partners (including CRECPI, CTB as well as other technical centres operating under MoI) and perhaps one could see who have implemented the programme most effectively. He gave example to the work of CTB (textile centre). This centre could be directed to work deeper, on the sector market and policy, etc., and what its external and internal driver/matures.

12. MS reflected that with just 18 months of factual implementation, it is too early to have significant evidence for both impact (benefits achieved by enterprises) as well as sustainability (of institutions and expertise created under the Programme). He added that SECO would not expect full sustainability at the end of the present programme, recognizing that a second phase/longer term donor support might be needed. Notwithstanding the above, MS reiterated the need to shift leadership from CTA/UNIDO to the national implementing partners.

13. LSH stated that National Experts are (or should become) agents of change and it could apply in the RECP programme. It also requires strong involvement of sector associations (e.g. API the Indonesian Textile Association), and them working side by side with the consultants to form an RECP expert pool and to result in competent industry managers, technology plan and professional consultant within the said sector. He further suggests to implement the programme not only in quantity but also on quality.

14. A further discussion evolved around technical resource/reference manuals. RVB clarified that so far the Programme has largely used international RECP reference materials (in the main those produced by UNIDO and UNEP under their joint global RECP programme and RECP network), complemented by presentations, assessment documentation protocols and training exercises. With the first demonstrations coming to conclusion, it is foreseen to draft customized RECP technical resource in national language, thereby blending in national experiences into international best practice methods and tools. Whilst endorsing this approach, NAW reiterated the urgency to draft such technical reference documents, and assist current expert groups (such as AMDAL and PROPER assessors) to start using these.

15. On Admin/Finance matter, TS shared concerns about complexity of contractual and administrative arrangements of implementation, and the resulting cash flow challenges.

16. RVB continued with a reflection from UNIDO and a rough outline for potential changes in the programme. He highlighted three dimensions for greater total impact (as on slide 24 in annex), respectively by deepening (in terms of technology and business models), widening (in terms of methods and tools) and pushing (in terms of policy and other incentives). In moving the Indonesian RECP programme forward, efforts are needed to:

a. Rebalance scope and depth of the programme. In this regard, geographically the project could be constrained to six provinces, and sector wide some rationalization would be possible by (i) using the rice milling activities (currently under food sector) as a case for replication in small scale industries; (ii) removing chemical products as target sector; and (iii) extending the replication to textile sector. In terms of policy support, the component for Min of Energy and Minerals Resources could possibly be removed, whilst in addition, the scale of interventions under the technology workstream could be adjusted in the context of the findings and lessons learned in the target sectors and regions.

b. Strengthen sustainability – of each of the implementing partners individually (with each having their own specific sector and/or expertise niche) as well as for the RECP network, comprising both the RECP expert pool as well as the foreseen RECP stakeholder alliance.

c. Extended support for the RECP experts – firstly, through the provision of technical reference materials (potentially including RECP standard or technical specification, implementation guidelines as well as sector and business case studies); secondly, through advanced learning and coaching focused on advisory skills. Both would go hand in hand with continued involvement of the experts in implementation and replication in both present sectors and regions as well as potentially new ones.

d. Allowing for a project extension to release part of time pressure and provide greater opportunity for learning and institutionalization.

17. MS welcomed the overall approach for a possible project amendment. He confirmed in principle agreement for a zero-cost project extension, following an official request from UNIDO (with mandate of PMC) that would contain a revised set of KPIs (and possibly adjusted log frame), a revised workplan (until project completion) and revised budget. He encouraged to take a critical look at all project activities, and streamline down to those most critical towards achieving total impact and sustainability. He also noted that SECO attaches to maintaining a pilot on Cradle to Cradle for the textile sector.

18. Participants unanimously requested UNIDO to prepare management response and project amendment along above lines, taking into account specific requirements of both UNIDO and SECO.

19. Required follow actions and responsibilities:

Follow up actions/Deadline/Responsibility

1. To share with meeting participants a list of the key global RECP reference documents currently used in the RECP Programme in Indonesia/8 December 2016/ UNIDO
2. To prepare RECP guideline preferably in Bahasa as future reference for doing RECP assessment/Quarter 1, 2017/UNIDO
3. Prepare narrative and financial biannual progress report (July – Dec 2016)/Mid-January 2017/UNIDO
4. Prepare a substantive management response to the findings of the MTE evaluation reflecting the meeting outcomes, including, as appropriate, amendments to (1) log frame and key performance indicators; (2) workplan (2017 until project completion); and (3) budget utilization/January 2017/UNIDO (with inputs from PMC members, as appropriate)
5. To organize 7th meeting of PMC for formal endorsement of Management Response/First week of February 2017/UNIDO
6. To formalize a zero-cost project extension in accordance with the Management Response/February 2017/UNIDO and SECO

*Annex: Powerpoint presentation René Van Berkel
As of 19 December 2016*

