

GGGI Thailand Country Program Evaluation

Final Report

Julia Larkin, IDEAS for Energy

23 March 2018

Executive Summary

Introduction

Established in 2012, the Global Green Growth Institute (GGGI), with headquarters in Seoul, Republic of Korea, is an inter-governmental organization whose objective is to move member countries towards a model of green growth thus contributing to its vision of “A resilient world of strong, inclusive and sustainable growth.”

GGGI works across four thematic priority areas - energy, water, land use and green cities - as envisaged by the Strategic Plan 2015-2020. As of January 2018, GGGI has operations in 26 countries.¹

As part of its annual evaluation planning, the Impact and Evaluation Unit of GGGI commissioned this independent evaluation of the Thailand Country Program. The evaluation was conducted from December 2017 to March 2018 and covered activities from 2014 – 2017.²

The evaluation objective was to:

1. Assess the performance of the three pillars³ of the GGGI’s Thailand Country Program, including its impacts to date and the robustness of its theory of change; and
2. Make actionable recommendations to further improve its current and future delivery approach and impact.

This evaluation followed the approach documented in the Evaluation Approach Paper.^{4, 5} The main audience is intended to be key Thai stakeholders, GGGI’s management, Country Team, and members of the Management and Program Sub-Committee (MPSC).

Overview of GGGI’s Thailand Country Program

This evaluation sought to address a wide range of issues for a multi-pronged program. In addition to broader process issues, the evaluation had three Focus Areas:

- Focus Area 1: “Industry GHG Reduction to Support the Implementation of Thailand’s Climate Change Master Plan” (GHG Roadmap). The objective was to assist the implementation of Thailand’s Climate Change Master Plan by developing a clear roadmap for GHG reduction in selected industry sub-sectors of the Thai economy (palm oil, frozen seafood, and automotive parts industries). This project has been completed for over 18 months and relevant stakeholders had limited memory of processes.

¹ www.gggi.org

² Julia Larkin of IDEAS for Energy served as the independent evaluator.

³ GGGI’s three pillars target addressing (A) policy, (B) capacity and (C) financial barriers.

⁴ <http://gggi.org/site/assets/uploads/2017/12/GGGI-Thailand-Country-Program-Evaluation-Approach-paper-design.pdf>

⁵ A few components of the Evaluation Approach Paper were updated in the Evaluation Inception Report. For example, the evaluation questions and evaluation timetable were updated. The Evaluation Inception Report also included a table of interview topics by stakeholder type (See Annex C) and a draft table of contents for what became this Final Report.

- Focus Area 2: “Accelerating the Nationally Determined Contributions (NDC)” seeks to enhance the Government of Thailand’s ability to implement its NDC. The first phase of this project is complete and resulted in an NDC Action Plan for the Industrial Sector. The second phase, which includes capacity enhancement activities (e.g. workshops with industry) and demonstration of green project development (2 projects anticipated) is still in progress with activities planned for both capacity building and project demonstration for 2018. Only a few stakeholders involved in the interviews were familiar with the activities so far.
- Focus Area 3: “Thai Auto Parts Supply Chain Development through Energy Efficiency” (TAPEE) which is intended to be a comprehensive energy efficiency (EE) finance program to address multiple barriers to EE investment for SME auto parts manufacturers. The project objectives are to (A) design an investment structure (B) create a risk-sharing facility (C) develop an on-bill financing (OBF) mechanism through a local utility and (D) develop a pipeline of bankable projects resulting in 1-2 successful projects during TAPEE itself. This project was delayed, and portions of the design are still evolving. Some key relevant stakeholders were not willing to participate in this evaluation.⁶

Lessons Learned

The following lessons learned are drawn from both the successes and challenges faced by the Country Team as they implement the activities described above in Thailand. The lessons are organized by the same OECD Development Assistance Committee (DAC) criteria used to organize the evaluation questions: Relevance, Effectiveness, Efficiency, Impact, and Sustainability.

Lessons learned - Relevance, including project selection and positioning within the country

REL1: Activities in Thailand provide a good fit with both the Royal Thai Government’s requests and GGGI’s mission and objectives overall. Thailand’s commitment to climate change is well-documented. Although there is uncertainty regarding the current government’s longevity and, therefore, long-term commitment to current project priorities.

REL2: Thailand engaged with GGGI partially to increase access to the Republic of Korea (RoK), as GGGI is based in the RoK. Government representatives were also interested in GGGI’s perceived technical and economic expertise, international network, potential to access financing.

REL3: The choice of counterpart is important, and the most appropriate entity may change over time. As the planning agency and focal point for international climate change activities, Office of Natural Resources and Environmental Policy and Planning (ONEP) was a reasonable counterpart for the original planning outputs, though other agencies more focused on implementation would also have been reasonable. As activities switch to implementation, these other government entities may be more relevant as a counterpart instead of, or in addition to, ONEP for a specific project, depending on the project context and goals.

⁶ Note: The TAPEE concept originated from the Green Investment Services (GIS) department, which manages its budget.

REL4: **Having offices at (or near) the counterpart helps facilitate relationships.** The GGGI team is in the same building as their direct counterpart, as are other entities, including GIZ.

REL5: **GGGI is the ‘new kid on the block’ with limited credibility established so far and the Country Team must continuously prove themselves** in terms of technical quality as well as demonstrating respect building appropriate stakeholder relationships and navigating in-country dynamics. This results in a high-pressure environment, particularly when the Country Team are being pulled in different directions and having to prioritize.

REL6: **Project selection and ongoing support can be influenced by activities and behaviors of other donors and initiatives** active in the country in addition to formal criteria. For example, the counterpart may defer to the preferences of other initiatives that have substantially more presence in the country than GGGI. If these soft factors are not taken into account sufficiently a project may struggle to gain traction.

Lessons learned - Effectiveness, including internal processes as well as project reach

EFV1: **Ensuring relevance is insufficient to ensure uptake.** To date, GGGI’s activities in Thailand are highly relevant, but uptake is more limited than expected. This is due to addressable issues with project design as well as lack of a clear long-term ownership path for the outputs within the Royal Thai Government.

EFV2: **Project implementation, as well as impacts and long-term sustainability are influenced by institutional dynamics within the Country.** Most projects require ongoing cooperation, such as through sharing data from one or more government entities and/or private sector groups who are not the same as the country counterpart.

EFV3: **Stakeholder relations are complex.** It is a delicate balancing act between keeping stakeholders informed, allowing them to have a voice in project development, and expressing a clear vision that inspires confidence and trust. Also, different stakeholder groups have different preference for the approach to engagement (e.g. personal meetings, email updates, or teleconferences), which must be managed.

EFV4: **Budget challenges and limitations can harm credibility.** While there does need to be a mechanism for discontinuing nonviable projects, the degree of the ongoing budget challenges within GGGI, and with the Thailand Country Program in particular, have created uncertainty within the country counterpart. For example, earmarked funding anticipated for 2017 did not materialize. This has led to concerns that GGGI can actually deliver in the future, harming the Country Team’s efforts to build credibility and increase visibility.

EFV5: **Small country teams may not be able to cover all desired skillsets internally**, and should not be expected to do so. The Country Team consists of 3 people doing all tasks from very high level to technical to very basic administrative and office tasks, and increasingly resource mobilization as well.

EFV6: **Data quality/availability is an important component of many projects.** Data quality and availability relating to industrial GHG emissions has hindered both the GHG Roadmap and the NDC Action Plan development in ways that were not fully anticipated during project planning.

EFV7: **It is important that stakeholders feel their time is valued.** This is particularly the case for skeptical groups, like the private sector. This is most effective when GGGI staff strike a balance between openness to stakeholder feedback and demonstrating a clear vision that inspires trust. Stakeholder relationships have been facilitated when there is a clear understanding of what is in it for the stakeholder, the objectives of the meeting are clear, and when they have been approached in the expected way demonstrating respect. When a new meeting is requested stakeholders want to know why new interaction is also/still relevant for them.

EFV8: **Project concepts need to be framed in ways the stakeholders will sufficiently understand and be willing to own long term.** More support and openness has been possible when stakeholders clearly understand what is being proposed. The implication for GGGI is to approach stakeholders using the terminology and concepts familiar to the stakeholder, even if that requires extra work/reframing.

EFV9: **Multiple stakeholders do not yet fully understand and are skeptical of TAPEE.** There appear to be several reasons for this including the involvement of 'outsiders' from other countries, the perceived complexity of the proposed credit risk guarantee mechanism, the involvement of an Energy Services Company (ESCO) market that is perceived as nonviable in Thailand, and lack of clear understanding by stakeholders of how it will all come together into a coherent package.

Lessons learned - Efficiency, including internal processes as well as facilitating stakeholder ownership

EFC1: **It is difficult to assess efficiency, especially due to changing budgets and priorities.** This phase includes establishment of the Country Program, which included: substantial stakeholder engagement, its evolution from one project to multiple independent projects to more recently coalescing into a more coherent program of activities focused on capacity building and facilitating bankable projects. In addition to the regular planning and budgeting cycles, there have been four significant budgetary disruptions, resulting in uncertainty and sometimes cuts. Also, the budgets do not clearly separate project and administrative labor.

- EFC2: **It takes long and consistent effort to establish credibility in a country.** The extent of initial, as well as ongoing, stakeholder engagement that is needed to establish and maintain relationships and build credibility is time-consuming and not necessarily related to a specific project-budget line item. However, when there are issues (as is currently the case for TAPEE) it undermines not only the current projects, but overall trust and possibilities of success in the country long term.
- EFC3: **Stakeholders may have suspicion/bias against foreign consultants that can inhibit local engagement and ownership.** Both cases where international consultants were used was noted and met with skepticism by some stakeholders. It is likely that any faux pas or perceived lack of understanding of the Thai context or 'way of doing things' contributes to distrust and/or hesitancy to engage.
- EFC4: **Country timeframes do not necessarily match GGI timeframes.** Project design as well as timeframes need to be realistic and tailored to the country context from the outset to be useful and effective as well as to ensure appropriate long-term ownership. External deadlines that are out-of-sync relative to local stakeholder needs that put unwelcome pressure on stakeholders will undermine the entire project, i.e. there is a need to ensure stakeholders are sufficiently on board before proceeding to the next step.
- EFC5: **It is challenging to assess if a gap is there because the idea is a ripe opportunity rather than not ready.** This can result in lost time/effort. GGI seeks a niche of providing effective support that does not duplicate other efforts. In the case of targeting energy efficiency in industrial SMEs in Thailand, all stakeholders agree this is an unmet need, yet one of the reasons no one else is focusing on it is that there is no clear government agency owner, which can undermine project effectiveness.
- EFC6: **With only 3, the Country Team spends too much time on internal GGI matters.** The proportion of time necessary to address internal GGI planning, reporting and other needs places a high burden on a team of this size, undermining project delivery. Up to 1.5 full-time equivalent (FTE) is being spent on internal GGI matters, which leaves only 1.5 FTE for direct project work and broader stakeholder engagement. Most of this internal work appears to be set, so the more staff a country team has, the lower percentage spent on internal matters. They would need more resources to become more efficient and to gain better traction in the country.
- EFC7: **GGI internal processes, e.g. lengthy contracting, can slow implementation.** TAPEE, in particular, experienced significant delays due to both external and internal issues, such as a slow contracting process, which exacerbated challenges of meeting the project timeline.

Lessons Learned - Impacts and Sustainability

IMP/SUS1: Stakeholder engagement from the GHG Roadmap is most significant impact so far. Most stakeholders expressed a positive perception of GGGI and a willingness to engage with them in the future. Multiple stakeholders were impressed that Country Team engaged the industrial sector in ways not normally seen in Thailand during the GHG Roadmap process.

IMP/SUS2: There needs to be sufficient consistent activity to gain traction in a country. With such a small presence and budget, the burden is high on the Country Team to engage in high-visibility activity to maintain stakeholder interest as well as provide formal and informal reminders of project outputs. However, this type of ongoing stakeholder awareness building is not typically included in budgets.

IMP/SUS3: If sustainability mechanisms are not built into the project, they are very unlikely to be pursued after the deliverables are completed and project funding is depleted. Currently, there is no mechanism, in terms of expectation, protocol, logframe indicator, or budget, to follow up on the adoption/uptake of completed projects, e.g. the GHG Roadmap.

IMP/SUS4: The project logframes miss the mark. The logframes for the three projects considered do not make sufficient links between outputs and outcomes and impacts. They do not sufficiently address 'prerequisites' for sustainability, such as having a clear government/in-country owner or dissemination/follow up plan. They also miss including meaningful indicators of quality and reach in addition to quantity, e.g. using 'number of workshop attendees' only does not address whether the most appropriate stakeholders attended or reported receiving relevant and useful information.

Recommendations

The recommendations are grouped by function.

Externally focused: Country engagement

ENGG1: It is important for the Country Representative to coordinate all stakeholder engagement, due to sensitivities. Even when ideas or initiatives are spearheaded from other units or offices, the Country Representative should be responsible for, and deferred to when necessary, all communication and stakeholder engagement as they are responsible for building and maintaining long-term relationships in the country. Stakeholder interactions need to be tailored to cultural and individual preferences, and the Country Representative is responsible for this understanding.

ENGG2: Periodically review the appropriateness of the counterpart agency. This review should include discussions with the current and any proposed new counterpart. The frequency will depend on

the rapidity of change within the country, e.g. as priorities and duties between agencies evolve, as well as for each new GGGI project. For example, this counterpart function could be transferred from ONEP or temporarily delegated when focusing on implementation projects, depending on expectations regarding project characteristics in the long-term. Regardless, ONEP remains designated coordinator for international climate change-related activities for the Royal Thai Government.

Externally focused: Project selection and design

PROJ1: Consider ability to increase visibility when selecting and designing projects. Make significant stakeholder engagement a cornerstone of projects, especially in the early stages of GGGI's country presence to help establish long term relationships and credibility.

PROJ2: Seek a vetting process with key stakeholders for new project concepts before committing significant resources. The degree of cooperation and long-term ownership of all key stakeholders should be assessed in the early stages of the project. This vetting process should go beyond the direct counterpart and include stakeholders critical to the success of the project (e.g. for providing inputs or long-term ownership). To facilitate this, develop awareness/educational materials (e.g. for financial concepts) from the perspective of, and tailored to, different stakeholder audiences that minimizes jargon. This vetting process may also include discussions with other major donors with similar projects, as appropriate. Relevant project concepts may need to be postponed or declined if the long-term pathway to success is not (yet) sufficiently clear.

PROJ3: Assess the inputs critical for project success before committing significant resources. For example, this could include data quality/availability, participation of specific stakeholders as discussed above as well as alignment with other projects/outputs. Where weaknesses are identified, a remedy should be built into the project design.

PROJ4: Consider selecting projects that can show concrete results within a year, using a staged or incremental approach as needed. This will increase attractiveness for skeptical stakeholders or those with a very short-term perspective as well as help build credibility longer term. GGGI's expectations regarding project scope and timeframes will need to be consistent with the counterpart's appetite to facilitate long-term sustainability. This means progress may be slower than GGGI originally anticipated.

PROJ5: Ensure there is a clear path of follow up and long-term ownership built into the design. All outputs should have identification of clear owner(s) for the next phase built into the project design and logframe KPIs. The type of owner would depend on the expected outcomes and next steps anticipated for each deliverable; it could be GGGI staff, a government body or specific

official, or a third party such as private sector or civil society stakeholder(s). This is especially relevant for planning outputs where no long-term impact is possible without follow up after the immediate project. Other prerequisites for long-term sustainability should also be incorporated into the project design and logframe as appropriate. The logframe may need to be updated with more specific information at specified intervals to address this issue.

PROJ6: Seek using in-country resources to the extent feasible to help build credibility as well as build capacity. Consider the profile of potential subcontractors from other locations in the context of and country perceptions relative to value, and whether a local partner is also appropriate. This could be done for example through informal conversations with stakeholders critical for success. In some cases, regional resources may be seen as sufficiently local and consultants with strong international reputations for that specialty may be seen as sufficiently trustworthy.

PROJ7: All key outputs should (also) be in the local language to facilitate use by targeted stakeholders. This means the need for translation for key project outputs as well as public minutes should be assessed and should be factored into project budgets from the outset or be a separate line item in general budgets. While there are clear benefits for deliverables being accessible internationally by being provided in a language such as English, to be effective they first need to be accessible within the targeted country to achieve their primary purpose.

Internal Processes: Planning

PLAN1: Ensure the priorities of different units within GGGI are sufficiently aligned and that there is a clear and safe communication channel to clarify any issues/confusion.

PLAN2: GGGI should clarify its risk tolerance in terms of innovation and flexibility relative to ensuring specific outcomes. GGGI's own priorities and risk tolerance underpin the project selection process addressed above. There appears to be inconsistent messaging between the expectation for innovation and exploring untapped markets while also seeking significant outcomes and impacts in relatively short timeframes.

PLAN3: Restructure the Country Planning Framework (CPF) process to be more time efficient and usable and ensure it is aligned to the Country Work Program and Budget as well as the Country Business Plan. The portion of the CPF that is relevant for in-country work is the identification of themes that can serve to prioritize the work. The remainder appears to primarily be for an external donor audience. For example, the use of outcome estimates that are quite time-intensive to produce yet are of questionable accuracy should be reviewed.

PLAN4: Ensure new requests or shifts in direction from GGGI Headquarters are adequately explained and appropriate support provided. This is to minimize disruption and maximize the likelihood of

buy-in and compliance. This will also increase perceptions of camaraderie and ‘all operating on the same team’ toward the same overall goal.

PLAN5: Ensure GGGI’s planning approach is flexible enough to accommodate shifts in circumstances and priorities within the country. Any shifts in budget determined to be appropriate should be done in consultation with the Country Team, and potentially the direct counterpart for that project. In general, projects benefit from a stable plan and budget with a long enough horizon to complete the necessary tasks. However, as circumstances shift, a project may become less relevant or appropriate midstream and may best be postponed or abandoned if the circumstances have changed dramatically.

PLAN6: Ensure sufficient resources have been put into existing projects before starting new projects. This will substantially increase efficiency and minimize lost or stranded opportunities.

Internal Processes: Budgeting

BUDG1: Ensure there is a stable general budget medium-term as well as for the duration of projects. This is to minimize disruptions and reputational risk and increase efficiency and staff morale as well as credibility with country stakeholders. This should not be seen as inconsistent with *PLAN5: Ensure GGGI’s planning approach is flexible enough to accommodate shifts*, which focuses on recognizing when a project is no longer viable, rather this focuses on ensuring enough certainty, so that projects can be implemented without interruption or distortions.

BUDG2: Ensure there is sufficient and stable budget for all regular costs that are not project specific. This includes ongoing stakeholder relations, internal planning and coordination, monitoring and evaluation, learning, and office administration. This may also include translation of corporate/international documents into the local language.

Internal Processes: Staffing and organization

STAF1: Increase resources available to the Thailand Country Team. In addition to the possibility of additional staff (ad hoc or full-time) or additional support from GGGI HQ, explore the possibility of regional teams or affinity groups to enhance synergies, pool resources, increase flexibility and build organizational cooperation and knowledge sharing.

Project Specific

GHG Roadmap-1: Develop a plan with budget to increase uptake and ownership of the Roadmap. This could include, for example, seeking adaptation of the calculation approach for other sectors by GGGI, another initiative and/or an appropriate government entity, and/or another GGGI country.

It could also include work to simulate the development of industry agreements, new capacity building/industry engagement activities to increase usage and/or brainstorming sessions on other activities that can build upon the material provided in the GHG Roadmap. Develop an updated logframe reflecting this phase of activities focused on increasing impact and long-term sustainability/transformational change.

NDC Implementation-1: Develop a plan with budget to increase uptake and ownership of the NDC Action Plan. As with the GHG Roadmap this could, for example, include work to simulate the development of industry agreements. It could also include new capacity building/industry engagement activities beyond the limited activities currently planned to increase usage and/or brainstorming sessions on activities that can build upon the NDC Action Plan.

NDC Implementation-2: Develop factsheets or case studies with project examples (real if possible, hypothetical if necessary) targeted to industrial SMEs. This will not only help to solicit participants but will extend the reach of the outcomes achieved.

TAPEE-1: Monitor progress carefully to see if TAPEE gains more traction. TAPEE is currently at a somewhat fragile state with some positive progress, yet also significant stakeholder concerns. Therefore, it should be closely monitored to see if it increases in viability, stakeholder support and achieves successful design of instruments and implementation of projects using the instruments as intended.

TAPEE-2: More deeply engage Country Team for help liaising with stakeholders. As multiple projects are being implemented, it is important that long-term stakeholder relationships are maintained. A loss of trust or credibility in one project may significantly impact the likelihood success of other current and future projects.

Linkages to previous evaluations

All of the findings, lessons learned, and recommendations presented in this report are based solely upon analysis of the data collected within the context of this evaluation. However, it is clear that there are many parallels of the perspective of one country's operations presented here with themes GGGI is already in the process of addressing that were presented in higher-level evaluations of GGGI as a whole, such as the Independent Evaluation of the Global Green Growth Institute's Progress against the Strategic Plan 2015-2020 published in July 2017 and the periodic Joint Donor Reviews.

These overlapping themes include:

- Recognizing the practicalities of what GGGI can do, given its size and positioning;
- More strategic selection of projects and activities in countries, including clarifying risk tolerance;
- Increased internal communication, coordination, and knowledge sharing;

- Resolving structural tensions between different units within GGGI to avoid working at cross-purposes, creating stranded non-assets, or in the worst case, (inadvertently) undermining the work of another;
- Making progress on funding challenges and increasing capacity of country teams to the extent they are asked to help support in resource mobilization for the organization; and
- Improving the results-based management framework and results reporting at all levels.

Table of Contents

Executive Summary	2
Introduction	2
Overview of GGGI's Thailand Country Program	2
Lessons Learned	3
Lessons learned - Relevance, including project selection and positioning within the country	3
Lessons learned - Effectiveness, including internal processes as well as project reach	4
Lessons learned - Efficiency, including internal processes as well as facilitating stakeholder ownership	5
Lessons Learned - Impacts and Sustainability	7
Recommendations	7
Externally focused: Country engagement	7
Externally focused: Project selection and design	8
Internal Processes: Planning	9
Internal Processes: Budgeting	10
Internal Processes: Staffing and organization	10
Project Specific	10
Linkages to previous evaluations	11
1. Introduction.....	16
1a. Context.....	16
Overview of GGGI.....	16
Overview of GGGI's Evaluation Policy.....	16
Overview of this evaluation	16
1b. Purpose of this evaluation	17
1c. Key evaluation questions	17
1d. Organization of the remainder of this report	17

2. Overview of GGGI Thailand country program.....	18
2a. Development context.....	18
2b. Key government institutions and policies related to low-carbon growth in Thailand.....	19
2c. Key donors and organizations focusing on climate change and industrial sector.....	23
2d. Main pillars of the GGGI Country program in Thailand.....	23
Staffing.....	25
3. Findings.....	27
3a. Relevance.....	27
3b. Effectiveness.....	31
3c. Efficiency.....	36
3d. Impacts.....	38
GHG Roadmap.....	38
Accelerating NDC Implementation.....	40
TAPEE.....	40
3e. Sustainability.....	43
3f. Cross-cutting.....	44
Requests for the future.....	44
4. Lessons learned and Recommendations.....	45
4a. Lessons Learned.....	45
Lessons learned - Relevance, including project selection and positioning within the country.....	45
Lessons learned - Effectiveness, including internal processes as well as project reach.....	46
Lessons learned - Efficiency, including internal processes as well as facilitating stakeholder ownership....	47
Lessons Learned - Impacts and Sustainability.....	48
4b. Recommendations.....	49
Externally focused: Country engagement.....	49

Externally focused: Project selection and design	49
Internal Processes: Planning	51
Internal Processes: Budgeting	52
Internal Processes: Staffing and organization	52
Project Specific	52
4c. Linkages to previous evaluations.....	53
Annex A: Summary of Evaluation Approach	54
A1. Overview of the evaluation approach.....	54
Evaluation activities.....	54
Limitations to this evaluation.....	55
A2. Evaluation Questions	57
A3. Evaluation governance.....	60
Annex B: Theory of Change	61
B1. GGGI implementation approach, evidence and assumptions underpinning the Theory of Change	62
Annex C: Review of project logframes	70
Annex D: Data collection	73
D1. List of documents and data reviewed	73
D2. Stakeholders Consulted.....	74
D3. Interview topics by stakeholder group.....	75

1. Introduction

1a. Context

Overview of GGGI

Established in 2012, the Global Green Growth Institute (GGGI), with headquarters in Seoul, Republic of Korea, is an inter-governmental organization whose objective is to move member countries towards a model of green growth thus contributing to its vision of “A resilient world of strong, inclusive and sustainable growth.”

GGGI works across four thematic priority areas - energy, water, land use and green cities_ as envisaged by the Strategic Plan 2015-2020. As of January 2018, GGGI has operations in 26 countries.⁷

Overview of GGGI’s Evaluation Policy

The Strategic Plan identifies a set of strategic outcomes that reflect the intended green growth impact of GGGI’s work, which align with the development priorities of partner countries, as well as the Sustainable Development Goals and Paris Agreement on climate change.

A key task for GGGI is not only to support partners to achieve these outcomes, but also credibly demonstrate its contribution to such results. To help meet this challenge, an evaluation function was established in GGGI in late 2016.

In GGGI, the purpose of evaluation is to support the organization’s mission by: generating and harnessing evidence on green growth impact to inform the learning, improvement and accountability needs of GGGI, its members and its funders.

As a key component of results-based management, evaluation can help embed a culture of harnessing evidence on what works to inform decisions that deliver better green growth impact and value for money.⁸

Overview of this evaluation

As part of its annual evaluation planning, the Impact and Evaluation Unit of GGGI decided to commission an evaluation of the Thailand Country Program, which is the subject of this report.

The independent evaluation of GGGI’s Thailand Country Program was conducted from November 2017 to March 2018 and covered activities from 2014 – 2017.⁹ This evaluation followed the approach documented in the Evaluation Approach Paper (EAP) provided by the Impact and Evaluation Unit.^{10, 11} The evaluation activities included in-person and/or phone interviews with approximately two dozen stakeholders from GGGI, the Royal Thai Government, the private sector and academia.

⁷ www.gggi.org

⁸ GGGI, 2017. GGGI Evaluation Rules version 1.0. <http://gggi.org/site/assets/uploads/2017/11/GGGI-Evaluation-Rules-version-1.0.pdf>

⁹ Julia Larkin of IDEAS for Energy served as the independent evaluator.

¹⁰ <http://gggi.org/site/assets/uploads/2017/12/GGGI-Thailand-Country-Program-Evaluation-Approach-paper-design.pdf>

¹¹ A few components of the Evaluation Approach Paper were updated in the Evaluation Inception Report. For example, the evaluation questions and evaluation timetable were updated. The Evaluation Inception Report also included a table of interview topics by stakeholder type (See Annex C) and a draft table of contents for what became this Final Report.

1b. Purpose of this evaluation

The evaluation objective was to:

1. Assess the performance of the three pillars¹² of the GGGI's Thailand Country Program, including its impacts to date and the robustness of its theory of change; and
2. Make actionable recommendations to further improve its current and future delivery approach and impact.

The main audience of the evaluation is intended to be key Thai stakeholders, GGGI's management, Country Team, and members of the Management and Program Sub-Committee (MPSC).

1c. Key evaluation questions

This subsection contains a list of the five high-level evaluation questions addressing all five Organisation for Economic Co-operation and Development's Development Assistance Committee (DAC) criteria. The full list of questions and sub-questions is included in Annex A.

- A. How relevant and significant is GGGI program to the Thai Government's national and international green growth and climate change priorities? (DAC criteria: relevance)
- B. How effectively and efficiently is the program and its related outputs being implemented by GGGI and its main counterparts? (DAC criteria: efficiency and effectiveness)
- C. Is the program bringing about the desired policy, institutional and financial changes necessary to achieve the intermediate and strategic outcomes? (DAC criteria: impact)
- D. To what extent are the benefits generated by the program sustainable? (DAC criteria: sustainability)
- E. Have cross cutting issues such as safeguards and social inclusion been integrated into the program?

1d. Organization of the remainder of this report

The remainder of this report is organized into the following sections:

- Section 2 summarizes GGGI's Thailand Country Program.
- Section 3 documents the evaluation findings.
- Section 4 provides lessons learned and recommendations.
- Annexes to this report contain:
 - A: Summary of evaluation approach, including the full list of evaluation questions
 - B: Theory of Change
 - C: Comments on Project Logframes
 - D: Data Collection, including a list of documents reviewed and stakeholders consulted
 - E: A summary of stakeholder comments on the draft report as well as any action taken.

¹² GGGI's three pillars target addressing (A) policy (B) capacity and (C) financial barriers.

2. Overview of GGI Thailand country program

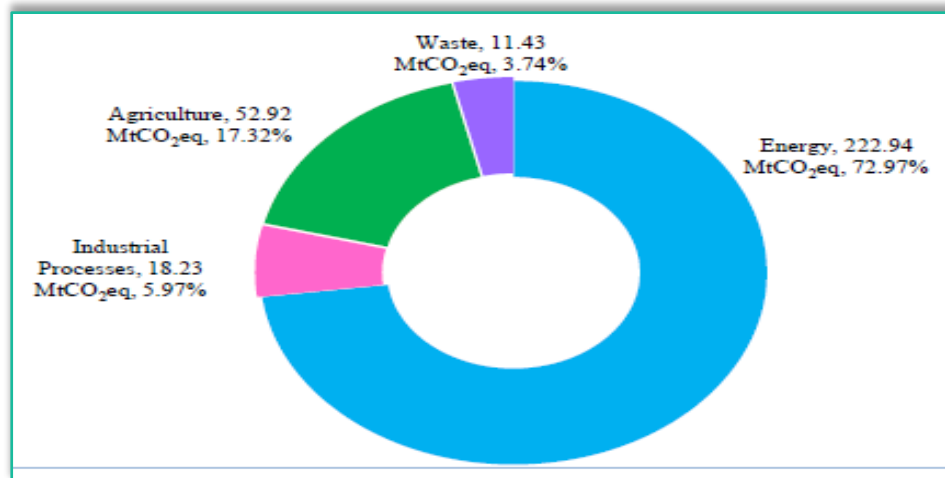
2a. Development context

Prior to the Asian financial crisis in 1997, Thailand's GDP grew at an annual average rate of 7.5% allowing the country to successfully reduce its poverty rate from 67.7% in 1986 to 35% in 1996. **The rapid economic growth was driven by a major 'structural transformation' notably the transition from an agriculture-based economy to an industrialized one**¹³. The sustained economic growth in the 1980s allowed Thailand to become the second largest economy in the ASEAN region and to graduate to upper middle-income country status in 2011.

The economic crises in 1997 and 2015, and the progressive exacerbation of political instability, strongly affected Thai exports and industrial production, contributing to a drastic slowdown of the country's economic growth. Currently, Thailand is facing a middle-income trap, suffering from lack of reforms, limited investments and decreased competitiveness compared to other ASEAN countries¹⁴. **The economy is still heavily relying on exports, and the services and energy-intensive industrial sector** continue to be the major sources of economic growth accounting for almost 55.8 % and 35.8% of GDP in 2016 respectively¹⁵.

One distinctive aspect of Thai economic development has been **the gradual and constant increase of GHG emissions**. From 1990 to 2011, CO₂ emissions per capita increased more than 2.5 times. Ranked 20th in total GHG emissions in the world and 5th in East Asia¹⁶, Thailand's net GHG emissions in 2011 was 234.6 MtCO₂e of **which 72.97% from the energy sector**, 17.32% from agriculture, 5.97% from industrial process and 3.74% from waste.

Figure 1: Total GHG Emissions (excluding LULUCF) by Sector, 2011¹⁷



¹³ World Bank, 'Thailand systematic review diagnostic', April 2016

¹⁴ World Bank, 'Thailand Economic Monitor', January 2015

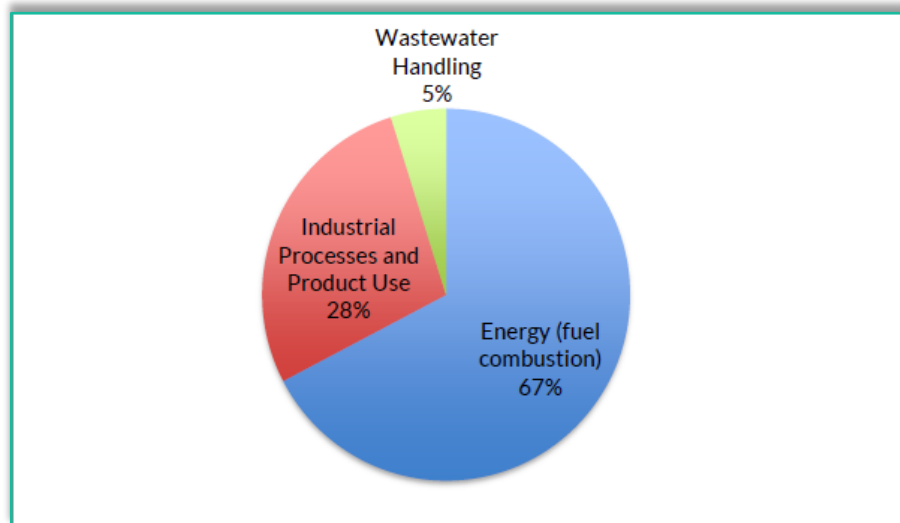
¹⁵ World Bank, GDP - Thailand data, <https://data.worldbank.org/indicator/NV.IND.TOTL.ZS?locations=TH> and <https://data.worldbank.org/indicator/NV.SRV.TETC.ZS?locations=TH>

¹⁶ World Bank, 'Thailand: Green energy for low carbon growth', 2012

¹⁷ Idem

Among the sectors, the **industry is the major contributor to GHG emissions**, accounting for 27.9% of total GHG emissions in 2011. The high level of **GHG emissions in the industrial sector is mainly due to high energy consumption, especially of ‘brown’ energy¹⁸, and high energy intensity rate¹⁹**. During the period 2010-2014, data revealed a steady upward trend of both energy consumption and energy intensity growth rates²⁰.

Figure 2: GHG emissions from industrial sector by source, 2011²¹



Despite the efforts undertaken by the Royal Thai Government, the uptake of energy efficiency (EE) and renewable energy (RE) in the industrial sector is still limited. A variety of economic and non-economic barriers such as lack of knowledge, limited access to finance, weak institutional settings and policy implementation are preventing industries to reap the benefits of introducing EE/RE measures.

The predicted exacerbation of climate change in Thailand, classified as one of 16 countries in the ‘extreme risk’ category, is expected to have serious adverse implications on both future economic development and the prosperity generated by past economic growth²².

2b. Key government institutions and policies related to low-carbon growth in Thailand

The Royal Thai Government has recognised that it is fundamental to act on climate change to sustain its economic growth and modernization, keep poverty rates low and reduce income inequality. In 2007

¹⁸ Despite the recent increase of renewable energy use, the industrial sector still primarily relies on the use of petroleum products and coal (38% combined)

¹⁹ Department of Alternative Energy and Energy Efficiency Development, ‘Thailand Energy Balance’, 2014

²⁰ Energy intensity is the proportion of energy consumption per GDP unit

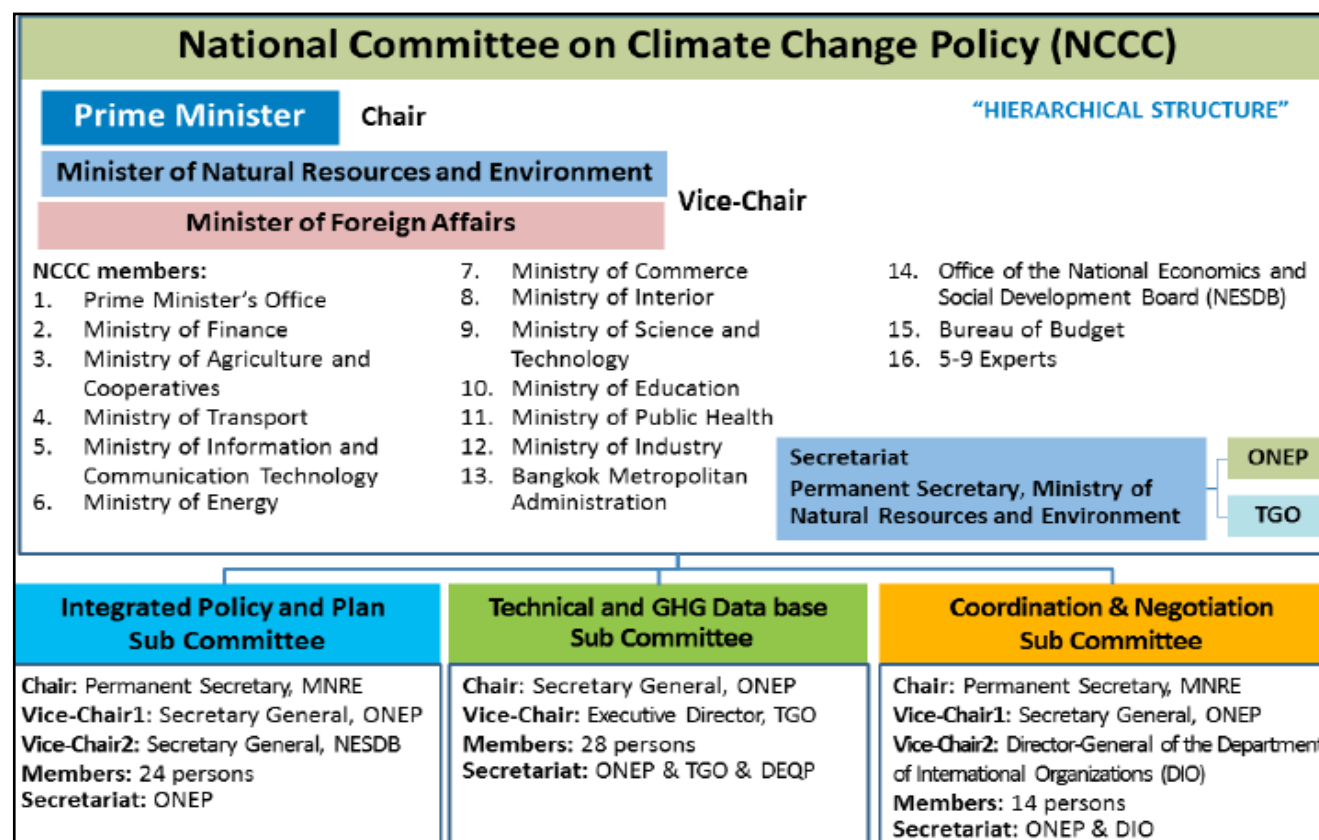
²¹ Derived from ONEP source - GGGI, ‘NDC Industrial Action Plan’, July 2017

²² Idem

a **National Committee on Climate Change** (NCCC), chaired by the Prime Minister, was set up to (i) formulate climate change strategy; (ii) determine Thailand’s national position towards international agreements; and (iii) monitor and evaluate implementation of national climate change initiatives.

The NCCC is supported by three sub-committees, namely the Integrated Policy and Plan Sub-Committee, Technical and GHG Database Sub-Committee, and Coordination and Negotiation Sub-Committee. The overall institutional setting is shown in the figure below²³.

Figure 3: Structure of the National Committee on Climate Change



The Ministry of Energy and the Ministry of Industry, in cooperation with the Office of Natural Resources and Environmental Policy and Planning (ONEP) under the Ministry of Natural Resources and Environment, play a crucial role in the management of the GHG emissions reduction in the industrial sector. ONEP is the national focal point for climate negotiations.

In addition to a solid institutional framework, a variety of reforms and initiatives have been pursued by the government to deal with climate change at both national and international level. At the **national level**, the following policies and plans have been guiding the country in its efforts toward a more sustainable development path:

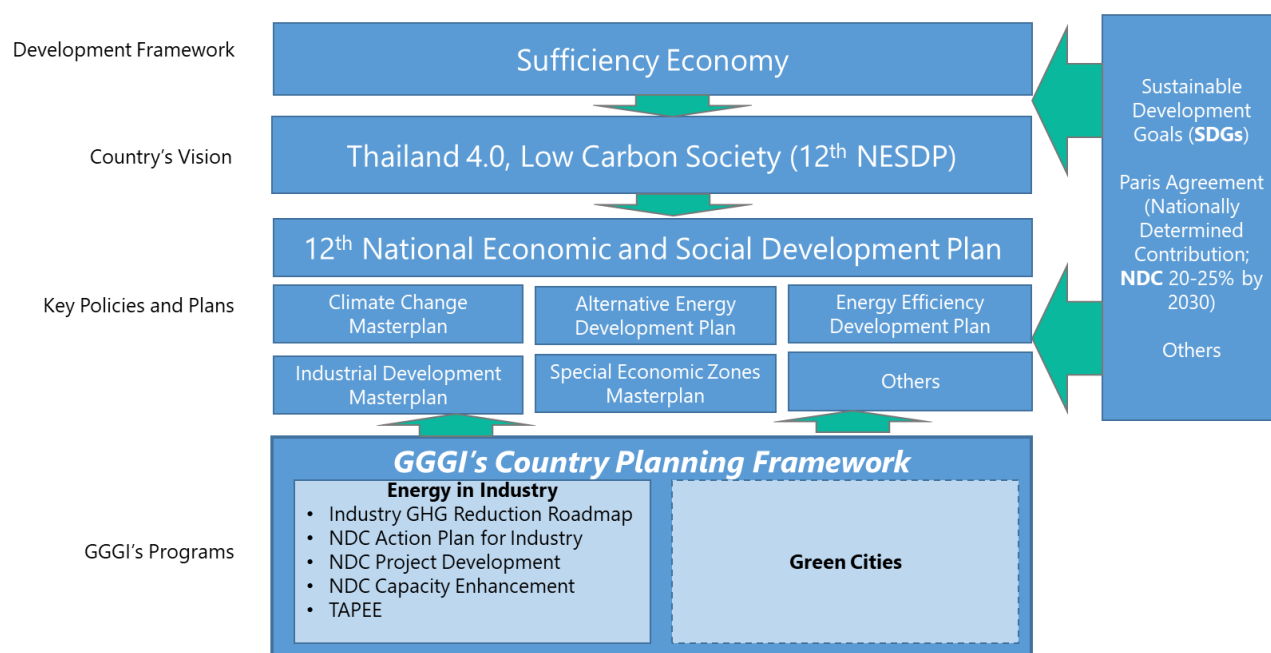
²³ ONEP, 'Thailand First Biennial Update Report to UNFCC', December 2015

- The **Twenty-Year National Strategy (2017-2036)** sets targets related to six major development areas including ‘environmental friendly growth’. The Strategy is implemented through five-year National Economic and Social Development Plans (NESDPs) guiding budget planning and allocation as well as detailed implementation by relevant ministries and downstream organisations. The current **12th NESDP (2017-2021)** is meant to guide Thailand to become a low carbon society and it includes, among its priority areas, ‘Green growth and sustainability’ and ‘Infrastructure and logistic development’. As for green growth, the strategy aims to reduce GHG emissions by 7-20% by 2020 (compared to BAU-2005) and increase climate resilience and adaptation. In the area of ‘Infrastructure development’, the strategy promotes the reduction of the country’s energy intensity from 8.22 to 7.70 ktoe/billion baht and the increase of renewable energy use by 17.34% by 2021 (compared to BAU-2005).
- The 12th NESDP objectives are consistent with the **Climate Change Master Plan (2015-2050)**. The Master Plan is a long-term policy framework based on the following three pillar strategy: adaptation, mitigation of GHG emissions and strengthening of human resources and institutional capacities. In terms of mitigation, the Master Plan promotes: participation of every sector and level in reducing greenhouse gas emissions; efficient use of energy and resources; and knowledge development on environmentally-friendly manufacturing processes, consumption and services. The Master Plan also sets the following targets: 7-20% reduction by 2021 of overall GHG emissions compared to BAU projections (2005), and 25% share of renewable energy in the energy supply and 25% of energy intensity reduction by 2030.
- In addition to the above high-level strategies and policies, the Royal Thai Government is also implementing more specific action plans including: the ‘Energy Efficiency Plan’ (EEP) (2015-2036), the ‘Alternative Energy Development Plan (AEDP)’ (2015-2036), and the ‘Power Development Plan (PDP)’ (2015-2036). The AEDP and the PDP set targets for the use of renewable energy as follows: 30% renewable in the final total energy consumption by 2036 and 20% share of power generation from renewable sources by 2036. **The Energy Efficiency Plan** sets a target for energy intensity reduction of 30% by 2036 (baseline 2010) to be achieved in four economic sectors: industry, commercial and government buildings, residential and transport. As for the industry sector, the EEP identifies several prioritized activities such as enforcement of the Energy Efficiency Resource Standards (EERS) for large energy producing businesses, including the electricity supply industry, allocation of subsidies for energy savings and/or peak load reduction, benchmarking energy intensity, strengthening energy service companies (ESCOs), providing information on energy efficiency measures and technology and providing training courses for professionals in the field of energy efficiency. For the period 2011-2015, the Royal Thai government has allocated THB 29.5 billion of which 37% went to the industry sector to support the implementation of the above energy efficiency measures.
- The Royal Thai Government has also adopted the ‘**Thai Economy 4.0: Transforming toward a Value-Based Economy**’ focusing on innovative industries and services. This policy emphasises the need for the industrial sector to become ‘greener’ and more competitive by using resources and energy more efficiently and effectively.

At the **international level**, the Royal Thai Government is strongly committed to deliver on the Sustainable Development Goals (SDGs), which are well integrated in the 12th NESDP strategy, and to achieve the Nationally Appropriate Mitigation Action (NAMA) targets which include the reduction of GHG emissions by 7-20% by 2020 (compared to BAU-2005). According to the Second Biennial Update Report of Thailand²⁴, submitted to the UNFCCC in December 2017, it is reported that Thailand had already achieved its NAMA target of 7% reduction in GHG emissions over the BAU level.

More recently Thailand has confirmed his commitment to fight climate change by ratifying the **Paris Agreement** and submitting its **Intended Nationally Determined Contribution (INDC)**. The country has set a new ambitious GHG emissions reduction target namely a 20% decrease from projected business-as usual (BAU 2005) level by 2030. Subject to adequate support by the international community²⁵, the target could increase up to 25%. Since May 2016, the country has been working on developing an ‘NDC Roadmap’ which divides the sectors into 3: 1) energy and transportation, 2) waste and 3) industrial processes and product use (IPPU). The Roadmap has been already approved by the National Climate Change Committee and by the Cabinet.

Figure 4: Overview of Thailand’s planning priorities linked to GGGI activities



²⁴ Source: http://unfccc.int/files/national_reports/non-annex_i_parties/biennial_update_reports/submitted_burs/application/pdf/347251_thailand-bur2-1-sbur_thailand.pdf

²⁵ ONEP ‘Thailand Intended Nationally Determined Contribution (INDCs) submission to UNFCCC’ October 2015

2c. Key donors and organizations focusing on climate change and industrial sector

Thailand's efforts in implementing climate change adaptation and mitigation measures have been supported by several international and bilateral initiatives²⁶. Projects related to climate change mitigation include: UNDP 'Low emissions capacity building program (LECB)'²⁷, GEF 'Industrial Energy Efficiency (IEE) project'²⁸, German International Climate Initiative (IKI) 'Support to the development and implementation of the Thai Climate Change Policy'²⁹ Switch-Asia (EU) 'Promoting sustainable production and consumption: policy component'³⁰ and GIZ 'Greening Supply Chains in the Thai Auto and Automotive parts industries'³¹. These projects are complementary to GGGI's activity areas.

2d. Main pillars of the GGGI Country program in Thailand

GGGI cooperation with the Royal Thai Government started in August 2014 with the implementation of the project 'Industry Greenhouse Gas Reduction Roadmap to support implementation of Thailand Climate Change Master Plan'. [Focus Area 1 below.] In September 2015, GGGI's partnership with Thailand was further consolidated by the signing of a five-year Memorandum of Understanding on Green Growth Cooperation. In November 2015, with the Cabinet approval, Thailand became the 26th member of GGGI.

Activities in Thailand have transitioned from a project by project approach to a more coherent program of activities addressing three pillars: policy making, capacity building and facilitating financing. The program is also now underpinned by the Country Planning Framework for Thailand (CPF)³².

To date, there are three main pillars of the GGGI Country program in Thailand, each at a different stage of implementation and with different Focus Areas. The work delivered by GGGI since 2014 has contributed mainly to Focus Areas 1 and 2, as summarised below:

- **Focus Area 1 (GHG Roadmap): Industry Greenhouse Gas Reduction (GHG) Roadmap to support the implementation of Thailand's Climate Change Master Plan (2014-2016):**

GGGI's first project in Thailand was the "GHG Roadmap," which was jointly conceived by ONEP and GGGI and financed by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) under the International Climate Initiative (IKI). The project was designed to complement the Climate Change Master Plan and sought to:

- To produce a roadmap report recommending emissions reduction pathways for three selected subsectors (palm oil, auto parts, frozen seafoods).
- To provide a credible and robust evidence base on which policymakers and other stakeholders can base their decisions to achieve cost-effective and appropriate emission reductions.

²⁶ The full list of projects related to climate change adaptation and mitigation implemented in Thailand from 2012 to 2017 is available in ONEP, 'Thailand First Biennial Update Report to UNFCCC', Appendix 2, December 2015

²⁷ More detailed information on LECB available at <http://www.lowemissiondevelopment.org/lecbp/countries/thailand>

²⁸ More details about IEE are available at: <https://www.thegef.org/project/cf-industrial-energy-efficiency-0>

²⁹ More detailed information about this project is available at: www.giz.de/en/worldwide/45116.html

³⁰ More details about this project are available at: www.scp-thailand.info/index.php

³¹ More information about this project is available at www.thai-german-cooperation.info/project/content/9

³² <http://gggi.org/report/thailand-country-planning-framework-2017-2021-2/>

- To enhance the capacity of policymakers and other stakeholders to ask by recommending short-, medium-, and long-term actions that will reduce the implementation barriers of emission abatement options. For example, the final report recommended the development of long-term agreements (LTAs) with the targeted industrial subsectors.

The development of the GHG Roadmap was guided by a steering committee, consisting of government officials, industry representatives and technical experts, which was chaired by ONEP. The funding proposal to the BMUB had already targeted the industrial sector. After reviewing the Diagnostic Report commissioned by GGGI³³, the steering committee selected the three specific subsectors to be highlighted in the Roadmap based upon a several criteria, such as level of potential, data available, and lack of existing analysis addressing that subsector. This activity was completed in July 2016 and the GHG Roadmap has been published online.³⁴

• **Focus Area 2 (NDC): Accelerating implementation of Thailand Nationally Determinate Contribution (2016-Ongoing):**

GGGI is assisting the Office of Natural Resources and Environmental Policy and Planning (ONEP) in mainstreaming the high-level emissions reduction targets set in the Thailand NDC roadmap into more specific industrial action plans. In this respect, the project is expected to:

- (A) Develop an NDC Action Plan for Industrial Sector focusing on energy efficiency improvement (completed),
- (B) To demonstrate the development of bankable green projects in the industrial SME sector (in progress; 2 projects anticipated), and to
- (C) Provide capacity building to industrial SMEs (in planning stages) to both government and private sector on NDC targets implementation.

Regarding the development of bankable green projects, the team has contracted with a local firm to help identify viable candidates who are likely to implement the recommended measures who will receive investment grade EE/RE audits. Once the audits have been completed (anticipated in Spring 2018), the GGGI team and the contractor will work with the SME to identify and secure financing from local sources.

The country team is expected to develop more specific projects under GGGI's Work Program and Budget 2019-2020.

³³ GGGI hired a contractor, Ecofys, to draft the GHG Roadmap and related inputs, including the Emissions Projection Report and the Technical/Economic Analysis Report.

³⁴ See <http://gggi.org/country/thailand/>

- **Focus Area 3 (TAPEE): Thai auto parts supply chain development through energy efficiency (TAPEE) (2016-Ongoing):**

The TAPEE project is designed to be a comprehensive energy efficiency (EE) finance program to address multiple barriers to EE investment for SME auto parts manufacturers, the objectives are to:

- (A) Design an EE investment structure
- (B) Create a risk-sharing facility
- (C) Develop an on-bill financing (OBF) mechanism through a local utility, and
- (D) Develop a pipeline of bankable projects, resulting in 1-2 successful projects during TAPEE itself.

TAPEE has faced delays and is still being developed. However, the scope has been expanded to include SMEs in other industrial sectors with sufficient potential.

Staffing

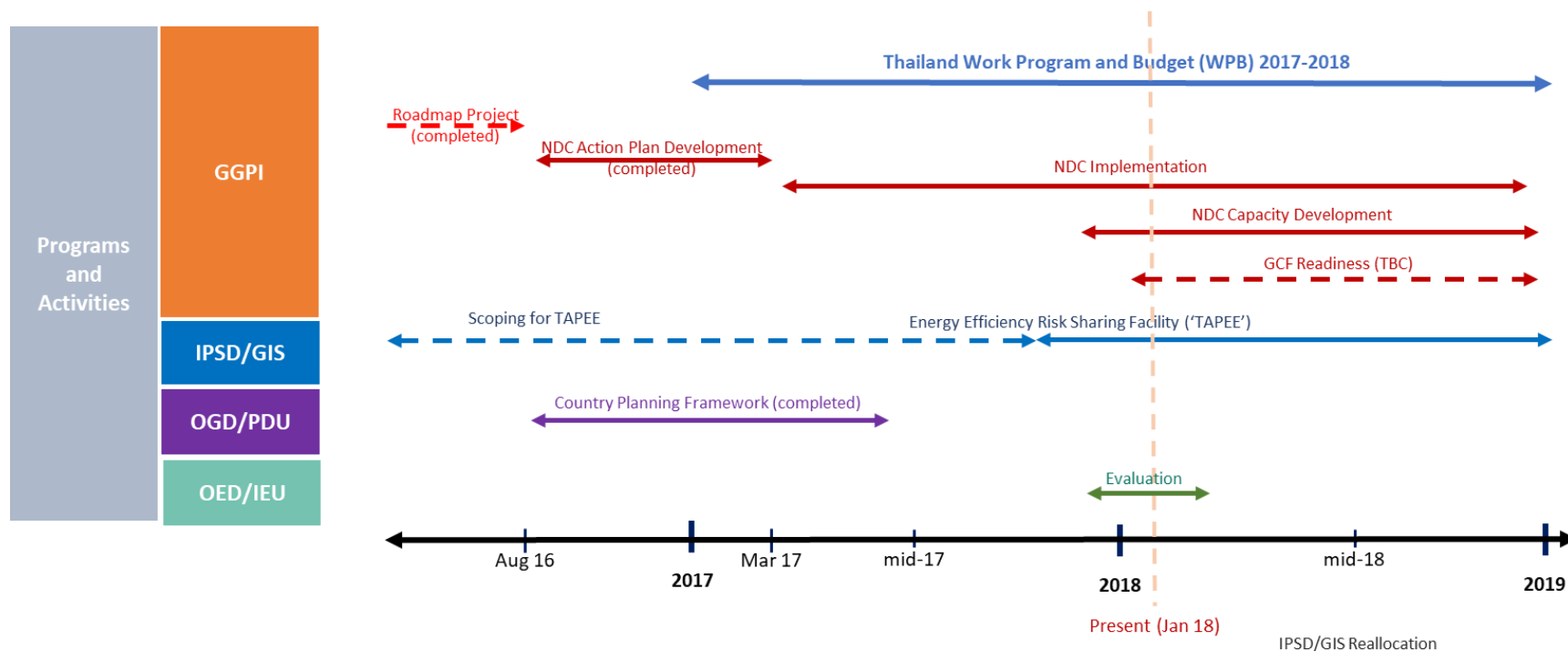
The office opened after the first project was launched in August 2014. The Thailand Country Team currently consists of three staff based in Bangkok:

- Khan Ram-Indra as Country Representative, full-time since August 2014
- Pasnakorn Maikate (Mai) as Stakeholder Engagement Manager, full-time since October 2014.
- Nontaya Krairiksh (Noey) as GHG and Sustainability Manager, part-time from October 2014, then full-time since March 2015.

The TAPEE program was managed by Masahide Yamaguchi (Marco) of Green Investment Services (GIS) through February 2018.

Figure 4 illustrates the current planning framework for the Thailand Country Program and how activities link to other GGGI units. It shows the end of the GHG Roadmap project, as well as the complete time frame for the Acceleration of the NDC and TAPEE components.

Figure 4: Current planning framework for the Thailand Country Program



The abbreviations for areas within GGPI are as follows:

- GGPI = Green Growth Planning and Implementation Division, within which sits the Thailand Country Team
- IPSD = Investment and Policy Solutions Division, within which sits GIS
- GIS = Green Investment Service
- ODG =Office of Director-General within which sits the PDU
- PDU = Program Development Unit
- OED = Operations Enabling Division, within which sits the IEU
- IEU = Impact and Evaluation Unit

3. Findings

This section presents the evaluation findings organized by DAC criteria, with a subsection addressing over-arching issues, such as safeguards and inclusivity, at the end.

3a. Relevance

Evaluation Question: Relevance
A. How relevant is the GGGI program to the Thai Government’s national and international green growth and climate change priorities?

The Thailand Country Program is highly relevant to the Royal Thai Government’s national and international green growth and climate change priorities overall. The Country Team regularly engages with the formal country counterpart, ONEP, as well as periodically with other key government, academic and industry stakeholders to ensure their activities are not only consistent with the Royal Thai Government’s priorities and formal initiatives, but also to find areas where they can add value, by providing complements and synergies with existing activities of the government and other initiatives.

There is a concerted effort by the Country Team to avoid direct duplication, which at times limits the options for GGGI. It is the formal responsibility of the government counterpart to coordinate with the different programs and initiatives active in Thailand to facilitate synergies and minimize overlaps. However, there appears to be at least partial overlap in broad scope, though not specific activities with other initiatives, as discussed below. GGGI also must find a niche that facilitates positive relations with other much larger organizations, such as the suite of support offered by the National Governments (e.g. Japan, Germany or the Netherlands) or UN programmes.

National stakeholders want help increasing public awareness and engaging the private sector. Royal Thai government officials are confident that if they implement planned measures, they will meet their targets. Yet, all the policies are linked to public engagement. Stakeholders widely acknowledged that more public support, such as increased demand from public for green products is needed to drive the measures.

While only modest progress has been made so far, several plans address ways to increase public awareness and involve the private sector. Yet, this issue of transitioning from plans to real implementation is a significant unknown for stakeholders. A few speculated that industry doesn’t want to get involved in dialogues as they are afraid the government will try to make them commit to actions they want to avoid.

Multiple government stakeholders commented that they were seeking assistance from organizations, such as GGGI, that bring existing knowledge of, as well as credibility working with, the private sector. They expressed that if GGGI can influence the private sector role, changing the private sector's level involvement from the past, and develop a business model and implementation strategies that would be very helpful. Local authorities lack tools to go from knowledge to implementation.

GGGI is viewed as having access to technical and economic knowledge, and a broad network as well as appropriate solutions that have been successful elsewhere that they can share with Thailand. For example, one reason for initial interest in engaging with GGGI was the possibility of facilitating dialogue and technology transfer and/or financing from the Republic of Korea (RoK), as GGGI is based in the RoK. Thailand is seen as having more capacity than the RoK in the industrial sector, for which they could offer capacity building to RoK in exchange for receiving financing or technological support.

The Thailand Country Program is now focused primarily on facilitating GHG emission reductions in the industrial sector, especially for small and medium-sized enterprises (SMEs). All projects of which are relevant to both Thailand and GGGI's priorities.

Frequent turnover leads to shifting priorities for the Thailand Counterpart. An ongoing challenge faced by the Country Team is the frequent turnover of high-level positions within the government, including with the Director of ONEP. There is a practice of rotating approximately every two-years. While the overall support for addressing climate change has remained, this can easily mean that the specific priorities for GGGI support had discussed with the previous director may not be shared by the new Director. Given the GGGI's budget planning process as well as the length of time it takes to implement specific projects, there is an ongoing risk that the outputs will be less supported, or not followed up upon by the most relevant government counterpart.

The relatively frequent elections in Thailand also create long-term uncertainty. While the current military government has been in place since 2014, which is a long time for Thailand, there is always an expectation that elections are coming soon, leading to short-term decision-making.

An external stakeholder who also provides support to the Royal Thai Government acknowledged the turnover issue as well and mentioned that they have increasingly focused on incremental activities that can achieve results within six months to recognize the realities of this frequent change.

Country Planning Framework is somewhat helpful, yet burdensome. The Thailand Country Team has also recently gone through the process of developing a Country Planning Framework (CPF). The process of development seeks to align both the country's priorities with GGGI's to provide a context for future planning. The process involved interviews with numerous stakeholders within and outside the government as well as ensuring alignment with the GGGI's strategic mission and priorities.

The CPF states that GGGI will support Thailand in the delivery of its NESDP, NDC, as well as scaled-up renewable energy and energy efficiency targets through two key strategic outcomes:

1. Increased investment in renewable energy and energy efficiency in the industrial sector catalyzes the Green Energy Transition in Thailand.

2. Green city development in Thailand's Special Economic Zones results in low-carbon, climate-resilient and livable cities that contribute to sustainable economic development and fair regional income distribution.

While these themes are still quite broad, having clear areas of focus formally documented has been helpful for both the Country Team and government representatives. However, there are some sections that are rarely used by any of the stakeholders, if at all. For example, the figures used to quantify outcomes in the CPF appear to be based on substantial assumptions and are not seen as meaningful. The development process was found to be quite time consuming and shifted focus away from ongoing projects.

Prior to development of the CPF with its priority themes for the country, ongoing activities were treated more as a set of projects, that were not necessarily linked. As the CPF is quite new, the existing projects map to the energy efficiency portion of the first theme, but future activities would be expected to address both themes.

The Country Team reports that they now refer to the CPF when considering activities for the future. However, the usage of the CPF appears to be inconsistent to date. There have been recent examples where ideas originating from GGGI HQ or other divisions that did not appear to sufficiently consider the CPF for Thailand.

There is some confusion about GGGI's role with government stakeholders not in the counterpart agency. Some government stakeholders who are not in ONEP and therefore do not receive regular internal updates on GGGI activities wondered why GGGI is not supporting a particular initiative of theirs. For example, in one large government agency where multiple stakeholders were interviewed – one stakeholder recalls telling GGGI they shouldn't focus on a particular type of capacity building for industrial customers because that is already being covered, while another stakeholder at that agency expressed they would be happy with more support in that area and wondered why GGGI focused on other activities. Both stakeholders had agreed the issue was a priority area and that their staff were actively addressing it. GGGI had agreed with the one representative to not focus on this issue, since it was already being covered, but this message was not transmitted to the other representatives.

GGGI's internal processes, budget, and structure can limit support options. Multiple stakeholders at ONEP noted that only certain types of support are feasible, due to GGGI's small budget as well as the size of the Country Team relative to other initiatives. For example, one government stakeholder said that while GGGI is an option for medium or longer-term projects, they are relatively inflexible and limited in the short-term because of the way the funding is allocated. If something new comes up or priorities shift significantly from the initial project design, GGGI is unlikely to be able to accommodate it as it was not included in the planning process. Also, GGGI has so much less funding and staff available, only certain types of projects would make sense.

As discussed above, the GHG Roadmap was jointly conceived by ONEP and GGGI and financed by BMUB IKI. The project was designed to complement the Climate Change Master Plan by addressing one of its objectives. The GHG Roadmap grew out of discussions with ONEP stating that the Royal Thai

Government was interested in assistance translating it into more specific plans. A steering committee chaired by ONEP that included government, academic and private sector representatives provided direction and reviewed draft outputs of the GHG Roadmap, which facilitated its relevance. However, **the GHG Roadmap does not contain a clear vision of who the core audience is nor include a formal mechanism for follow up** by an implementing agency now that ONEP's (planning) role is complete. This reduces its relevance and uptake. This issue is discussed further below.

The **Accelerating NDC Implementation project grew out of a request from the country counterpart at ONEP**, who was interested in ways to operationalize the goals set forth in Thailand's NDC. The Director serving as counterpart has since changed and the current Director at ONEP has also initiated a broader NDC planning initiative that focuses on all four areas in Thailand's NDC, leading to some overlaps. The Thailand Country team has worked with ONEP to align their existing NDC Action Plan targeting the industrial sector only with the broader initiative, which has led to some delays, but ultimately increased relevance. The second component that includes capacity development and demonstrating bankable projects for industrial SMEs that could include EE or RE, is still in progress.

TAPEE had its origins in the GHG Roadmap project, which focused on three industrial sectors, including the auto parts industry and is still in the late design/early implementation phase. The focus continues to be primarily on the auto-parts industry, yet has also become more flexible to consider similar industries as part of the goal to aggregate similar projects to increase attractiveness to ESCOs and/or other financial partners.

The ESCO market upon which TAPEE is based is largely undeveloped. Numerous stakeholders reported that the ESCO market is still a big challenge in Thailand, despite support from Department of Alternative Energy Development and Efficiency (DEDE). Local banks have little interest in EE due to the size of projects, perception of risks, etc. They noted the banks are much more receptive to renewable energy projects, which are quite tangible and easier to document. Local businesses are highly reluctant to take on the risk and capital investment of traditional ESCOs, and instead are seeking a third-party to provide loans and/or absorb the risk of non-payment.

There is direct overlap within GGGI between Accelerating NDC Implementation and TAPEE, which are both seeking to develop approximately two projects each to demonstrate GHG emission reductions for industrial SMEs. There are some differences in approach that lead to testing different program concepts, but both focus on identifying likely businesses, soliciting their participation, conducting investment grade audits and facilitating financing for the projects.

TAPEE grew out of an idea the GIS team within GGGI had to develop an on-bill financing facility using one of the public utilities and ESCOs or other financiers. Approximately 220 investment grade audits will be conducted at facilities throughout the country with sufficient energy consumption and meeting other sample characteristics to create an appropriate baseline to support aggregation of similar projects. GIS has hired different subcontractors to conduct the audits and develop the on-bill finance facility with Provincial Electric Authority (PEA). A third subcontractor to focus on legal issues is anticipated for the future.

So far, PEA has agreed to the on-bill finance mechanism via issuing an additional bill with the energy service charge, but will not directly carry risk or otherwise finance the projects. Therefore, other project financing, such as via a combination of ESCO financing and financing with local banks is anticipated. Also, GIS is exploring whether some sort of credit guarantee mechanism is needed and feasible, such as one supported by an international funding source like the Green Climate Fund or NAMA Facility. GIS has been in contact with other countries with GGGI presence outside of Thailand, who have expressed interest in replicating a similar model, if found to be successful in Thailand.

The search for bankable projects under the Accelerating NDC Implementation project uses a conventional project development approach that seeks to screen potential candidates at multiple stages for GHG potential and likelihood of implementation and narrow the number of candidates that receive services at the next stage. The Country Team is working closely with industry representatives to identify the most promising end user profiles and industry subsectors. They ultimately decided to deprioritize the auto parts industry as approximately 80% of its SMEs are focused on parts relating to the internal combustion engine. With the anticipated rise in electric vehicles, some are sceptical that there is sufficient life remaining in this subindustry to invest.

After review of data available for a large list approximately 50 were approached, with 9 walkthrough audits conducted, which is expected to lead to 2 investment grade audits for candidates with both sufficient potential and indication of willingness and viability to implement. The country team and their subcontractor will work closely with these candidates to secure financing from local banks or more broadly promote actual investments.

3b. Effectiveness

Evaluation Question: Effectiveness
B. How effectively is the program and its related outputs being implemented by GGGI and its main counterparts?

GGGI is still relatively new and therefore unknown in Thailand and stakeholders are still wondering what they can deliver – technically, but more importantly financially – in the longer-term. The Country Team has engaged in periodic outreach activities including different government stakeholders and other donors/projects, in addition to the formal stakeholder engagement planned for each project. However, even government stakeholders that had been engaged multiple times did not necessarily remember GGGI very well or at all. The GGGI Country Team periodically consults industry representatives, but progress toward increasing dialogue between industry and government is limited. All different types of stakeholders noted that GGGI is not really known yet, with several suggesting they do more to increase visibility.

The Country Team feels substantial pressure to prove themselves technically and demonstrate they can deliver effective support, including funding for their activities. They noted that if they had more funding, they would engage in more capacity building activities which would not only deepen the reach of the outputs, but would also facilitate becoming better known.

There is posturing within and between government entities as well as other stakeholders in Thailand, which at times limits GGGI's effectiveness. Several stakeholders commented on the dynamic from their perspective, saying it hinders their work as well. For example, if a representative from one key stakeholder group is going to attend a meeting, the representative of the another will not come, even if they had previously RSVP'd positively.

As the Country Team coordinates closely with ONEP on who to invite to formal stakeholder engagement sessions on projects, the priorities for any meetings as well as the invitation list is not necessarily in their control. As is appropriate, they can suggest but ultimately defer to ONEP (or other government entity organizing).

ONEP is also the formal counterpart that decides on the priorities (of their request) to GGGI. The Country Team must tread very carefully to maintain relationships and avoid offending either ONEP or other interested government entities.

Yet, diverse **stakeholders interviewed generally had a positive view of the GGGI staff and their outputs so far**, including their main counterparts at ONEP. The GGGI Country Team is located in the same building as their direct government counterparts, as well as with representatives from other initiatives, e.g. GIZ. This proximity appears to facilitate trust as well as familiarity.

However, some stakeholders refused to be interviewed for this evaluation. A few appeared to be simply unavailable during the data collection period, as would be expected. Most concerning, however, were DEDE who has been reluctant to engage with GGGI, and some representatives in the private sector who had last been engaged under the TAPEE outreach. The informal feedback received from these private stakeholders was that as GGGI hadn't really delivered anything yet, these stakeholders were no longer going to actively engage with GGGI (such as participating in the evaluation), preferring to wait and see.

The GHG Roadmap and NDC Acceleration outputs to date, as well as the process for developing them, were also generally seen positively with only a few criticisms; most of which seem reasonable given the process and trade-offs that needed to be made when developing outputs. For example, one academic stakeholder commented that the GHG Roadmap used a foreign consultant (Ecofys, with recognized international expertise in developing GHG emission reduction potentials, including for the IPCC, who did have a Thai subconsultant) and should have also had someone from Thailand as part of the team subcontracted who could provide more local context, apparently not realizing there was one. However, this stakeholder did not provide a specific example of how this would have improved the document, and several other stakeholders, including other academics, who were queried on this point did not share the criticism – yet all commented on the limited data available for Thailand. It is also noteworthy that all of the draft deliverables were reviewed by the GGGI Country Team as well as the Steering Committee made up of a diverse panel of Thai nationals.

Stakeholders have been impressed that the Country Team has been able to gain meaningful participation in workshops from industrial groups. Also, the stakeholder engagement has helped tailor the outputs to the audience and provide a forum to test viability of innovative concepts. The stakeholder engagement relating to specific projects is well documented. The main outputs so far have generally addressed the desires of the stakeholders for that specific document type. The stakeholder engagement process has also provided opportunities to discuss the appropriateness and viability of different approaches before operationalization.

Examples of innovation are mixed, but this seems appropriately tailored to the context. In terms of innovation, the methodology used in the GHG Roadmap was new for Thailand and could serve as a template for replication in other sectors, though the specific measures recommended were not necessarily new to stakeholders. However, a few stakeholders noted that the methodology used for the calculations in the GHG Roadmap are insufficiently clear to replicate.

The bankable projects component of the Accelerating NDC Implementation project uses a conventional project development approach, yet with more active engagement of industrial sector representatives in identifying candidates than is typically seen in Thailand. The TAPEE approach of using an existing on-bill financing model in a new way is seen as innovative by some stakeholders, as is the credit risk guarantee mechanism being considered, though it is also seen as complicated. The approach to TAPEE is still developing and has already been modified over time in response to feedback from stakeholders on what is viable.

As noted elsewhere, **shifting funding as well as sources that are specific to concrete deliverables have limited the Country Team's ability to adapt** to feedback and evolving stakeholder needs. For example, once the national NDC Roadmap concept was established by the ONEP, the Country Team needed to adapt their approach to the Accelerating NDC Implementation project. However, the GGGI planning and budgeting approach meant that they needed to do this while still retaining the specific concept of an NDC Action Plan – when a more radical shift going deeper into implementation issues would likely have been more uniquely positioned to add value. The Country Team also noted that there have been multiple occasions where they theoretically had sufficient funds in total, but the inability to shift funds meant they did not have the right funding for the needed activity.

The stakeholders almost universally mentioned that while high-level plans were fine, what is really needed now is specific implementation strategies and examples of success, saying this is what they do not know how to do. Stakeholders reported that there are a variety of goals and plans out now, and that large businesses, including industry, generally know what to do and/or have the resources to do so if sufficiently motivated. However, there is less than expected uptake of existing opportunities and ownership of the need to do their part to reduce GHG emissions is still low – unless already motivated by direct client/customer demand or international norms for their subsector.

Lack of formal follow up mechanisms for GHG Roadmap and NDC outputs may limit their effectiveness. Perhaps, the most significant criticism that GGGI has limited ability to address now is the lack of follow up mechanism for the GHG Roadmap and NDC Action Plan for the Industrial Sector. There is no clear owner within the government now that these documents are complete, which limits their usefulness and therefore effectiveness. In the case of the GHG Roadmap for example, it was the Project Steering Committee's decision to exclude a section assigning 'owners' to action items as it was seen to be too sensitive. Also, the funding for the GHG Roadmap has been depleted and only covered the activities leading to finalization of the report.

Stakeholders reported that it would be a shame if the GHG Roadmap were not followed up upon, yet provided few examples of it actually being used so far. The most notable examples came from a stakeholder focused in a particular industry who noted being able to look up the potential for the industry and key GHG emission reduction measures identified for it. He mentioned wanting to share experiences with GGGI to see if there were gaps, that he and his industry could incorporate. However, the stakeholder noted that none of the suggestions heard were new to those in the industry.

While **TAPEE is still developing, the feedback from stakeholders was more uneven.** It is too early to assess how effective the outputs will be. However, multiple stakeholders have expressed concerns with either the model or the implementation. Of particular note is that multiple stakeholders expressed concern that the model being developed is 'too complicated for Thailand', which reduces their willingness to engage or support it. However, the actual financing component has not yet been finalized and feedback from stakeholders is still being considered.

Stakeholders want more clear direction from GGGI with more detailed information on how it will all work. They mentioned that the project is taking a long time to develop (the project has faced delays) and they are losing confidence that GGGI will deliver. It appears to the evaluator as if GGGI was not able to maintain an effective balance between having open dialogue with flexible ideas early on yet inspiring confidence that there is a clear and actionable vision that will manifest soon. In essence, at this stage stakeholders are unsure and hesitant at trusting TAPEE will work.

Also, multiple stakeholders commented that the subcontractor (EESL) hired to conduct the audits was 'rude', 'aggressive', or 'pushy' and/or did not seem to understand/respect how business is done in Thailand. GGGI staff are actively working to address this known issue, and one person on the subcontractor team has already returned to his home country. However, some damage to stakeholder relations and trust is still evident.

The direct counterpart reported not being directly involved in TAPEE. Also, the Country Team had uneven or out-of-date information on the activities relating to TAPEE. It appears they are most likely to hear from GIS when specific stakeholder visits are requested, rather than in a more ongoing, interactive, collaborative way, which limits their ability to keep local stakeholders informed.

The Country Team engages in risk management that is reasonably effective for external issues, but less so for internal issues. Key risks faced by the Country Team include:

- External:
 - Reputational risks – building and maintaining sufficient credibility with stakeholders. This is affected by not only GGGI activities, but also by the perception stakeholders have of ONEP, who is their formal counterpart and seen as sponsoring their activities.
 - Changing staff at counterpart entities/changes in appropriate counterpart.
- Internal:
 - Budget risks – changes in availability and/or expectation after annual budget/planning is complete.
 - New internal/administrative requirements after annual budget/planning is complete.

The Country Team demonstrated substantial understanding of the dynamics in Thailand, which was supported by stakeholder interviews. They have proactive engagement strategies to maintain stakeholder contact, such as by cultivating relationships with not only high-level positions who are the formal decision makers yet are likely to change frequently, but also with their staff, who are likely to remain long term. They seek to build relationships with other relevant agencies beyond the direct counterpart. However, multiple stakeholders indicated that sometimes other agencies are reluctant to engage due to cross-agency dynamics not within GGGI's direct control. Also, both the Country Team and government stakeholders noted that when the Country Team do not already have some funding to engage in new activities requested, momentum is lost, and government stakeholders can lose interest.

Therefore, they were less often 'surprised' by external factors than unexpected internal shifts. This appears to be due in part to inconsistent communication and resulting disconnect between activities and planning at GGGI HQ and the Country Team. Also, they have already considered and budgeted for external risks, but not necessarily for significant new requirements internally. Several examples were shared where the Country Team was surprised by activities or requests from GGGI HQ that resulted in short-term disruption within the Country Team in order to address, hindering their ability to keep core projects on track. As noted elsewhere, the small team size exacerbates this issue.

Budget limitations, restrictions and changes reduce effectiveness and inhibit trust. Related to several points made above, the Country Team appears to be doing a wide variety of activities, with more new duties recently added. Yet, this is in a context of limited and increasingly uncertain funding. The evaluator believes this degree of uncertainty is highly likely to impact morale, which can reduce effectiveness and/or efficiency. In the current planning process, the Country Team have cut planned staff increases to provide administrative support and additional expertise on climate finance – increasingly relevant as projects become more focused on implementation.

It is apparent to the direct counterparts that there have been funding issues. Their impression is that GGGI HQ doesn't give much to the Country Team, so if they need funding they have to seek it from a third party, which takes time and increases uncertainty, therefore inhibiting trust. However, stakeholders do note that GGGI has met deadlines so far.

Related to several issues noted above, **the Country Team were hired for country specific expertise and may benefit from more support for new duties coming internally**, such as increased focus on fundraising and new administrative and reporting requirements. The evaluator notes from her review that some country teams are larger and are likely to have more ability to specialize and cover additional expertise's already – giving more ability to absorb new duties. Also, while many international funding sources have calls for tenders, familiarity with their processes and requirements and developing relationships to help facilitate the 'soft' part of proposal evaluation would ideally be shared in some way across the organization, to maximize synergies, develop high-quality and fit-for purpose proposals and minimize duplication of individual efforts on the learning curve for each possible funder.

The Country Team highlighted how much they learned about the importance of extensive yet appropriate stakeholder engagement as early as the GHG Roadmap phase. They continue to place a high importance on building and maintaining relationships and coordinating with other initiatives, which several stakeholders who were especially familiar with GGGI noted.

Publishing formal deliverables only in English limit their reach. While many meetings are conducted in the local language, formal outputs are in English. This limited the ability of some stakeholders to provide feedback, or to read (and therefore use) the outputs to date, e.g. the GHG Roadmap or the CPF.

3c. Efficiency

Evaluation Question: Efficiency

C. How efficiently is the program and its related outputs being implemented by GGGI and its main counterparts?

The **overall efficiency of the Thailand Country Program is difficult to assess, in large part due to the frequent unscheduled changes to GGGI's internal planning and budgeting processes.** This has at least two effects, one, what to gauge efficiency against is a somewhat moving target as budgets and internal priorities shift and, two, the Country Team must divert time and resources away from direct project work to address changes.

The small team size impacts the ability to increase efficiency (and effectiveness). The Country Team demonstrated several cases of commitment and creativity at meeting aggressive deadlines and adapting to change. However, with a staff of only three, they are also handling all duties from basic office administration to very high-level donor relations – commonly doing tasks outside their core areas of expertise. This reduces their ability to contribute optimally and there are not always clear lines on who does what with the ongoing need to be flexible. However, the Country Team provided several examples of ways they sought to actively manage the staff size issue to limit its impact on results as much as feasible.

Stakeholders noted that, in the past, the Country Team has been able to deliver the outputs in reasonable time and quality, but they have some doubts on whether the same three-person team can fully deliver when new projects comes and/or more funds need to be spent in a short time.

Staff time appears overly weighted toward internal GGGI tasks, reducing time and expertise available for project work. Within the context of budget and staffing constraints discussed elsewhere, they have no administrative staffing and they appear to get relatively little support from GGGI HQ or other offices on direct project activities. The ability to use administrative or services support effectively from HQ is inconsistent.

By their nature, **many of the outputs, and all outcomes, are ultimately reliant on stakeholder support, inputs and long-term ownership**. As discussed elsewhere, the Country Team's role is largely facilitative with strategic technical support. Regarding the outputs, the Country Team seeks a path forward that actively includes stakeholders and incorporates their feedback into outputs – these processes can be quite slow and stakeholders may significantly prefer approaches that are more time-intensive, limiting the Country Team's flexibility. Also, the Country Team provided examples, such as for the NDC Action Plan, of where they had to delay their work to wait for outputs from other Government consultants, e.g. to ensure the GGGI output was sufficiently aligned with evolving information and strategies.

The ultimate ownership and specific actions that would lead to anticipated outcomes need to come from the appropriate stakeholders for that output, which so far has been rather inefficient. However, as the projects move toward direct implementation rather than planning, this dynamic is expected to shift.

Yet, numerous stakeholders confirmed that there is no clear responsible party in the government for comprehensive or holistic GHG emissions reductions for SMEs in Thailand, particularly industrial SMEs.

As mentioned in the Efficiency section above, **the Country Team uses the stakeholder engagement process to test out different approaches to implementation** of specific projects, including approaches that would be more and less familiar to the Thai market. Yet, based upon stakeholder feedback, they also appear to demonstrate sufficient context sensitivity to adjust the approach if needed to increase likelihood of success and ultimate country ownership – even if this means a path with fewer innovative features.

The Country Team's approach to securing and maintaining stakeholder engagement appears to be appropriate and reasonably efficient given the context, though time consuming. Many stakeholders acknowledged that initiatives progress more slowly in Thailand. The Country Team must continuously consider cultural expectations and individual preferences, as well as institutional dynamics when engaging stakeholders, all of which reduces objective efficiency, yet is critical for building and maintaining relationships and therefore support long-term. For example, personal meetings at the stakeholder location, however far, are frequently the expectation. As noted elsewhere, there generally seems to be sufficient stakeholder engagement for specific projects, yet GGGI is still widely unknown and more visibility would likely increase traction.

Limitations on data availability are an ongoing issue affecting most projects. Given the extent to which data availability affects outputs, the Country Team noted that if they had the ability to go back in time (to before they were hired), they would have recommended starting a data collection program first, even before attempting the original project, the GHG Roadmap.

Differing sectoral definitions are also an ongoing challenge. For example, because the Royal Thai Government splits responsibility for the industrial sector between different agencies, identifying and securing ownership and/or an implementation partner is unexpectedly challenging. Also, there are differing definitions of SME, which has impacts on the implementation approach for projects, as they target SMEs in specific industrial sectors.

The Royal Thai Government is still building its relationships with industry subgroups. There are examples where initiatives or approaches were perceived by the Government to be viable, yet the private sector then later provides very different feedback. For example, targeted subsectors can be facing other external pressures that reduce the priority of any GHG emission reduction efforts.

Identifying potential groups for GHG emissions reduction is not the same as identifying willingness. The willingness of different industrial subsectors to even engage with GGGI differs significantly, with some quite open to others being more conservative and may not even respond to inquiries. Even within the three sectors chosen for the GHG Roadmap, the ongoing willingness to engage has differed considerably, which hinders uptake.

The Country Team notes that in retrospect, they wish they could have worked even more closely with the targeted sectors. Yet, multiple stakeholders noted that GGGI has been working directly with industry representatives more than other programs and initiatives.

3d. Impacts

Evaluation Question: Impacts
D. To what extent is the program bringing about the desired policy, institutional and financial changes necessary to achieve the intermediate and strategic outcomes?

It is too early to provide conclusions on the overall impact as two of the three projects under consideration are still being implemented. Each project and its logframe is discussed in turn below.

GHG Roadmap

As discussed above the GHG Roadmap project is complete and the activities and outputs were all delivered. While the Steering Committee has provided their feedback and has been dissolved, **the Royal Thai Government does not show evidence of using the GHG Roadmap directly so far.** However, the TAPEE project grew out of the GHG Roadmap. It is not feasible to directly calculate reduction in GHG intensity for the industrial sector based upon GGGI's development of the GHG Roadmap.

Project Highlight 1: Stakeholder engagement in action

For the GHG Roadmap the Country Team, jointly with ONEP, organized six capacity building activities for 450 targeted stakeholders from government, academia, the private sector, civil society and international organizations from August 2014 to July 2016.

The first technical workshop included 101 stakeholders, 60% were women, 75% were from government agencies and state-owned enterprises, and 88% with a Master's degree or higher. Almost 80% reported that GHG mitigation is part of their role/responsibility. The workshop provided stakeholders with an opportunity to identify key barriers and solutions to implementing GHG reduction measures. The outputs from this workshop were analyzed and used as key information in the economic and technical analysis report.

The GHG Reduction Roadmap Launching Event was held in April 2016 had 121 participants. Compared to the first workshop, the launching event had higher representation from private/industry sector representatives at 47%, with 53% women and 71% with a Master's degree or higher. Over 90% reported that GHG mitigation is part of their role/responsibility.

To strengthen the capacity of the targeted industrial subsectors as well as to obtain feedback on their priorities and needs, the project organized a series of three capacity building workshops in Samut Sakorn, Chonburi, and Krabi province, where most of the industrial sectors of focus are located, in May (frozen seafood) and two in June (auto parts and palm oil) 2016.

At the Launching Event as well as the sector-specific workshops, the Country Team also sought feedback on four major hypotheses:

- (1) The GHG Reduction Roadmap is important and useful for GHG emissions reduction;
- (2) The GHG roadmap can be applied to related organizations and industries;
- (3) Long-term agreement as a framework in GHG roadmap makes sense and appropriate; and
- (4) Long-term agreement can be applied to other industries.

Ultimately, more than 90% of respondents indicated "Strongly agreed" or "Agreed" on each issue.

There was also a Project Closing Seminar in July 2016 to summarize the project achievements and share the lessons learned.

Follow-up surveys conducted for all events found that over 70% of respondents reported having a 'high' or 'highest' increase in understanding for the workshop topics.

Source: GGGI, 2016; Industry GHG Reduction to Support the Implementation of Thailand's Climate Change Master Plan Capacity Building Report.

The stakeholder engagement conducted as part of the GHG Roadmap development should be considered a highlight and provided examples of industry representatives actively participating in ways stakeholders reported have not typically been seen in Thailand. This stakeholder engagement process also provided an opportunity for GGGI to increase their visibility and credibility and establish relationships with key stakeholders.

Accelerating NDC Implementation

This project is still in progress. **The NDC Action Plan addressing the industrial sector was recently completed, but is not on the GGGI website and few stakeholders were aware of the final document yet.** However, the capacity building events highlighting the document are planned for the future.

As discussed above, the Country Team is in the process of conducting audits in support of the bankable projects component. There is no evidence available at this stage indicating that the Royal Thai Government has formally endorsed or otherwise acted on the NDC Action Plan.

The greatest potential for impact from this project appears to come from either (A) adoption and proactive implementation of the Plan by the Royal Thai Government and/or (B) stimulating effects of the projects being developed – either by providing direct examples or via the process of dialogue and capacity building leading to development.

TAPEE

The TAPEE project is still relatively early in implementation and has not yet completed any of its activities. As discussed in the ‘Project Highlight 2 Box: Exploration of the TAPEE Model’, there are early concerns about whether it sufficiently fits the Thailand context as envisioned and therefore its long-term sustainability. However, different options are still being considered which may change its long-term prospects.

Project Highlight 2: Exploration of the TAPEE model

TAPEE is testing a new approach that has some interesting components packaged in a way that has not yet been tried in Thailand. TAPEE is still early in implementation and still evolving, so it is too early to draw conclusions, yet there are areas of concern regarding whether the TAPEE approach will be effective or efficient. However, it ultimately depends on what the primary criteria for judging will be long term. TAPEE has multiple components, and it is useful to examine them separately.

Investment grade audits leading to two bankable projects. At TAPEE’s core is conducting 220 investment grade audits using a sampling approach to establish a baseline for an industrial subsector in order to lead to approximately one or two bankable projects within the project timetable and secondarily to stimulate the market longer term, where ESCOs, banks and other financiers can use this baseline information to bundle projects into larger and more attractive packages.

In essence, GGGI is funding services that ESCOs in other markets would typically fund themselves, albeit more incrementally. However, there is no one doing this in Thailand now. DEDE has been focusing its efforts more on larger businesses to meet its targets. The three energy generating authorities will have an increasing incentive to perform studies like this in the future now that energy conservation requirements for 2018-2022 have come into force. For example, PEA's target for 2018, is 10 million units saved, which is less than 1% of their sales. However, it not yet clear if SMEs would be part of their plans to meet these targets.

It is reasonable to assume that some sort of boost can help build an ESCO market, however, the specific construction for TAPEE involves a high number of audits with only a few projects expected to be implemented, relying on the stimulation approach for longer term positive outcomes. In contrast, the bankable projects component of the NDC Implementation project anticipates 10 walk-through audits, two facilities of which will receive investment grade audits both of which are being selected on the basis of demonstrating a high likelihood with the expectation that they will implement at least some of the recommended measures. When judged only against the short-term expected outcome of two implemented projects to serve as demonstration, the TAPEE approach appears highly inefficient.

On bill financing. TAPEE includes an on-bill financing component via PEA. This would not be efficient if used by only a few projects, but could be quite promising if ultimately scaled up. As discussed elsewhere, PEA is currently only using it for large projects at government agencies obtaining services from equipment suppliers (e.g. lighting, chillers, HVAC). However, this scale up depends on substantial changes in existing end-user and financier behaviour. To date, there is no group that has demonstrated sufficient willingness to absorb financing risk, but this is a current focus area.

Utility as broker. As PEA will not finance projects directly, they intend to serve as a broker, matching ESCOs from their approved list (to be created) to end-user needs. This can be quite useful at facilitating projects once interest has been established, especially for SMEs who are inexperienced at choosing appropriate vendors for EE/RE. This service does not necessarily need to be bundled with on-bill financing, but it is relatively simple for PEA to do so.

Mitigating credit risk mechanism. All stakeholders who addressed TAPEE mentioned that no one wants to take on risks. There is distrust on the part of SMEs on why EE/RE investments would be worth it for them (e.g. distrust of savings estimates and time frames and promises of other benefits). Vendors are uncertain that SMEs will pay them back. Local banks do not find the profile of individual EE/RE projects at one SME attractive (e.g. too small for the effort). In recognition of this, TAPEE is planning to develop some type of guarantee mechanism with a third-party, likely international funder. They are still only in early discussions of what this could look like, however. If it is found through stakeholder consultations not to be necessary, this component would likely be dropped.

(continued on next page)

Auto parts industry ambivalence. It is not clear that the SME auto-parts industry is ready to significantly increase EE/RE activity. While there is significant potential currently, and they were a focus of the GHG Roadmap, the auto-parts industry association as well as the national industry association (covering all industrial subsectors) has been hesitant to engage with GGGI relating to TAPEE after initial consultations. However, they could help stimulate participation and add credibility if they were involved.

The initial phase of audits has been completed and the response directly from SMEs approached was mixed. SMEs are very reluctant to share information about their processes with any external party. Also, the decision-making process for those who have ultimately agreed has been quite slow, and formal permission is needed. It is possible that SMEs will be more receptive when they hear of a few others that have now received audits.

The plans for long-term sustainability are not yet clear, key points of uncertainty are:

- **Who will finance projects?** Neither PEA, the Thai government, local banks or the consultants currently involved have demonstrated interest in significant financing so far. However, this is an area actively under discussion. Some local banks have expressed an initial willingness to hear more, if the projects can be bundled into sufficiently large packages. GIS has also received some initial positive indications from some international funders that offer periodic calls for projects.
- **Who will generate projects?** A significant outstanding question is who will generate sufficient interest in EE/RE for SMEs and aggregate them into sufficiently large packages for financiers after this initial audit phase is complete. There is no government entity who sufficiently 'owns' EE/RE project development for SMEs now. PEA is not planning to take this role for TAPEE, nor have they in the past. This role would ideally be taken over by vendors – presumably once they have sufficient trust there are viable projects to be found among sufficiently interested SMEs with access to financing. Based upon current stakeholder feedback, they would need to create a critical mass of demand in a short period to attract sufficient interest from local banks. However, this model relies on several assumptions that have not (yet) proven to be true in Thailand, else international funding will be needed.

Interesting, but risky. In summary, the TAPEE model relies on several complex assumptions that could prove interesting for replication internationally if successful. However, it is too early to tell whether the model is realistic at this time for Thailand. Even if TAPEE is not ultimately successful as a whole due to market limitations, there are several components that could be used separately in other contexts.

3e. Sustainability

Evaluation Question: Sustainability

E. To what extent do the benefits generated by the program appear to be sustainable?

It is too early to provide conclusions on the long-term sustainability overall as two of the three projects under consideration are still being implemented. As is common for these types of capacity development projects, **all three projects lack sufficient mechanisms to facilitate and maximize long-term sustainability built into the project itself and reflected in project KPIs.** For example, both the GHG Roadmap and the NDC Action Plan do not identify the stakeholder(s) responsible for carrying out the next steps, which is a significant lost opportunity³⁵.

The GHG Roadmap activities have been completed, and while the uptake of the document itself is quite limited so far, it is still possible it will stimulate lasting direct or indirect impacts. As discussed above, the stakeholder engagement component of the project is the most significant in terms of providing a forum for GGGI to become better known and establish relationships and credibility. While the Steering Committee has been dissolved, the Country Team continues to build upon the relationships with stakeholders initially engaged through this project. It is unclear if the increased level of engagement of industry representatives in dialogue with government will be sustained in any way, but a foundation has been laid.

The best prospects for sustainability relating to the Accelerating NDC Implementation project appear to be with components that are not yet completed, that is industry capacity building and demonstration of bankable projects.

With TAPEE, the best prospects appear to be through demonstration of bankable projects using mechanisms developed under the project that continue to be used after completion.

In terms of resource mobilization to continue activities, the Country Team is proactively engaged in fundraising. For example, they are awaiting a decision on the Thai Government's recent submission to the Green Climate Fund, which includes funding for GGGI activities. GIS is also pursuing a variety of funding channels specifically related to TAPEE. However, it appears that the Country Team may require additional support on resource mobilization and/or additional staffing if they are to maintain sufficient focus on project delivery to meet the expectations of the country counterparts.

³⁵ The Steering Committee requested that this type of section not be included in the GHG Roadmap.

3f. Cross-cutting

Evaluation Questions: Cross-cutting

F.1 To what extent has GGGI been able to mainstream safeguards, poverty reduction, and social inclusion (including gender) into delivered outputs?

The context for and the nature of the outputs delivered are relevant to consider when assessing the application of cross-cutting themes to activities. **Relating to safeguards, to date the Country Program has focused primarily on planning documents and technical analysis so the relevance of GGGI safeguards has been limited.** As they increasingly move into implementation activities the appropriateness and relevance of incorporating safeguards will likely evolve.

The evaluator notes that the focus for the Thailand Country Program to date has been GHG emission reductions in the SME industrial sector and the project goals do not have an explicit social or poverty dimension, yet SMEs are a significant target, per GGGI's policy. Also, **the Country Team noted that they screen potential projects for social criteria as well as linkages to the CPF and other factors.**

To date, there has not been a concerted effort to mainstream gender into the Country Program and it was only addressed in a limited way in the CPF. Yet, the Country Team noted that **gender is not seen as a significant issue and a substantial percentage of the stakeholders they regularly engage, particularly in government, are women.** This was confirmed by the profile of stakeholders reached for this evaluation – 43% were women.

Requests for the future

Stakeholders provided suggestions for new projects GGGI could support with in the future, including:

- Broader awareness raising and capacity building, particularly with industrial SMEs. Two stakeholders also mentioned reaching out to local/regional authorities.
- Help with MRV, particularly in the industrial sector.
- Replicating the GHG Roadmap to additional sectors.
- Help them determine their peak emission year, as they believe they are close to it now.
- General requests for GGGI to help transitioning from plans to 'real' implementation.
 - Multiple stakeholders stated a need for solid information on different time frames in which the recommended types of technologies (such as those mentioned in existing plans) can be implemented and with reasonable investment cost estimates.
 - A few stakeholders wondered if GGGI could examine the need/demand for GHG emission reduction measures from the point of view of the international customers of the Thai industries, for example big importers from the EU, Japan, or US. Trends in their needs/requests will stimulate demand for change as whatever the major retailers need, the local SMEs will adapt.

4. Lessons learned and Recommendations

4a. Lessons Learned

The following lessons learned are drawn from both the successes and challenges faced by the Country Team as they implement the activities described above in Thailand. The lessons are organized by the same OECD Development Assistance Committee (DAC) criteria used to organize the evaluation questions: Relevance, Effectiveness, Efficiency, Impact, and Sustainability.

Lessons learned - Relevance, including project selection and positioning within the country

- REL1: Activities in Thailand provide a good fit with both the Royal Thai Government's requests and GGGI's mission and objectives overall.** Thailand's commitment to climate change is well-documented. Although there is uncertainty regarding the current government's longevity and, therefore, long-term commitment to current project priorities.
- REL2: Thailand engaged with GGGI partially to increase access to the Republic of Korea (RoK),** as GGGI is based in the RoK. Government representatives were also interested in GGGI's perceived technical and economic expertise, international network, potential to access financing.
- REL3: The choice of counterpart is important, and the most appropriate entity may change over time.** As the planning agency and focal point for international climate change activities, Office of Natural Resources and Environmental Policy and Planning (ONEP) was a reasonable counterpart for the original planning outputs, though other agencies more focused on implementation would also have been reasonable. As activities switch to implementation, these other government entities may be more relevant as a counterpart instead of, or in addition to, ONEP for a specific project, depending on the project context and goals.
- REL4: Having offices at (or near) the counterpart helps facilitate relationships.** The GGGI team is in the same building as their direct counterpart, as are other entities, including GIZ.
- REL5: GGGI is the 'new kid on the block' with limited credibility established so far and the Country Team must continuously prove themselves** in terms of technical quality as well as demonstrating respect building appropriate stakeholder relationships and navigating in-country dynamics. This results in a high-pressure environment, particularly when the Country Team are being pulled in different directions and having to prioritize.
- REL6: Project selection and ongoing support can be influenced by activities and behaviors of other donors and initiatives** active in the country in addition to formal criteria. For example, the counterpart may defer to the preferences of other initiatives that have substantially more presence in the country than GGGI. If these soft factors are not taken into account sufficiently a project may struggle to gain traction.

Lessons learned - Effectiveness, including internal processes as well as project reach

- EFV1: **Ensuring relevance is insufficient to ensure uptake.** To date, GGGI's activities in Thailand are highly relevant, but uptake is more limited than expected. This is due to addressable issues with project design as well as lack of a clear long-term ownership path for the outputs within the Royal Thai Government.
- EFV2: **Project implementation, as well as impacts and long-term sustainability are influenced by institutional dynamics within the Country.** Most projects require ongoing cooperation, such as through sharing data from one or more government entities and/or private sector groups who are not the same as the country counterpart.
- EFV3: **Stakeholder relations are complex.** It is a delicate balancing act between keeping stakeholders informed, allowing them to have a voice in project development, and expressing a clear vision that inspires confidence and trust. Also, different stakeholder groups have different preference for the approach to engagement (e.g. personal meetings, email updates, or teleconferences), which must be managed.
- EFV4: **Budget challenges and limitations can harm credibility.** While there does need to be a mechanism for discontinuing nonviable projects, the degree of the ongoing budget challenges within GGGI, and with the Thailand Country Program in particular, have created uncertainty within the country counterpart. For example, earmarked funding anticipated for 2017 did not materialize. This has led to concerns that GGGI can actually deliver in the future, harming the Country Team's efforts to build credibility and increase visibility.
- EFV5: **Small country teams may not be able to cover all desired skillsets internally,** and should not be expected to do so. The Country Team consists of 3 people doing all tasks from very high level to technical to very basic administrative and office tasks, and increasingly resource mobilization as well.
- EFV6: **Data quality/availability is an important component of many projects.** Data quality and availability relating to industrial GHG emissions has hindered both the GHG Roadmap and the NDC Action Plan development in ways that were not fully anticipated during project planning.
- EFV7: **It is important that stakeholders feel their time is valued.** This is particularly the case for skeptical groups, like the private sector. This is most effective when GGGI staff strike a balance between openness to stakeholder feedback and demonstrating a clear vision that inspires trust. Stakeholder relationships have been facilitated when there is a clear understanding of what is in it for the stakeholder, the objectives of the meeting are clear, and when they have been

approached in the expected way demonstrating respect. When a new meeting is requested stakeholders want to know why new interaction is also/still relevant for them.

EFV8: Project concepts need to be framed in ways the stakeholders will sufficiently understand and be willing to own long term. More support and openness has been possible when stakeholders clearly understand what is being proposed. The implication for GGGI is to approach stakeholders using the terminology and concepts familiar to the stakeholder, even if that requires extra work/reframing.

EFV9: Multiple stakeholders do not yet fully understand and are skeptical of TAPEE. There appear to be several reasons for this including the involvement of ‘outsiders’ from other countries, the perceived complexity of the proposed credit risk guarantee mechanism, the involvement of an Energy Services Company (ESCO) market that is perceived as nonviable in Thailand, and lack of clear understanding by stakeholders of how it will all come together into a coherent package.

Lessons learned - Efficiency, including internal processes as well as facilitating stakeholder ownership

EFC1: It is difficult to assess efficiency, especially due to changing budgets and priorities. This phase includes establishment of the Country Program, which included: substantial stakeholder engagement, its evolution from one project to multiple independent projects to more recently coalescing into a more coherent program of activities focused on capacity building and facilitating bankable projects. In addition to the regular planning and budgeting cycles, there have been four significant budgetary disruptions, resulting in uncertainty and sometimes cuts. Also, the budgets do not clearly separate project and administrative labor.

EFC2: It takes long and consistent effort to establish credibility in a country. The extent of initial, as well as ongoing, stakeholder engagement that is needed to establish and maintain relationships and build credibility is time-consuming and not necessarily related to a specific project-budget line item. However, when there are issues (as is currently the case for TAPEE) it undermines not only the current projects, but overall trust and possibilities of success in the country long term.

EFC3: Stakeholders may have suspicion/bias against foreign consultants that can inhibit local engagement and ownership. Both cases where international consultants were used was noted and met with skepticism by some stakeholders. It is likely that any faux pas or perceived lack of understanding of the Thai context or ‘way of doing things’ contributes to distrust and/or hesitancy to engage.

EFC4: Country timeframes do not necessarily match GGGI timeframes. Project design as well as timeframes need to be realistic and tailored to the country context from the outset to be useful and effective as well as to ensure appropriate long-term ownership. External deadlines that are out-of-sync relative to local stakeholder needs that put unwelcome pressure on stakeholders will undermine the entire project, i.e. there is a need to ensure stakeholders are sufficiently on board before proceeding to the next step.

EFC5: It is challenging to assess if a gap is there because the idea is a ripe opportunity rather than not ready. This can result in lost time/effort. GGGI seeks a niche of providing effective support that does not duplicate other efforts. In the case of targeting energy efficiency in industrial SMEs in Thailand, all stakeholders agree this is an unmet need, yet one of the reasons no one else is focusing on it is that there is no clear government agency owner, which can undermine project effectiveness.

EFC6: With only 3, the Country Team spends too much time on internal GGGI matters. The proportion of time necessary to address internal GGGI planning, reporting and other needs places a high burden on a team of this size, undermining project delivery. Up to 1.5 full-time equivalent (FTE) is being spent on internal GGGI matters, which leaves only 1.5 FTE for direct project work and broader stakeholder engagement. Most of this internal work appears to be set, so the more staff a country team has, the lower percentage spent on internal matters. They would need more resources to become more efficient and to gain better traction in the country.

EFC7: GGGI internal processes, e.g. lengthy contracting, can slow implementation. TAPEE, in particular, experienced significant delays due to both external and internal issues, such as a slow contracting process, which exacerbated challenges of meeting the project timeline.

Lessons Learned - Impacts and Sustainability

IMP/SUS1: Stakeholder engagement from the GHG Roadmap is most significant impact so far. Most stakeholders expressed a positive perception of GGGI and a willingness to engage with them in the future. Multiple stakeholders were impressed that Country Team engaged the industrial sector in ways not normally seen in Thailand during the GHG Roadmap process.

IMP/SUS2: There needs to be sufficient consistent activity to gain traction in a country. With such a small presence and budget, the burden is high on the Country Team to engage in high-visibility activity to maintain stakeholder interest as well as provide formal and informal reminders of project outputs. However, this type of ongoing stakeholder awareness building is not typically included in budgets.

IMP/SUS3: **If sustainability mechanisms are not built into the project, they are very unlikely to be pursued** after the deliverables are completed and project funding is depleted. Currently, there is no mechanism, in terms of expectation, protocol, logframe indicator, or budget, to follow up on the adoption/uptake of completed projects, e.g. the GHG Roadmap.

IMP/SUS4: **The project logframes miss the mark.** The logframes for the three projects considered do not make sufficient links between outputs and outcomes and impacts. They do not sufficiently address 'prerequisites' for sustainability, such as having a clear government/in-country owner or dissemination/follow up plan. They also miss including meaningful indicators of quality and reach in addition to quantity, e.g. using 'number of workshop attendees' only does not address whether the most appropriate stakeholders attended or reported receiving relevant and useful information.

4b. Recommendations

Instead of being organized by DAC criteria, the recommendations are grouped by function.

Externally focused: Country engagement

ENGG1: **It is important for the Country Representative to coordinate all stakeholder engagement**, due to sensitivities. Even when ideas or initiatives are spearheaded from other units or offices, the Country Representative should be responsible for, and deferred to when necessary, all communication and stakeholder engagement as they are responsible for building and maintaining long-term relationships in the country. Stakeholder interactions need to be tailored to cultural and individual preferences, and the Country Representative is responsible for this understanding.

ENGG2: **Periodically review the appropriateness of the counterpart agency.** This review should include discussions with the current and any proposed new counterpart. The frequency will depend on the rapidity of change within the country, e.g. as priorities and duties between agencies evolve, as well as for each new GGGI project. For example, this counterpart function could be transferred from ONEP or temporarily delegated when focusing on implementation projects, depending on expectations regarding project characteristics long-term. Regardless, ONEP remains designated coordinator for international climate change-related activities for the Royal Thai Government.

Externally focused: Project selection and design

PROJ1: **Consider ability to increase visibility when selecting and designing projects.** Make significant stakeholder engagement a cornerstone of projects, especially in the early stages of GGGI's country presence to help establish long term relationships and credibility.

PROJ2: Seek a vetting process with key stakeholders for new project concepts before committing significant resources. The degree of cooperation and long-term ownership of all key stakeholders should be assessed in the early stages of the project. This vetting process should go beyond the direct counterpart and include stakeholders critical to the success of the project (e.g. for providing inputs or long-term ownership). To facilitate this, develop awareness/educational materials (e.g. for financial concepts) from the perspective of, and tailored to, different stakeholder audiences that minimizes jargon. This vetting process may also include discussions with other major donors with similar projects, as appropriate. Relevant project concepts may need to be postponed or declined if the long-term pathway to success is not (yet) sufficiently clear.

PROJ3: Assess the inputs critical for project success before committing significant resources. For example, this could include data quality/availability, participation of specific stakeholders as discussed above as well as alignment with other projects/outputs. Where weaknesses are identified, a remedy should be built into the project design.

PROJ4: Consider selecting projects that can show concrete results within a year, using a staged or incremental approach as needed. This will increase attractiveness for skeptical stakeholders or those with a very short-term perspective as well as help build credibility longer term. GGGI's expectations regarding project scope and timeframes will need to be consistent with the counterpart's appetite to facilitate long-term sustainability. This means progress may be slower than GGGI originally anticipated.

PROJ5: Ensure there is a clear path of follow up and long-term ownership built into the design. All outputs should have identification of clear owner(s) for the next phase built into the project design and logframe KPIs. The type of owner would depend on the expected outcomes and next steps anticipated for each deliverable; it could be GGGI staff, a government body or specific official, or a third party such as private sector or civil society stakeholder(s). This is especially relevant for planning outputs where no long-term impact is possible without follow up after the immediate project. Other prerequisites for long-term sustainability should also be incorporated into the project design and logframe as appropriate. The logframe may need to be updated with more specific information at specified intervals to address this issue.

PROJ6: Seek using in-country resources to the extent feasible to help build credibility as well as build capacity. Consider the profile of potential subcontractors from other locations in the context of and country perceptions relative to value, and whether a local partner is also appropriate. This could be done for example through informal conversations with stakeholders critical for success. In some cases, regional resources may be seen as sufficiently local and consultants with strong international reputations for that specialty may be seen as sufficiently trustworthy.

PROJ7: All key outputs should (also) be in the local language to facilitate use by targeted stakeholders.

This means the need for translation for key project outputs as well as public minutes should be assessed and should be factored into project budgets from the outset or be a separate line item in general budgets. While there are clear benefits for deliverables being accessible internationally by being provided in a language such as English, to be effective they first need to be accessible within the targeted country to achieve their primary purpose.

Internal Processes: Planning

PLAN1: Ensure the priorities of different units within GGGI are sufficiently aligned and that there is a clear and safe communication channel to clarify any issues/confusion.

PLAN2: GGGI should clarify its risk tolerance in terms of innovation and flexibility relative to ensuring specific outcomes. GGGI's own priorities and risk tolerance underpin the project selection process addressed above. There appears to be inconsistent messaging between the expectation for innovation and exploring untapped markets while also seeking significant outcomes and impacts in relatively short timeframes.

PLAN3: Restructure the Country Planning Framework (CPF) process to be more time efficient and usable and ensure it is aligned to the Country Work Program and Budget as well as the Country Business Plan. The portion of the CPF that is relevant for in-country work is the identification of themes that can serve to prioritize the work. The remainder appears to primarily be for an external donor audience. For example, the use of outcome estimates that are quite time-intensive to produce yet are of questionable accuracy should be reviewed.

PLAN4: Ensure new requests or shifts in direction from GGGI Headquarters are adequately explained and appropriate support provided. This is to minimize disruption and maximize the likelihood of buy-in and compliance. This will also increase perceptions of camaraderie and 'all operating on the same team' toward the same overall goal.

PLAN5: Ensure GGGI's planning approach is flexible enough to accommodate shifts in circumstances and priorities within the country. Any shifts in budget determined to be appropriate should be done in consultation with the Country Team, and potentially the direct counterpart for that project. In general, projects benefit from a stable plan and budget with a long enough horizon to complete the necessary tasks. However, as circumstances shift, a project may become less relevant or appropriate midstream and may best be postponed or abandoned if the circumstances have changed dramatically.

PLAN6: Ensure sufficient resources have been put into existing projects before starting new projects. This will substantially increase efficiency and minimize lost or stranded opportunities.

Internal Processes: Budgeting

BUDG1: Ensure there is a stable general budget medium-term as well as for the duration of projects.

This is to minimize disruptions and reputational risk and increase efficiency and staff morale as well as credibility with country stakeholders. This should not be seen as inconsistent with *PLAN5: Ensure GGGI's planning approach is flexible enough to accommodate shifts*, which focuses on recognizing when a project is no longer viable, rather this focuses on ensuring enough certainty, so that projects can be implemented without interruption or distortions.

BUDG2: Ensure there is sufficient and stable budget for all regular costs that are not project specific.

This includes ongoing stakeholder relations, internal planning and coordination, monitoring and evaluation, learning, and office administration. This may also include translation of corporate/international documents into the local language.

Internal Processes: Staffing and organization

STAF1: Increase resources available to the Thailand Country Team. In addition to the possibility of additional staff (ad hoc or full-time) or additional support from GGGI HQ, explore the possibility of regional teams or affinity groups to enhance synergies, pool resources, increase flexibility and build organizational cooperation and knowledge sharing.

Project Specific

GHG Roadmap-1: Develop a plan with budget to increase uptake and ownership of the Roadmap. This could include, for example, seeking adaptation of the calculation approach for other sectors by GGGI, another initiative and/or an appropriate government entity, and/or another GGGI country. It could also include work to simulate the development of industry agreements, new capacity building/industry engagement activities to increase usage and/or brainstorming sessions on other activities that can build upon the material provided in the GHG Roadmap. Develop an updated logframe reflecting this phase of activities focused on increasing impact and long-term sustainability/transformational change.

NDC Implementation-1: Develop a plan with budget to increase uptake and ownership of the NDC Action Plan. As with the GHG Roadmap this could, for example, include work to simulate the development of industry agreements. It could also include new capacity building/industry engagement activities beyond the limited activities currently planned to increase usage and/or brainstorming sessions on activities that can build upon the NDC Action Plan.

NDC Implementation-2: **Develop factsheets or case studies with project examples** (real if possible, hypothetical if necessary) targeted to industrial SMEs. This will not only help to solicit participants but will extend the reach of the outcomes achieved.

TAPEE-1: **Monitor progress carefully to see if TAPEE gains more traction.** TAPEE is currently at a somewhat fragile state with some positive progress, yet also significant stakeholder concerns. Therefore, it should be closely monitored to see if it increases in viability, stakeholder support and achieves successful design of instruments and implementation of projects using the instruments as intended.

TAPEE-2: **More deeply engage Country Team for help liaising with stakeholders.** As multiple projects are being implemented, it is important that long-term stakeholder relationships are maintained. A loss of trust or credibility in one project may significantly impact the likelihood success of other current and future projects.

4c. Linkages to previous evaluations

All of the findings, lessons learned, and recommendations presented in this report are based solely upon analysis of the data collected within the context of this evaluation. However, it is clear that there are many parallels of the perspective of one country's operations presented here with themes GGGI is already in the process of addressing that were presented in higher-level evaluations of GGGI as a whole, such as the Independent Evaluation of the Global Green Growth Institute's Progress against the Strategic Plan 2015-2020 published in July 2017 and the periodic Joint Donor Reviews. These overlapping themes include:

- Recognizing the practicalities of what GGGI can do, given its size and positioning;
- More strategic selection of projects and activities, including clarifying risk tolerance;
- Increased internal communication, coordination, and knowledge sharing;
- Resolving structural tensions between different units within GGGI to avoid working at cross-purposes, creating stranded non-assets, or in the worst case, (inadvertently) undermining the work of another;
- Making progress on funding challenges and increasing capacity of country teams to the extent they are asked to help support in resource mobilization for the organization; and
- Improving the results-based management framework and results reporting at all levels.

Annex A: Summary of Evaluation Approach

A1. Overview of the evaluation approach

The approach had already been defined in the Evaluation Approach Paper that accompanied the Terms of Reference for the Independent Evaluation and is published online³⁶ and is summarized as follows:

The evaluation integrated goal-based, theory-of-change-based, and utilization-focused approaches to facilitate the achievement of objectives stated in Section 1b of this report:

1. A goal-based approach to measure the extent to which the program is attaining its objectives through the delivery of outputs. This approach should be mainly used for those parts of the program for which outputs have been already completed and endorsed by GGGI main counterparts.
2. A theory-of-change based approach to test the overall robustness of the country program's theory of change and specifically focus on those parts of the program that are still at an early stage of delivery.
3. A utilisation-focused approach. This approach should guide the evaluator to fulfil the final objective of the evaluation namely developing practical recommendations for the country team, Thai stakeholders and GGGI management team to further improve the current and future delivery approach and impact.

The primary methods were desk review of key program documents and interviews with key stakeholders.

This evaluation was designed to be consistent with GGGI's Evaluation Rules, and followed its principles of independence, credibility, utility, participation, transparency, and value-for-money.³⁷ This evaluation approach was also consistent with the OECD DAC Quality Standards for Evaluation³⁸.

Evaluation activities

After the project inception call, the key activities during the inception phase included:

- Coordination on scope and activities with the representative from GGGI's Impact and Evaluation Unit (IEU);
- Orientation calls with GGGI's Thailand country team and a representative from the Green Investment Services (GIS) Unit;
- Initial literature review;
- Refinement of the evaluation questions;
- Review of stakeholders to be engaged for this evaluation and scheduling;
- Indication of interview topics by stakeholder (group); and
- Draft outline of the final report.

³⁶ <http://gggi.org/site/assets/uploads/2017/12/GGGI-Thailand-Country-Program-Evaluation-Approach-paper-design.pdf>

³⁷ <http://gggi.org/site/assets/uploads/2017/11/GGGI-Evaluation-Rules-version-1.0.pdf>

³⁸ <https://www.oecd.org/development/evaluation/qualitystandards.pdf>

The IEU representative and the independent evaluator received updated information on the most relevant stakeholders to contact for this evaluation during the evaluation planning stages. For example, the stakeholders relevant for Focus Area 3: TAPEE changed to reflect evolutions in program activities. Almost all of the stakeholders targeted agreed to participate and were available during the data collection window.

A visit to Bangkok to interview key stakeholders in person was conducted from 22 to 26 January 2018. GGGI IEU staff, with support from the Thailand Country Team, arranged interviews with as many of the key stakeholders as feasible during the visit to Bangkok. An interpreter, when needed, and appropriate transportation between locations was also arranged by GGGI.

The interviews were attended by an IEU representative and the external evaluator. Interviewees were given the option of conducting the interviews in English or Thai, with assistance of an interpreter. To the extent that critical stakeholders were not available during the country visit, yet were still willing to provide feedback phone/skype interviews or short questionnaire were used as appropriate. There was a second more in-depth literature review after the site visit.

The analysis and synthesis of findings was conducted from 29 January to 23 February, when the draft report was submitted. The evaluator presented findings and preliminary lessons learned and recommendations to the IEU for feedback before the draft report was completed to ensure alignment with expectations. The Thailand Country Team and GIS representatives were given the opportunity to review the report for accuracy, and the comments received were incorporated before it was shared with other stakeholders in mid-March.

Limitations to this evaluation

This subsection documents known limitations to this evaluation and the approach to mitigating them.

Scope and data availability. This evaluation sought to address a wide range of issues for a multi-pronged program. While all evaluation questions appeared feasible to address at inception, the extent to which detailed information for each Focus Area was available to address evaluation questions was inconsistent and heavily reliant on the documentation available and stakeholders it was feasible to engage with during the data collection phase. For example:

- Focus Area 1: GHG Roadmap has been completed for over 18 months and relevant stakeholders had limited memory of processes.
- Focus Area 2: Accelerating the NDC is still in progress and only a few stakeholders were familiar with the activities.
- Focus Area 3: TAPEE is still in early stages and the design is still in flux. Also, not all relevant stakeholders have yet been engaged.

Therefore, the evaluation focused on answering the evaluation questions at the program level and providing further detail on the three separate Focus Areas as it was available, relevant and useful for future learning.

Also, taking a theory-based approach allowed for different types of activities, and variation in their delivery based on context, to be taken into account. Data collection and analytical tools were tailored for specific stakeholder groups and Focus Areas, embedded in country context, yet remained consistent in function to facilitate synthesis for this final report.

Cultural and language dynamics. The evaluation interviews were conducted in English by a professional evaluator with a GGGI IEU representative present, neither of whom are Thai. GGGI provided an interpreter for any case where the interviewee preferred to speak in Thai rather than English. However, it is possible that cultural dynamics of using a foreigner as well as the effects of using an interpreter could have affected the depth of information shared by stakeholders, particularly if the feedback was negative or otherwise sensitive.

The evaluation sought to mitigate this as much as feasible by showing substantial respect to all interviewees, asking a mix of focused and broad questions, and triangulating information from different sources to the extent feasible.

Anecdotally, the interviewees appeared quite cooperative and open to answering questions. A much more obvious issue was their lack of familiarity with specific aspects of GGGI's activities in Thailand.

Comprehensiveness of the ToC. It is possible that the overarching ToC and/or those for the specific Focus Areas did not include all important risks and assumptions, which could have led to gaps in the data collection and analysis.

To address this potential, the theory of change was informed through a process of documentation review and consultations with those responsible for implementing the programs before the guides for key stakeholder interviews were finalized.

In practice, there were gaps in data collection however this was not due to issues with the TOC, rather it was due to lack of recollection by some stakeholders as well as the inability to interview some important stakeholders, such as DEDE, the Thai Federation of Industries, or the Thai Auto-Parts Association.

Attribution issues. The inception report noted the possibility that the evaluation would be unable to identify which specific types of support have worked, or why. This was considered to be a risk especially for the portions of Focus Area 2: NDC and Focus Area 3: TAPEE that have not yet been fully implemented.

To mitigate this, the evaluation included a process evaluation framework based upon the evaluation questions and sub-questions that breaks down each aspect of the implementation prioritized for exploration by the evaluation questions. This helped the evaluator to identify which parts of the

implementation were expected to drive impact and sustainability where relevant as well as focus on the appropriate relevance, efficiency, and effectiveness themes where appropriate.

During data collection, few examples of impact were found at this point for any of the Focus Areas, essentially rendering the attribution question mute.

A2. Evaluation Questions

As part of inception activities, the draft evaluation questions in the Evaluation Approach Paper were reviewed and updated. The final versions are provided in Table 1 Evaluation Questions, organized by OECD-DAC criterion³⁹. The evaluation questions remained substantially the same. For context, highlights of changes were:

- Separating efficiency and effectiveness into separate questions.
- Adjusting wording to promote more qualitative assessments beyond Yes/No responses.
- Minor wording changes to more accurately reflect the nature of the analysis to be done.
- Separating multiple-concept questions into separate questions to better focus the analysis.
- Added a question on the relevance of the Thailand country program to GGGI’s priorities.

These changes did not materially affect the data required or means of verification column in the original Evaluation Matrix found in Annex III of the EAP. The data collection activities are:

- Review of documentation (a) provided by GGGI, including internal Monthly Reports (b) any documents provided directly by stakeholders and/or accessed from government websites (c) external documents relevant for providing additional context, e.g. benchmarking level of innovation.
- Interviews with key stakeholders.

The full list of high-level evaluation questions and sub-questions is included below, organized by DAC criteria, with an additional cross-cutting category.

Table 1. Evaluation questions

Evaluation Questions
Relevance
A. How relevant is GGGI program to the Thai Government’s national and international green growth and climate change priorities?
A.1 Does the program target highly relevant green growth and climate change national and international priorities?
A.2 To what extent is GGGI’s program leveraging ongoing sectorial initiatives led by Ministry of Industry, Ministry of Energy and ONEP?

³⁹ <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

A.3 Do the provided policy advisory, knowledge and private sector solutions address the needs of the government and industry stakeholders?
A.4 To what extent is GGGI's program in Thailand relevant to GGGI's strategic mission and priorities?
Effectiveness
B. How effectively is the program and its related outputs being implemented by GGGI and its main counterparts?
<p>B.1 What progress has been made in delivering the planned outputs stated in the theory of change and logframes? This sub-question should include the following considerations:</p> <ol style="list-style-type: none"> a. Whether the outputs have been designed according to the level of capacities of the main recipients b. To what extent have lessons learned/knowledge from stakeholders related to the Roadmap development been used and replicated to develop the current work on NDC implementation? c. To what extent do the main counterparts consider the provided services useful to carry out their missions and daily work?
B.2 To what extent does the program promote innovative approaches to deal with GHG emissions reductions, where appropriate?
<p>B.3 To what extent does the partnership built include appropriate stakeholders to achieve the program outcomes? This sub-question should include the following considerations:</p> <ol style="list-style-type: none"> a. To what extent has GGGI facilitated dialogue between the industrial actors and the government on GHG emissions reduction? b. To what extent has GGGI's intervention contributed to further improving collaboration among the involved ministries? c. How effective is GGGI's approach in securing and maintaining stakeholder engagement?
B.4 How effective has the program been in interacting with other donors/projects and leveraging knowledge?
B.5 What evidence is there that GGGI has been able to create an environment of trust with the main counterparts?
B.6 How effective is the risk management strategy?
Efficiency
C. How efficiently is the program and its related outputs being implemented by GGGI and its main counterparts?

C.1 What are the main factors/challenges impacting the delivery and achievement or non-achievement of the program outputs and outcomes?
C.2 To what extent does the program promote innovative approaches to deal with GHG emissions reductions?
C.3 How efficient is GGGI's approach in securing and maintaining stakeholder engagement?
Impacts
D. To what extent is the program bringing about the desired policy, institutional and financial changes necessary to achieve the intermediate and strategic outcomes?
D.1 What evidence is there that the delivered outputs have contributed or will contribute to the achievement of the intermediate and strategic outcomes?
D.2 What unintended positive or negative impacts have been triggered by the program?
D.3 What evidence is there that the outcomes related to investment mobilization will be achieved based on the planned outputs?
D.4 Based on the Theory of change and on outputs delivered to date, does the program appear to have the potential to trigger transformational change related to GHG emission reduction in the industrial sector?
Sustainability
E. To what extent do the benefits generated by the program appear to be sustainable?
E.1 To what extent have the main counterparts been enabled to use and/or replicate the provided knowledge?
E.2 To what extent GGGI has contributed to increase awareness and knowledge related to the role of the industry to achieve GHG emissions reduction?
E.3 To what extent have the potential threats to the sustainability of the project benefits been mitigated by GGGI?
E.4 Is there an appropriate resource mobilization strategy in place to ensure the program can continue to deliver the planned outputs beyond 2017?
E.5 What measures have the counterparts put in place to effectively implement the provided inputs/outputs from GGGI?
Cross-cutting
F.1 To what extent has GGGI been able to mainstream safeguards, poverty reduction, and social inclusion (including gender) into delivered outputs?

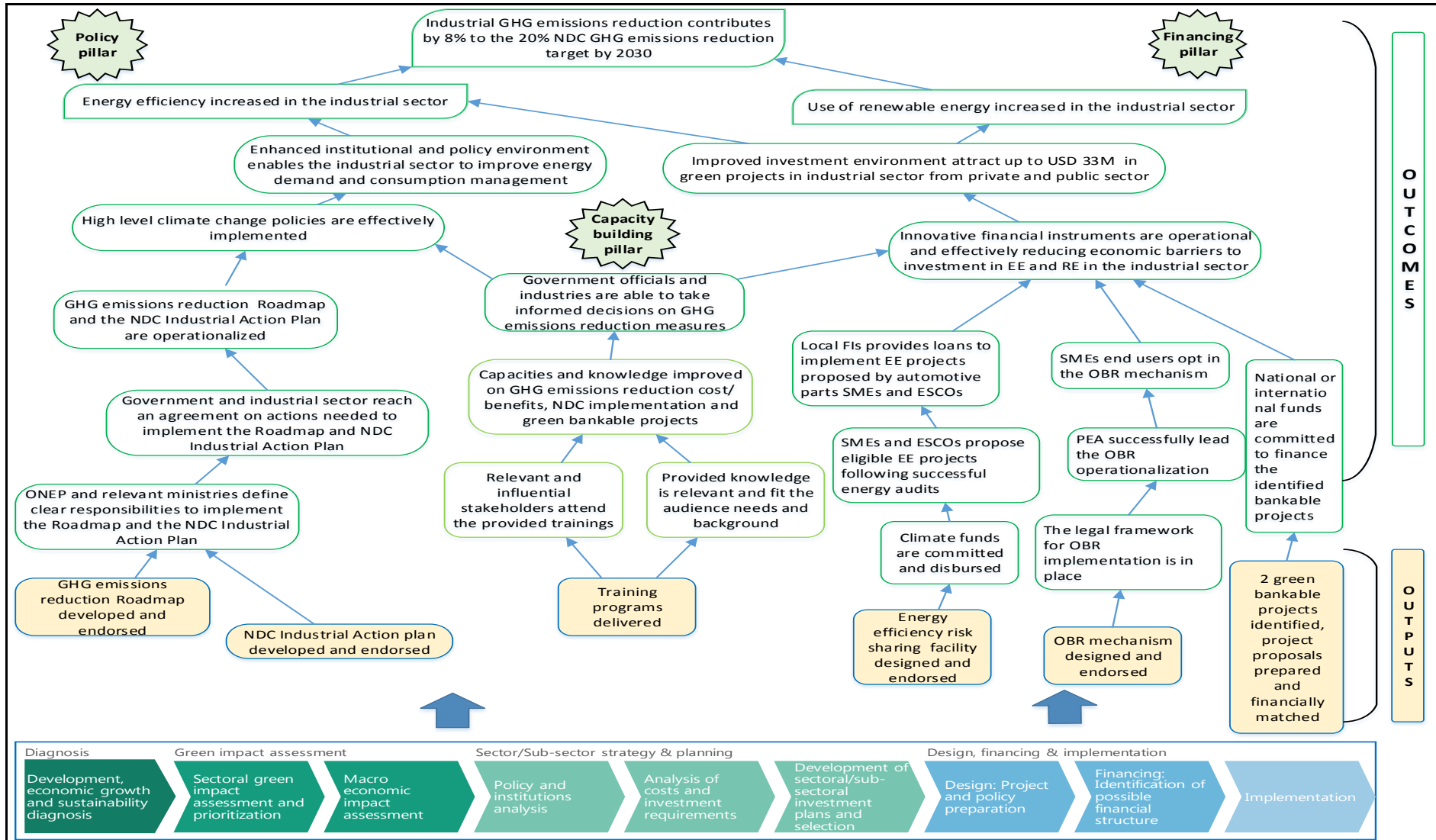
A3. Evaluation governance

This evaluation was managed in accordance with GGGI's evaluation policy. Within GGGI, the evaluation was managed by the Impact and Evaluation Unit (IEU) which was responsible for:

- Supervising the delivery of the evaluation deliverables by the independent evaluator;
- Supporting the independent evaluator with coordinating activities during the visit to Thailand and with phone calls in GGGI HQ;
- Accompanying the independent evaluator to meetings with key stakeholders in Thailand;
- Providing feedback on a presentation of findings and preliminary recommendations; and
- Coordinating draft report feedback with stakeholders.

Annex B: Theory of Change

This section was taken from the Evaluation Approach Paper. The following theory of change is for the Thailand Country Program overall.



B1. GGGI implementation approach, evidence and assumptions underpinning the Theory of Change

Numerous studies conducted under the aegis of the IPCC, indicate that the **provision of energy services and specifically the intensive use of fossil fuels**, has significantly contributed to the historic increase of anthropogenic GHG concentrations in the atmosphere⁴⁰. In this respect, an enhanced use of **energy efficiency (EE)**⁴¹ and **renewable energy (RE)**⁴² has been indicated as fundamental to decouple energy consumption and levels of GHG emissions.

The shift from a carbon-energy intensive economy to a more energy efficient and greener one requires a holistic approach involving policies, financing and capacity aspects, as described in many research and best practices studies⁴³.

Reducing the institutional, policy, financing and capacity barriers to enable greater uptake of EE and RE in the industrial sector - one of the main economic drivers in Thailand – constitutes the core of GGGI's intervention in the country. GGGI believes, based on analysis undertaken⁴⁴, that the creation of a more conducive environment, where the industrial sector has easier access to increased finance, better knowledge about energy efficiency/renewable energy/GHG emissions nexus and improved support by well-coordinated government agencies, would lead to more effective implementation of energy efficiency and renewable energy measures and ultimately to a decrease of GHG emission in the industrial sector.

A. GGGI work at policy and institutional level: developing industrial sector action plans to implement the national high level GHG emissions targets (GHG emissions reduction roadmap and NDC Industrial Action Plan)

In 2015, the Royal Thai Government adopted the Climate Change Master Plan (2015-2050) which sets the overall national GHG emissions reduction target at 7-20% by 2021 compared to BAU projections (2005) and the energy intensity reduction target in all productive sectors at 25% compared to BAU (2005) by 2030. It also indicates the need to: a) identify GHG emissions reduction targets and capability related to green energy and energy conservation by 2020, b) promote the development, use and improvement of GHG emissions models in all sectors, and c) encourage participation from businesses and the general public with respect to developing climate change related plans.

From August 2014 to July 2016, GGGI has been working on **developing an 'Industry Greenhouse Gas Reduction Roadmap to support the Implementation of Thailand's Climate Change Master Plan' (the 'Roadmap') with the specific objective of cascading the high-level Climate Change Master Plan targets**

⁴⁰ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp <https://www.ipcc.ch/report/ar5/>

⁴¹ IPCC, Working group III: Mitigation, Climate Change <https://www.ipcc.ch/ipccreports/tar/wg3/index.htm>

⁴² IPCC, 'Renewable energy and climate change mitigation, Special report for the IPCC, 2012

⁴³ OECD 'Green Growth Best Practice, Lessons from country experiences', 2011 and World Bank 'Inclusive Green Growth: the pathway to Sustainable Development' 2012

⁴⁴ Copenhagen Centre on Energy Efficiency /UNEP, 'Best Practices and Case Studies for Industrial Energy Efficiency Improvement' 2016

and priorities into executable sector-based plans.

More specifically the Roadmap focuses on three industrial sub-sectors: automotive parts production, frozen seafood and palm oil.

Completed in January 2016, the Roadmap provides:

- Findings related to GHG emissions data availability and recommendations on how to improve data collection, data quality and the institutional setting
- Specific GHG emissions reduction action plans⁴⁵ for the automotive parts production, frozen seafood and palm oil industries. The action plans advise the government to establish voluntary Long-Term Agreements with each sector to define specific short-medium and long-term targets and actions to reduce their emissions
- Over-arching recommendations on institutional setting, knowledge improvement of relevant stakeholders and assessment of the current financial support schemes.

The overall methodological approach adopted in developing the sub-sector action plans has been endorsed by the main project stakeholders⁴⁶ and considered as replicable for other sub-sector industries.

In addition to the Roadmap and following the Paris Agreement, GGGI has extended its work to support implementation of Thai INDCs.

The country has set a new ambitious GHG emissions reduction target namely 20% decrease from projected BAU level (2005) by 2030. Subject to adequate support by the international community⁴⁷, the target could increase up to 25%. Since May 2016, the government has been working on developing a national 'NDC Roadmap' covering four key economic sectors: 1) electricity generation 2) residential and commercial buildings, 3) transportation and 4) industry.

A systematic approach for the actual implementation of the NDC Roadmap is lacking. There is a need to translate the economy-wide NDC targets into sectorial targets, mainstream them into specific plans and develop implementation mechanisms.

Building on the GHG emissions reduction Roadmap, **GGGI has closely worked with ONEP to provide expert guidance on how to cascade NDC Roadmap targets into industrial sector plans. In this respect, a specific 'NDC Industrial Action Plan' focusing on energy efficiency improvement has been completed and submitted to ONEP in February 2017.** Based on the initial consultation with relevant

⁴⁵ The development of the sub-sector action plans has been underpinned by two additional studies related to emissions projections (Emissions Projection Report - EPR) and analysis of the most cost-effective measures to reduce GHG emissions (Technical and Economic Analysis Report - TEAR). Based on these analysis, for all sectors the most recommended cost-effective measures to reduce GHG emissions are related to energy efficiency.

⁴⁶ GGGI developed the Roadmap in close consultation with the members of the Project Steering Committee (PSC) and with wider audiences participating in the six workshops GGGI organized on the GHG emissions reduction issue.

⁴⁷ ONEP 'Thailand Intended Nationally Determined Contribution (INDCs) submission to UNFCCC', October 2015

stakeholders and past analysis, the Plan provides recommendations on actions to be undertaken in the medium and long-term to achieve the NDC targets for the industrial sector. Recommendations are grouped in 4 categories: Institutional and regulatory arrangements, government system and resource development, further studies for sub-sector specific approaches and knowledge and capacity building.

Both the Roadmap and the NDC Industrial Action plan suggest the Government to negotiate voluntary Long-Term Agreements⁴⁸ with the industrial sector to define short, medium and long-term targets and actions to reduce GHG emissions.

Energy-related VAs (e.g. covering energy efficiency or GHG emissions) between government and industry have been used since the 1990s and there is an extensive experience with and analysis of the effectiveness of such agreements. In this respect, there are widely differing views on the environmental effectiveness of VAs. Some governments and industry indicate that they are highly effective in reducing GHG emissions while others are much more sceptical of their real impact⁴⁹. The UNFCCC indicates that those VA's which have a target negotiated between governments and industry appear to be most effective.

It is generally considered difficult to assess and compare the environmental effectiveness of VAs due to their different structures and different implementation contexts and sectors. However, it is widely recognised that VAs can have very positive non-environmental effects in terms of raising awareness of climate change issues and mitigation activities within industry, both at management and operational levels, and in creating a good environment for a positive dialogue between industry and government.

The Royal Thai Government, in particular the Department of Alternative Energy Development and Efficiency (DEDE) in the Ministry for Energy, already operates a few voluntary agreements especially in the area of energy efficiency and has experience in this area.

Based on the theory of change, the implementation of both the Roadmap and the NDC industrial action plan will require the following preconditions:

- Definition of clear responsibilities between ONEP and the line Ministries for an effective implementation of the actions recommended in the Roadmap and in the NDC industrial action plan
- Strong engagement and agreement between government and industrial sector on actions needed to implement the Roadmap and NDC Industrial Action Plan and in particular to agree on establishing and operationalising the Long-Term Agreements.

B. At financing level: increasing investments in EE and RE in the industrial sector by improving access to capital and reducing risk perception (TAPEE and green bankable projects)

⁴⁸ In the international literature, these agreements are also referred as 'voluntary agreements' or 'negotiated agreements'

⁴⁹ OECD and IEA 'Policies to Reduce Greenhouse Gas Emissions in Industry - Successful Approaches and Lessons Learned', information paper, 2003

Despite the efforts and success of the Thai Government's financing mechanisms⁵⁰, limited access to capital and the perception that EE/RE investments are of high-risk still constitute relevant barriers to a greater uptake of EE and RE in the industrial sector⁵¹ and in particular by SMEs.

In this respect, one of the supporting measures indicated in the '**GHG emissions reduction roadmap for the automotive parts industry**' is to attract national and international financing to reduce high operating/capital costs and/or risks⁵². This recommendation is echoed in the '**NDC industrial Action Plan**' where the necessity of establishing innovative financing mechanisms to attract national and international financing is listed as part of the long-term actions to be undertaken to achieve INDC targets in the industrial sector.

In line with these recommendations, GGGI is currently working with relevant stakeholders to: a) improve access to capital for energy efficiency projects by SMEs in the automotive parts sector (TAPEE program) and b) develop two green bankable projects to attract financial stream from potential financiers.

This is an example of GGGI moving along the value chain: from developing actions plans to implement them by raising investments.

In terms of expected outputs, GGGI is currently working on:

1. Developing **2 green projects**⁵³ that cumulatively reach USD 3M of financial deals. GGGI will identify potential green projects, prepare high quality proposals or business plans and match them with potential investors and financiers.
2. Designing an **energy efficiency risk-sharing facility** for Thai auto parts industry. This sectoral, dedicated facility is intended to encourage local financial institutions to invest in energy efficiency project upgrades and if appropriate, it will include a guarantee fund with concessional finance targeted at reducing credit risks of borrowers. GGGI is closely working not only with local FIs but also with the MDBs and climate funds such as the Green Climate Fund (GCF) for the

⁵⁰ The Royal Thai Government has been operating energy conservation financing schemes since the 90s following the adoption of the Energy Conservation Promotion Act and the establishment of the ENCON fund. The latter was disbursed through different channels and in particular, through the Energy Efficiency Fund (EERF) and the ESCO fund. The EERF (2003 -2011), initially endowed with USD 50 million, was established to increase the availability of debt financing for EE and RE projects while reducing the borrowing costs for projects from 'designated' large 'energy consuming' facilities. Based on the amount of mobilized investments (USD 521 million), the EERF was quite successful in stimulating local banks' financing and in sustaining around 294 projects that contributed to 0.98 million ton CO₂eq GHG emissions reduction. The ESCO fund (2008 – 2013), endowed with USD 15 million, was established to support SMEs and ESCOs to access and leverage capital for EE/RE projects. Funds were channelled through various mechanisms: equity investments, venture capital, equipment leasing, carbon markets, technical assistance and credit guarantee facilities. By 2012 the fund proved to be successful with the financed EE/RE projects projected to create energy savings of 23.97 ktOE/year. References: World Bank, 'Thailand: Clean energy for green low-carbon growth', 2011 and CCAP, 'Case Study: Thailand Energy Conservation ENCON fund', 2012

⁵¹ GGGI 'Industry GHG Reduction to support the implementation of Thailand's climate change master plan: Technical and Economic analysis', October 2015

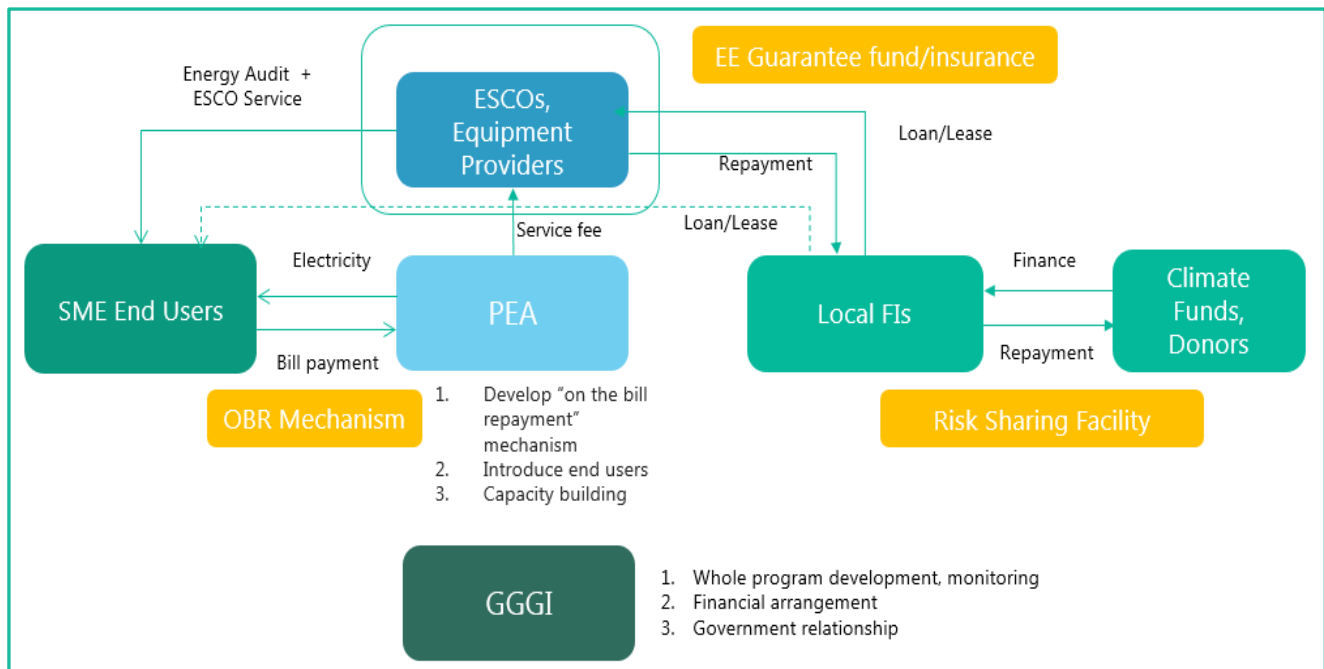
⁵² Idem, page. 60

⁵³ Currently the country team is working on the identification of a list of suitable green projects. Those projects may focus on renewable energy or energy efficiency.

operationalisation of the facility. (TAPEE)

3. Carrying out **energy audits** to create a pipeline of 200 bankable EE projects ready for investment within the energy efficiency risk sharing facility. (TAPEE)
4. Designing **on a bill repayment mechanism (OBR)**⁵⁴ initially targeting the Thai auto parts industry and later extended to other industries. (TAPEE)

Figure 4: TAPEE Business Model



All combined, the above outputs are expected to mobilise USD 33 M in energy efficiency and renewable energy investments by 2030.

International experience shows that there have been successful cases of risk sharing facilities in developing and emerging economies, with comparisons limited by risk sharing facilities being structured in different ways to respond to local contexts and sectors⁵⁵.

The limited review of the effectiveness of on-bill repayment mechanisms shows that the instrument has potential to promote energy efficiency, especially for SMEs, and mostly in those contexts where there is an appropriate supporting regulatory environment⁵⁶.

⁵⁴ The OBR is a mechanism which enables building owners to repay loans for eligible energy efficiency and renewable electricity generation projects through their monthly utility bills.

⁵⁵ Institute for Industrial Productivity 'Delivery mechanisms for financing of industrial energy efficiency. A collection of best practices', July 2012 and International Energy Agency, 'Joint Public-Private Approaches for energy efficiency finance', 2011

⁵⁶ National Small Business Association, 'On-bill financing, helping small business reduce emissions and energy use while improving profitability', 2009 and American Council for an energy efficiency economy, 'On bill financing for energy efficiency improvements. A review of current program challenges, opportunities and best practices', 2011.

Based on the theory of change, the mobilisation of EE/RE investments will require the following preconditions:

a. For implementation of EE risk sharing facility:

- Climate funds are committed and disbursed
- Local FIs provides loans to implement EE projects proposed by automotive parts SMEs and ESCOs
- SMEs and ESCOs propose eligible EE projects
- Energy audits are successfully performed with respects of international standards

b. For implementation of OBR mechanism:

- The legal framework for the OBR implementation is in place
- PEA successfully lead the OBR operationalisation
- ESCOs and end users opt in the OBR mechanism

c. For Green projects:

- National or international funds are committed to finance 2 green bankable projects

C. At capacity building level: raising awareness and improving knowledge about GHG emissions mitigation and energy use nexus

Awareness and access to technical knowledge are considered fundamental to mobilise relevant stakeholders toward a greater uptake of energy efficiency and renewable energy. Implementation of action plans and access to financing instruments are possible only if relevant stakeholders understand the overall EE/RE economic and environmental cost/benefits.

Based on the Technical and Economic Analysis conducted by GGGI, the consulted stakeholders indicated 'lack of knowledge of abatement measures' as one of the major barriers to implement EE/RE measures in the industrial sector.

In this regard, GGGI has delivered six awareness rising and capacity building workshops. Three of them have targeted a general audience including government officials, NGOs, industries representatives, academia while the other three targeted stakeholders from the palm oil, automotive parts and frozen seafood industries.

More capacity building activities are planned to be delivered on NDC implementation and on preparation of green projects in 2018.

Based on the theory of change, improved knowledge on GHG emissions mitigation measures and energy use nexus requires the following preconditions:

- Relevant and influential stakeholders attend the provided trainings
- Provided knowledge is relevant and fits the audience's needs and background

Assumptions

The above theory of change is based on a set of assumptions. The achievement of the desired outcomes is believed to happen if the following conditions hold true:

- Political commitment to GHG emissions reduction is maintained at national and international level
- Political willingness to enforce and reform, if necessary, recommended policy measures and regulatory arrangements remain
- Key decision makers and staff in both government and industrial sector do not undergo to a substantial reshuffling
- Engagement between the government and the industries remains strong
- SMEs retain staff able to understand government directions, policy enforcement and financing opportunities (costs/benefits)
- Banks and financial institutions maintain their commitments to expanding their business to industries for the implementation of energy projects
- Access to financing opportunities and information continue to target the right audience
- The current level of government incentives remains stable or increases
- The industry sector continues to be a priority sector for the government
- Interest rates remains attractive for investments
- Energy price remains high, ensuring energy efficiency measures are still attractive
- Access to affordable energy efficiency and renewable energy technology increases
- The economic situation in Thailand remains stable
- Willingness of the relevant stakeholders to attend training and to use the acquired knowledge remains
- GGGI program budget is available and remains stable
- Strong technical support continues to be provided by relevant GGGI units

- Strong coordination between the country office and HQ remains
- Unchanged strategic directions for the country program

Annex C: Review of project logframes

This annex summarizes comments on the logframes for the three projects considered for this evaluation.

High-level feedback on the logframe for the GHG Roadmap includes:

- It is not clear from the logframe that the output focuses only on three industrial subsectors. It would have been improved by adding specific mention to the sectors (or generically if not yet known) and include indicators for each industry.
- Relating to indicators, it would also have increased value to have developed indicators for key recommendations in the GHG Roadmap. Other outcomes not directly tracked include:
 - Demonstration/declaration of ownership by relevant government agency(ies) and/or state-funded institutions, ideally including a mechanism for tracking progress.
 - Evidence of actions directly tied to the GHG Roadmap, which may include: more specific subindustry plans, efforts to improve data quality/availability, specific programs or other technical/financial support for projects started or enhanced, increased project activity for targeted sectors, capacity building initiatives for the targeted sectors, efforts to negotiate long-term agreements, the Steering Committee structure being maintained to support related activities, etc.
 - An alternative approach for indicators could be tracking progress overcoming barriers identified. That is linked to GHG Roadmap activities or outputs.
 - Periodic future updating of the Roadmap for the three sectors.
 - Replication of roadmap approach, such as for other sectors within Thailand or directly stimulating activities in other countries.
- The link between Outcome and Impact is missing step(s) including actual implementation of activities which could occur absent formal adoption of the plan and adoption of the plan does not automatically lead to action. There is no clear link between the Output and Outcome phase and the outcome is completely outside GGGI's control. It is not a given that the GHG Roadmap that is the output for the project would (or should) (a) be the same as that adopted by the Royal Thai Government especially as it only addressed three subsectors or (b) automatically be practical and implementable—these characteristics are not addressed in indicators for the activities or outputs. For example, it is known that the final product does not reference responsible parties for next steps, so is not directly implementable. Also, there are other ways the output could positively (or negatively) influence the Government so the outcome should be phrased more broadly.
- Impact: Having a specific % indicator for broad emissions reductions for impact based upon GGGI planning activities is not realistic.
- Output A/Activities A1.2 -1.4: comment– the endorsement by the project Steering Committee is being used as a proxy for assessing the relevance, appropriateness and quality of the outputs.

- Output B: suggestion: more nuanced assessment of improvement of capacity for relevant government officials and stakeholders to help ensure the best positioned stakeholders were able to effectively use knowledge gained, or it is clear they will be able to do so in the future. Tracking only workshop attendance gives little indication of sufficiency or relevance or stimulating future action. Note also that for Thailand there is significant turnover or shifting of positions within the government so the person originally trained may no longer be in a position to use the information and/or the person now responsible has not (yet) had their capacity built.
- Activities B1.1: suggestion: more nuanced measurement of capacity building activities to help ensure the right attendees were reached with the appropriate level of information. For example, numbers by targeted stakeholder type combined with feedback surveys.
- The assumptions column is incomplete and would be improved by either being more exhaustive or more clearly focusing on critical/key assumptions for success.

High-level feedback on the logframe for the Accelerating NDC Implementation includes:

- In general, having a baseline assumption column is helpful, however the assumptions reflected appear incomplete in that they are fairly narrow and binary. This plan is not the only possible path to reach the outcomes or impacts.
- it would also have increased value to have developed indicators for key recommendations in the NDC Action plan. Examples of relevant report outcomes not directly tracked include:
 - Mechanism to recognize “clear government vision roles, responsibilities and cooperation” or “effective communication to, and negotiation with, targeted stakeholders.” It is not clear how would it be known if this succeeded. Also, it is not clear in the document who the parties responsible for implementation of the NDC Action Plan would be.
 - The clear objectives set during the preparation phase action plan does have an implied indicator of ‘clear objectives,’ with the recommendation that each activity have a trackable milestone set.
 - Increased focus on waste handling and/or transportation and logistics; examples of relocating factories to industrial zones; and the recommended periodic review could all be appropriately tracked as indicators.
- Impact: Having a specific % indicator for impact at the national level based upon GGGI activities is not realistic. There are indicators directly linked to project development, but there is no GHG emission reduction number directly associated with the projects actively supported by GGGI, this would be more reasonable to track/calculate than a general % reduction indicator.
- It is unclear if the endorsement by the Government referred to in Output B is the same as the adoption referred to in Outcome 1.

- Outcome 1: The baseline assumption that there is no NDC action plan appears to be outdated as the Royal Thai Government is in the process of developing an NDC action plan for all components of the NDC, of which the industrial sector is only one.
- Output A /Activities A1-A5: The indicators could be further improved by having more nuanced parameters, such as for assessing quality, progress achieved rather than number of meetings, and indications of actual visibility raised rather than only deliverables. It is unclear if an M&E plan was developed and/or any M&E activities were conducted.
- Output B/Activities B1-B3: For the future, suggest separation of completion of the deliverable and government endorsement as it is possible that an otherwise appropriate plan would not ultimately be endorsed for political reasons.
- Output C/Activities C1-C4: The output and activities list provide an outline of expected services. As feasible, they could be improved by clarifying the boundaries of what types of projects and what types of assistance qualify. Minor clarification to C1, this appears to refer to potential projects not implemented projects.
- Output D/Activities D1-D3: As mentioned above, the number of capacity development activities or having a plan all do need to be tracked, but do go far enough to address the quality, sufficiency, or relevance of those activities.

High-level feedback on the logframe for TAPEE includes:

- All Outputs and Activities in the logframe were designed to also serve as a high-level work plan. This provides a clear plan and link, but may be overly restrictive, necessitating modifications as the program evolves.
- There is no outcome directly related to impacts or sustainability beyond the life of the TAPEE project itself, such as stimulating the ESCO industry, ongoing use of the on-bill financing and/or risk sharing facility.
- As above, the assumptions appear overly simplistic.
- Impact: the indicator does not directly link to TAPEE activities, rather it relates to implementation of the NDC more broadly which is not directly linked.
- Outcome 1: This outcome appears to be a modest short term as it simply indicates an increase in financing for EE projects as demonstrated by one EE project by the end of 2018. Based upon the current schedule of activities, it is not yet clear whether it will be possible to achieve this in 2018.
- Output A: helpful that stakeholder and Country Team involvement are included directly in the logframe under effective project management. However, it may have been helpful to add ensuring the appropriate stakeholders are engaged which is more inwardly-focused than ensuring stakeholder ownership. It is also not clear how ownership would be demonstrated.

Annex D: Data collection

D1. List of documents and data reviewed

PROJECT: Industry Greenhouse Gas Reduction Roadmap to support implementation of Thailand's Climate Change Master Plan (2014-2016)	
N.	Document title
1.	BMUB project proposal
2.	BMUB project workplan
3.	GGGI logframe GHG Roadmap
4. – 6.	Technical reports and final GHG emission reduction Roadmap: Emissions projection report, GHG diagnostic report, GHG reduction roadmap, Technical and Economic analysis
7.	Stakeholder engagement plan
8.	Capacity Development material and reports
9.	BMUB Final report July 2016
10.	GGGI End of year project results 2015
11.	GGGI End of year project results 2016
12.	BMUB Means of verification
13.	Budget information
PROJECT: Accelerating Implementation of Thailand's Nationally Determined Contribution (2016 – ongoing)	
14.	GGGI project proposal NDC
15.	GGGI logframe NDC
16.	GGGI NDC Action Plan for Industrial sector
17.	GGGI monitoring monthly reports
18.	GGGI End of year project results 2016
19.	Budget information
20.	Thailand's NDC Documentation
PROJECT: Thai Automotive Part Energy Efficiency Program (2016 – ongoing)	
21.	GGGI project proposal TAPEE
22.	GGGI Logframe
23.	TAPEE Investment Teaser
24.	Budget information
25.	TAPEE project concept

26.	Thailand TAPEE program summary
27.	TAPEE program – Thailand brief description
28.	Terms of Reference and Contracts for Consultants
Corporate documents	
29.	MoU between ONEP and GGGI, 2015
30.	Country Planning Framework 2017
31.	2015-2016 and 2016-2018 GGGI Work program and budgets
32.	Sustainability and Safeguards Policy 2014
33.	Gender Equality Strategy 2016-2020
34.	Pro-Poor Green Growth Operational Guidance
35.	2016 Annual Report
Other Evaluations of GGGI	
36.	Joint Donor Review of the Global Green Growth Institute October 2015
37.	Independent Evaluation of the Global Green Growth Institute’s Progress against the Strategic Plan 2015-2020
38.	Second Joint Donor Review of GGGI 2013
Other contextual documents	
39.	Mitigation Momentum Thai ESCO Market Analysis
40.	GGGI Evaluation Rules
41.	TGO Roles of capacity building in Climate Actions presentation
42.	Thailand Country Team Briefing Presentation
43.	CCAP Case study Thailand Energy Conservation ENCON Fund 2012
44.	World Bank Thailand Clean Energy for green low-carbon growth 2011

D2. Stakeholders Consulted

Feedback was received from the following stakeholder organizations, organized by type:

- GGGI (5)
 - IEU
 - Thailand Country Team
 - Green Investment Services

- Subconsultants (3)
 - Energy Efficiency Services Limited (EESL)
 - International Institute for Energy Conservation (IIEC)
 - Excellent Energy International

- Thai Government/Public Organization sector (11)
 - Office of Natural Resources and Environmental Policy and Planning (ONEP)
 - Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)
 - Department of Industrial Works (DIW)
 - Office of the National Economic and Social Development Board (NESDB)
 - Provincial Electricity Authority (PEA)
 - National Food Institute (NFI)

- Academia (5)
 - Joint Graduate School for Energy and Environment (JGSEE)
 - Sirindhorn International Institute of Technology (SIIT)
 - Kasetsart University (KU)
 - Mahidol University (MU)

- Private / Industrial Sector (2)
 - Saim City Cement Public Company Limited
 - Thai Esco Association (same contact as Excellent Energy)

- Other program implementers (1)
 - Embassy of the Federal Republic of Germany, Bangkok

D3. Interview topics by stakeholder group

This subsection provides an indicative listing of interview topics by stakeholder group. (See Table 2)

These topics were refined and rephrased into a question format for each unique stakeholder scheduled for interviews. It is also important to note that the interview topics lists were used as somewhat flexible guides, rather than rigid questionnaires to better follow the flow of the interviews and allow time to follow the most interesting themes for that stakeholder in the time allowed.

Table 2. Interview topics by stakeholder group

Topic	GGGI	Subconsultants	Thai Government/public sector	Academia	Private/ Industrial	Other implementers
General/overarching						
Name, role, background	√	√	√	√	√	√
National context			√	√	√	√
National priorities and initiatives			√	√	√	
What is still needed/Next steps for Thailand	√	√	√	√	√	√
Other/external factors influencing progress	√	√	√	√	√	√
Familiarity with GGGI activities in Thailand (outputs, status, how evolved)	√	√	√	√	√	√
Familiarity with GGGI's stakeholder engagement activities	√	√	√	√	√	
Role of GGGI relative to national activities/priorities/linkages			√	√	√	√
GGGI's timeline/level of effort relative to need	√		√	√	√	
Formal/informal partnerships with GGGI and other stakeholders	√	√	√	√	√	√
Formal/informal collaborations within/between relevant gov't bodies	√		√			
Engagement of industrial sector with government re: GHG emissions	√		√		√	
Role of subconsultants	√	√	√		√	
Significance of GGGI relative to national activities			√	√	√	√
Perceptions of GGGI activities/accessible/appropriate/ needs met?			√	√	√	√
Strengths/weaknesses/most impactful component of GGGI activities	√	√	√	√	√	√
Surprises (positives or negatives) from GGGI activities	√	√	√	√	√	√
Implementation challenges (internal or external)	√	√	√			
Coordination (within GGGI and/or with Gov't counterparts)	√	√	√			
Linkages/coordination/synergies with programs by other 'donors'	√	√	√			√
GGGI risk mitigation activities	√	√				

Topic	GGGI	Subconsultants	Thai Government/public sector	Academia	Private/ Industrial	Other implementers
Sustainability/resource mobilization strategy (GGGI)	√	√				
Sustainability/resource mobilization strategy (Government)	√		√			
Alignment with GGGI's strategic mission and priorities	√					
Safeguards, poverty reduction, and social inclusion (including gender)	√	√	√			
Focus Area 1: GHG Roadmap						
Examples of current usage promoting transformational change	√	√	√	√		√
Synergies/contradictions with other plans/initiatives	√	√	√	√		√
Familiarity with/perceptions of capacity building activities			√	√	√	
Subsector(s) targeted			√	√		
Barriers/ways to address them	√	√	√	√		
Level of innovation (as relevant)	√		√	√		
Contributing to desired outcomes?	√	√	√	√		√
Expectations for the future impact/sustainability of change	√		√	√		
What else would have been/be needed to increase usefulness	√		√	√		
Focus Area 2: Accelerating the NDC						
Current status/activities	√		√	√		√
Examples of current usage promoting transformational change	√		√	√		√
Lessons learned related to the Roadmap used to develop NDC acceleration?	√		√			
Synergies/contradictions with other plans/initiatives	√	√	√	√		√
Familiarity with/perceptions of capacity building activities			√	√	√	
Subsector(s) targeted			√	√	√	
Barriers/ways to address them	√		√	√	√	√
Level of innovation (as relevant)	√		√	√		

Topic	GGGI	Subconsultants	Thai Government/public sector	Academia	Private/ Industrial	Other implementers
Contributing to desired outcomes?	√		√	√	√	√
Expectations for the future impact/sustainability of change			√	√	√	
What else would have been/be needed to increase usefulness			√	√	√	
Focus Area 3: TAPEE						
Lessons learned related to the Roadmap or NDC acceleration used to develop TAPEE?	√		√			
Synergies/contradictions with other plans/initiatives	√		√	√	√	√
Sector(s) targeted	√	√	√	√	√	
Barriers/ways to address them	√	√	√	√	√	
Level of innovation (as relevant)	√	√	√	√	√	
Issues relating to ESCo model for Thailand	√	√	√	√	√	

MANAGEMENT RESPONSE TO THE RECOMMENDATIONS FROM THE INDEPENDENT EVALUATION OF GGGI THAILAND COUNTRY PROGRAM

April 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
COUNTRY ENGAGEMENT			
ENGG1	<p>It is important for the Country Representative to coordinate all stakeholder engagement, due to sensitivities. Even when ideas or initiatives are spearheaded from other units or offices, the Country Representative should be responsible for, and deferred to when necessary, all communication and stakeholder engagement as they are responsible for building and maintaining long-term relationships in the country. Stakeholder interactions need to be tailored to cultural and individual preferences, and the Country Representative is responsible for this understanding.</p>	<p>Agreed. To ensure this is the case moving forward: (1) coordination mechanisms between Country Representatives and other participating units has been strengthened; (2) specific instructions have been provided to all divisions/units to confirm that all in-country communications should go through Country Representatives.</p>	By end of 2018
ENGG2	<p>Periodically review the appropriateness of the counterpart agency. This review should include discussions with the current and any proposed new counterpart. The frequency will depend on the rapidity of change within the country, e.g. as priorities and duties between agencies evolve, as well as for each new project. For example, this counterpart</p>	<p>Agreed. As part of the design of new projects, the selection of appropriate counterparts will be carefully assessed prior to approval. Where appropriate opportunities arise, GGGI will seek to broaden its partnership base to raise visibility and strengthen its ability to impact green growth opportunities in the country. GGGI</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	function could be transferred from ONEP or temporarily delegated when focusing on implementation projects, depending on expectations regarding project characteristics long-term. Regardless, ONEP remains designated coordinator for international climate change-related activities for the Royal Thai Government.	agrees that this could involve maintaining strong relationships with an overall focal counterpart Ministry/Agency in the country, whilst also engaging additional counterparts for specific projects.	
PROJECT SELECTION & DESIGN			
PROJ1	Consider ability to increase visibility when selecting and designing projects. Make significant stakeholder engagement a cornerstone of projects, especially in the early stages of GGGI's country presence to help establish long term relationships and credibility.	Agreed. In many new or young GGGI country programs, a common activity has been to conduct a broad assessment of the green growth potential of a country, and then identify specific priority areas to which GGGI can focus its programming. Our experience has been that this approach provides an excellent way to engage broadly and build visibility with stakeholders, both within and outside of government. Where appropriate, GGGI will continue to use this approach in new or young country programs moving forward.	By end of 2019
PROJ2	Seek a vetting process with key stakeholders for new project concepts before committing significant resources. The degree of cooperation and long-term ownership of all key stakeholders should be assessed in the early stages of the project. This vetting	Agreed. GGGI's Project Cycle Management policy highlights the need to engage with partners on proposed new projects to ensure strong demand and support. The policy includes discussions with partners on their willingness to	Ongoing

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>process should include go beyond the direct counterpart and include stakeholders critical to the success of the project (e.g. for providing inputs or long-term ownership). To facilitate this, develop awareness/educational materials (e.g. for financial concepts) from the perspective of, and tailored to, different stakeholder audiences that minimizes jargon. This vetting process may also include discussions with other major donors with similar projects. Relevant project concepts may need to be postponed or declined if the long-term pathway to success is not (yet) sufficiently clear.</p>	<p>co-contribute to projects, which provides an indication of the level of local ownership for the project. GGGI will continue to ensure stakeholder support has been addressed when vetting proposals for new projects.</p>	
PROJ3	<p>Assess the inputs critical for project success before committing significant resources. For example, this could include data quality/availability, participation of specific stakeholders as discussed above as well as alignment with other projects/outputs. Where weaknesses are identified, a remedy should be built into the project design.</p>	<p>Agreed. Under GGGI’s Project Cycle Management policies, project proposals require a description of the key inputs required, as well as key risks and mitigation strategies that could affect project success. GGGI will continue to ensure these issues are thoroughly addressed when considering project proposals for approval.</p>	Ongoing
PROJ4	<p>Consider selecting projects that can show concrete results within a year, using a staged or incremental approach as needed. This will increase attractiveness for skeptical stakeholders or those with a very short-term perspective as well as help build credibility</p>	<p>Agree. GGGI agrees that being able to demonstrate ‘early wins’ can help build GGGI’s credibility and earn the trust and support of key partners, particularly in countries where GGGI is perceived as new or unproven. At the same</p>	Ongoing

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>longer term. GGGI's expectations regarding project scope and timeframes will need to be consistent with the counterpart's appetite to facilitate long-term sustainability. This means progress may be slower than GGGI originally anticipated.</p>	<p>time, the design of GGGI projects reflect the priorities of partner countries, which sometimes entails longer timeframes for results to be achieved. In the vetting and approval of new projects, GGGI will continue to assess the potential for quick wins on a case-by-case basis.</p> <p>In the case of the NDC Implementation project, the project has in fact yielded a concrete result, which occurred shortly after completion of this evaluation. A steel piping producer that GGGI had worked with on this project announced commitment to invest USD 1.2m towards energy efficiency measures, based on energy audits conducted by the Institute. Such early results will significantly help GGGI's efforts to demonstrate the viability of its work and build visibility and reputation amongst key stakeholders.</p>	
PROJ5	<p>Ensure there is a clear path of follow up and long-term ownership built into the design. All outputs should have identification of clear owner(s) for the next phase built into the project design and logframe KPIs. The type of owner would depend on the expected outcomes and next steps anticipated for each deliverable, it could be GGGI staff, a government body or specific official, or a third</p>	<p>Agreed. GGGI agrees that maximizing government ownership and uptake of project outputs is critical to enhancing impact. While GGGI's Project Cycle Management policies contain standard mechanisms (eg: logframes, risk matrices) that address this to some degree, there are always opportunities to strengthen this. This issue will be further assessed and</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>party such as the private sector or civil society stakeholder(s). This is especially relevant for planning outputs where no impact is possible without follow up after the immediate project. Other prerequisites for long-term sustainability should also be incorporated into the project design and logframe as appropriate. The logframe may need to be updated with more specific information at specified intervals.</p>	<p>actioned as appropriate, during the planned review of the Project Cycle Management policies later in 2018.</p>	
PROJ6	<p>Seek using in-country resources to the extent feasible to help build credibility as well as build capacity. Consider the profile of potential subcontractors from other locations in the context of and country perceptions relative to value, and whether a local partner is also appropriate. This could be done for example through informal conversations with stakeholders critical for success. In some cases, regional resources may be seen as sufficiently local and consultants with strong international reputations for that specialty may be seen as sufficiently trustworthy.</p>	<p>Partially agree. GGGI will work with local and regional resources in Thailand where possible and appropriate, but also notes that there are advantages in using international expertise in some circumstances. A combination of in-country and international resources might also be an appropriate option depending on the situation.</p>	Ongoing
PROJ7	<p>All key outputs should (also) be in the local language to facilitate use by targeted stakeholders. This means the need for translation for key project outputs as well as public minutes should be assessed and should</p>	<p>Agreed. To realize uptake of project outputs and benefits to targeted stakeholders, availability of the output documents in the local language is crucial. GGGI will take this into account when</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	be factored into project budgets from the outset or be a separate line item in general budgets. While there are clear benefits for deliverables being accessible internationally by being provided in a language such as English, to be effective they first need to be accessible within the targeted country to achieve their purpose.	designing new projects for 2019 onwards and ensure budget for translation is included where necessary.	
PLANNING			
PLAN1	Ensure the priorities of different units within GGGI are sufficiently aligned and that there is a clear and safe communication channel to clarify any issues/confusion.	Agreed. See GGGI's management response to ENGG1 above.	By end of 2018
PLAN2	GGGI should clarify its risk tolerance in terms of innovation and flexibility relative to ensuring specific outcomes. GGGI's own priorities and risk tolerance underpin the project selection process addressed above. There appears to be inconsistent messaging between the expectation for innovation and exploring untapped markets while seeking significant outcomes and impacts in relatively short timeframes.	Agreed. As noted in GGGI's response to a similar recommendation in a previous evaluation of progress against the Institute's Strategic Plan, this issue will be considered as part of the preparation of the Institute's Work Program and Budget for 2019-20, which aims to provide more room greater innovation and flexibility moving forward.	By end of 2018
PLAN3	Restructure the Country Planning Framework (CPF) process to be more time efficient and usable and ensure it is aligned to the Country Work Program and Budget as well as the	Partially agreed. GGGI agrees that CPFs should be prepared in a manner that is efficient and useful. Internal guidelines have been established to guide staff	By end of 2019

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>Country Business Plan. The portion of the CPF that is relevant for in-country work is the identification of themes that can serve to prioritize the work. The remainder appears to primarily be for an external donor audience. For example, the use of outcome estimates that are quite time-intensive to produce yet are of questionable accuracy should be reviewed.</p>	<p>on how Country Planning Frameworks (CPFs) should be developed and what they should contain. The framework set by these guidelines provides flexibility for country teams to adjust the CPF preparation process so that it is proportionate to the size, needs and available resources of individual country programs.</p>	
PLAN4	<p>Ensure new requests or shifts in direction from Headquarters are adequately explained and appropriate support provided. This is to minimize disruption and maximize the likelihood of buy-in and compliance. This will also increase perceptions of camaraderie and all operating on the same team toward the same overall goal.</p>	<p>Agreed. GGGI agrees with the importance of ensuring new policies or decisions are clearly communicated, and the mechanisms for doing this have been gradually expanded. Examples include regular emails from the Director-General, weekly talks on topics of organization-wide importance and GGGI Annual Meetings. Within country operations, communication channels include bi-weekly one to one calls and monthly regional and division wide calls.</p>	Ongoing
PLAN5	<p>Ensure GGGI’s planning approach is flexible enough to accommodate shifts in circumstances and priorities within the country. Any shifts in budget determined to be appropriate should be done in consultation with the Country Team, and potentially the direct counterpart for that project. In general,</p>	<p>Agreed. A package of reforms internally known as “iGROW” are currently being implemented to GGGI’s Work Program and Budget and Project Cycle Management systems, with the aim of ensuring that country and global program operations are more flexible and adaptive to</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>projects benefit from a stable plan and budget with a long enough horizon to complete the necessary tasks. However, as circumstances shift, a project may become less relevant or appropriate midstream and may best be postponed or abandoned if the circumstances have changed dramatically.</p>	<p>changes in circumstances or the emergence of opportunities. These changes are expected to take effect from 2019 onwards.</p>	
PLAN6	<p>Ensure sufficient resources have been put into existing projects before starting new projects. This will substantially increase the efficiency and minimize lost or stranded opportunities.</p>	<p>Agreed. A system of country budget envelopes will be adopted from 2019 onwards. This provides certainty on a base of core funding which country teams can draw from (and supplement with earmarked funding) to resource projects in country, subject to the approval of project proposals. And as noted under ENGG1, all in-country programming will now be coordinated through Country Representatives. Together, these reforms will better enable existing projects to be funded first before starting new ones, if that is viewed as the most appropriate decision.</p>	By end of 2018
BUDGETING			
BUDG1	<p>Ensure there is a stable general budget medium-term as well as for the duration of projects. This is to minimize disruptions and reputational risk and increase efficiency and staff morale as well as credibility with country stakeholders. This should not be seen as</p>	<p>Agreed. In terms of core funding, GGGI's budget is approved on a biennial basis, meaning that certainty of budgets for projects funded from this source is limited to, at most, 2 years at a time. However, GGGI is increasingly seeking to</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	inconsistent with PLAN5: Ensure GGGI's planning approach is flexible enough to accommodate shifts, which focuses on recognizing when a project is no longer viable, rather this focuses on ensuring enough certainty, for example, so that projects can be implemented without interruption or distortions.	secure earmarked funding for projects, which provides opportunities to secure funds over longer time horizons. For middle income countries such as Thailand, GGGI is also increasingly seeking to identify and harness internal country resources allocated to green growth objectives in a way that complements GGGI programs. In addition, as noted above in the response to PLAN6, GGGI is introducing reforms designed to provide greater autonomy and certainty to country teams on the level of resources available to them and how they wish to allocate it.	
BUDG2	Ensure there is sufficient and stable budget for all regular costs that are not project specific. This includes ongoing stakeholder relations, internal planning and coordination, monitoring and evaluation, learning, office administration. This may also include translation of corporate/international documents into the local language.	Agreed. The reforms described above in the response to PLAN6 should provide greater autonomy to country teams to make decisions on how available resources should be allocated to fund country operations, including costs that are not project-specific.	By end of 2018
STAFFING & ORGANIZATION			
STAF1	Increase resources available to the Thailand Country Team. In addition to the possibility of additional staff (ad hoc or full-time) or additional support from HQ, explore the possibility of regional teams or affinity groups	Agreed. GGGI agrees with the intention of matching resourcing levels with the ambitions of country programs. To supplement core budgetary sources, which are limited, GGGI has	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	to enhance synergies, pool resources, increase flexibility and build organizational cooperation and knowledge sharing.	significantly increased efforts to mobilize additional earmarked resources over the last year and has taken steps to provide more support to country teams in this regard. For example, an inaugural 4-day training course on resource mobilization was recently conducted, which a member of the Thailand country team attended. In addition, the reforms described above in the response to PLAN5 are intended to enable country teams to more easily access technical and investment expertise from other parts of GGGI and ensure these 'pooled' resources are deployed in an efficient and prioritized way across the organization. Within the corporate areas, a new 'job swapping' initiative has begun, enabling corporate staff to be assigned to country teams on a short-term basis to support operational needs whilst also building skills and internal cohesion.	
PROJECT SPECIFIC			
GHG Roadmap-1	Develop a plan with budget to increase uptake and ownership of the Roadmap. This could include, for example, seeking adaptation of the calculation approach for other sectors by GGGI, another initiative and/or an appropriate government entity, and/or another GGGI country. It could also include work to simulate the development of	Agreed. Subject to funding availability, the Thailand country team will explore a possible follow-on project to address uptake for both the GHG Roadmap and NDC Action Plan.	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
	<p>industry agreements, new capacity building/industry engagement activities to increase usage and/or brainstorming sessions on other activities that can build upon the material provided in the GHG Roadmap. Develop an updated logframe reflecting this phase of activities focused on increasing impact and long-term sustainability/transformational change.</p>		
NDC Implementation-1	<p>Develop a plan with budget to increase uptake and ownership of the NDC Action Plan. As with the GHG Roadmap this could include, for example, include work to simulate the development of industry agreements. It could also include new capacity building/industry engagement activities beyond the limited activities currently planned to increase usage and/or brainstorming sessions on activities that can build upon the material provided in the NDC Action Plan.</p>	<p>Agreed. See above response to GHG Roadmap-1.</p>	By end of 2018
NDC Implementation-2	<p>Develop factsheets or case studies with project examples (real if possible, hypothetical if necessary) targeted to industrial SMEs. This will not only help to solicit participants but will extend the reach of the outcomes achieved.</p>	<p>Agreed. This will be done as part of the ongoing NDC implementation project. Shortly after the completion of this evaluation, a steel piping producer that GGGI had worked with on this project announced commitment to invest USD 1.2m towards energy efficiency measures,</p>	By end of 2018

No.	RECOMMENDATIONS	MANAGEMENT RESPONSE	IMPLEMENTATION TIMELINE
		based on energy audits conducted by the Institute. Such concrete initial results will be included in communication materials and shared with government and industry partners, to demonstrate viability and promote further uptake of the proposed actions in the NDC Implementation Plan.	
TAPEE-1	Monitor progress carefully to see if TAPEE gains more traction. TAPEE is currently at a somewhat fragile state with some positive progress, yet also significant stakeholder concerns. Therefore, it should be closely monitored to see if it increases in viability, stakeholder support and achieves successful design of instruments and implementation of projects using the instruments as designed.	Agreed. GGGI's Thailand country team will work closely with investment colleagues to monitor TAPEE moving forward.	By end of 2018
TAPEE-2	More deeply engage Country Team for help liaising with stakeholders. As multiple projects are being implemented, it is important that long-term stakeholder relationships are maintained. A loss of trust or credibility in one project may significantly impact the likelihood success of other current and future projects.	Agreed. As noted above under ENGG1, all in-country activities will be coordinated through GGGI country teams moving forward.	By end of 2018

/End