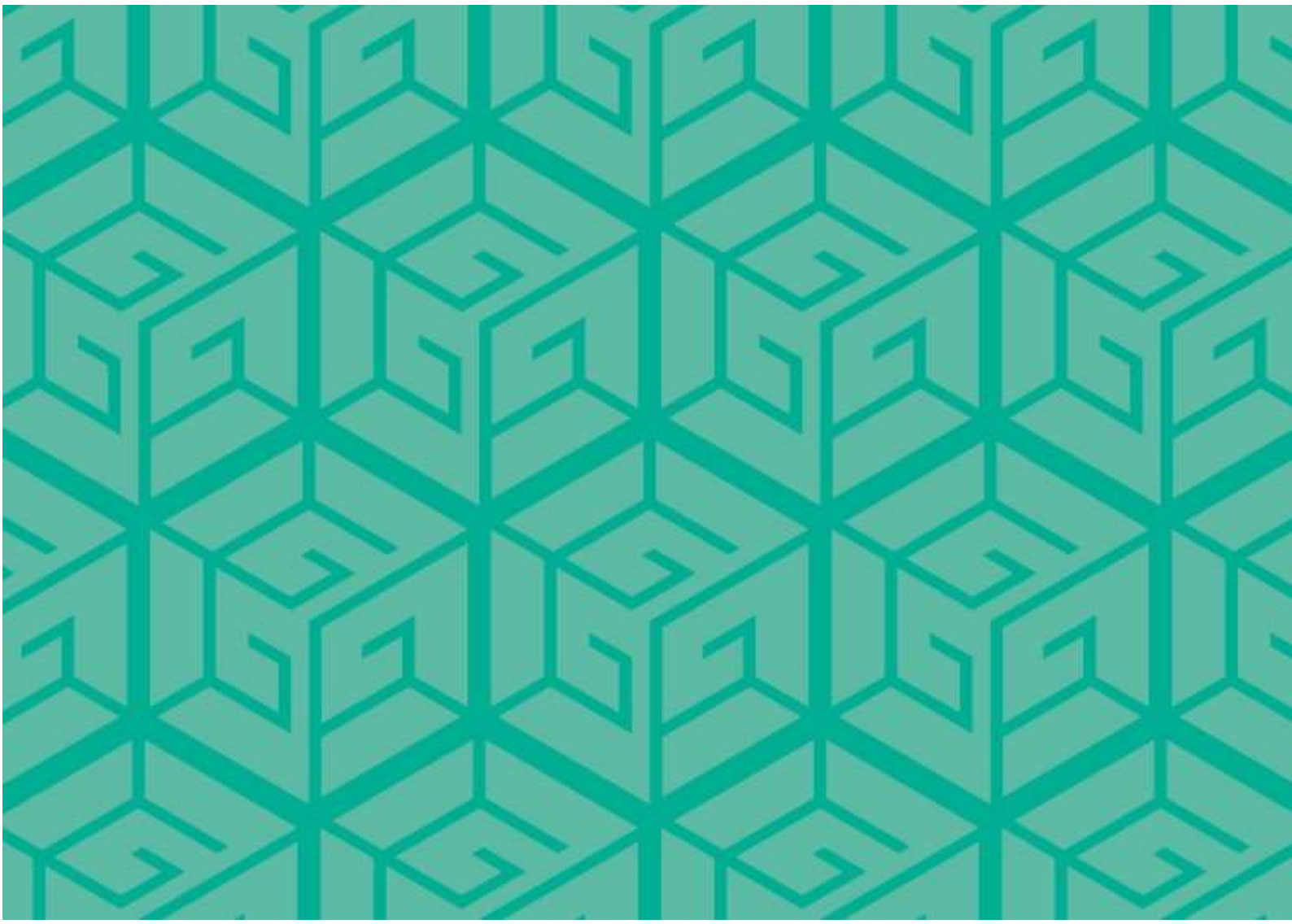




Green Growth Program Phase 2 (2016 – 2020) – Executive Summary of Results –



Global Green Growth Institute

**Prepared by:
GGGI Indonesia**

November 2020

The following executive summary provides an overview of the main results achieved through the GoI-GGGI Green Growth Program Phase 2 (GGP2, 2016 – 2020). A detailed results report will be shared with the GGP Steering Committee for the review of contents, figures, numbers and text information.

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List of Acronyms

Acronym	English	Indonesian (if applicable)
BAU	Business as Usual	
CK	Central Kalimantan	
CMEA	Coordinating Ministry of Economic Affairs	
DAK	Special Allocation Fund	Dana Alokasi Khusus
DN KEK	National Council for Special Economic Zones	
DRPD	Dewan Perwakilan Rakyat Daerah Provinsi	Provincial Regional Representative Council
eCBA	Extended Cost Benefit Analysis	
EK	East Kalimantan	
ER	Emission Reductions	
ERP	Emission Reduction Program Document	
FCPF	Forest Carbon Partnership Facility	
GCF	Green Climate Fund	
GG	Green Growth	
GGPII	Green Growth Program Phase II	
GGPIII	Green Growth Program Phase III	
GGP&I	Green Growth Planning & Implementation Division	
GoI	Government of Indonesia	
HWMP	Hazardous Waste Management Plant	
IPSD	Investment & Policy Solutions Division	
KHG	Peat Hydrological Area	Kawasan Hidrologis Gambut
KSP	Office of Presidential Staff	Kantor Staf Presiden
LAN	National Institute of Public Administration	Lembaga Administrasi Negara
LCDI	Low Carbon Development Initiative	
LoI	Letter of Intent	
MEMR	Ministry of Energy and Mineral Resources	Kementerian Energi dan Sumber Daya Mineral (ESDM)
MoEF	Ministry of Environment and Forestry	Kementerian Lingkungan Hidup dan Kehutanan (KLHK)
NDA	Non-Disclosure Agreement	
NDC	Nationally Determined Contributions	
NIPA	National Institute of Public Administration	Lembaga Administrasi Negara
NOL	No-Objection Letter	
NTT	East Nusa Tenggara	Nusa Tenggara Timur
PLN	State Electricity Company	Perusahaan Listrik Negara
PPA	Power Purchase Agreement	
RENSTRA	Medium-Term Sectoral Strategic Plan	Rencana Strategis
RKP	Government Workplan	Rencana Kerja Pemerintah
RKTP	Provincial Forestry Plan	Rencana Kehutanan Tingkat Provinsi
RPHJP	Long Term Forest Management Plan	Rencana Pengelolaan Hutan Jangka Panjang
RPJMD	Regional Medium-Term Development Plan	Rencana Pembangunan Jangka Menengah Daerah
RPJMN	National Medium-Term Development Plan	Rencana Pembangunan Jangka Menengah Nasional
RPSP	Readiness and Preparatory Support Proposal	
RE	Renewable Energy	
RUED	General Regional Energy Plan	Rencana Umum Energi Daerah
RUED-P	General Plan for Provincial Energy	Rencana Umum Energi Daerah Provinsi
SDG	Sustainable Development Goals	Tujuan Pembangunan Berkelanjutan

SEZ	Special Economic Zone
SK	South Kalimantan
SOP	Standard of Procedures
SPRSI	Safeguards, Poverty Reduction and Social Inclusion
SSU	Sustainability and Safeguard Unit
TA	Technical Advisory

Executive Summary GGP2 Results

Background

Indonesia is a founding member of GGGI. Since 2013, GGGI has supported the Government of Indonesia (GoI) under the collaborative Indonesia Green Growth Program (GGP) led by Bappenas, now in its second phase (GGP2, 2016-2020) to accelerate investment in inclusive, green projects, with the goal to help the GoI meet its NDC and SDG commitments.

GGP2 aims to unlock large-scale finance and deliver high-impact green growth with a focus on developing climate-smart and socially inclusive investment projects. The program focuses on accelerating investment, leveraging partnerships, and strengthening institutions to replicate and scale up green growth in support of the Government's development agenda for growth, poverty reduction, job creation and environmental sustainability. GGGI delivers its technical assistance focusing on three priority areas: Renewable Energy, Special Economic Zones (SEZ) and Forest and Land use.

Under the GGP, GGGI supports GoI and stakeholders to mainstream green growth principles in sectoral, district, provincial and national plans, and to design innovative policy instruments, creating an enabling environment that reduces project risks and attracts capital to fund green projects. The support for green projects includes project design, the development of project pipelines and green investment services, and support of national financing vehicles and funding agencies.

GGGI is a partner in the SDG Indonesia One fund and was appointed as the Delivery Partner of the Fiscal Policy Agency to help access and implement funds from the Green Climate Fund (GCF). GGGI also engages with the private sector, such as PT Sarana Multi Infrastruktur (PT SMI) and state-owned enterprises such as PT Perusahaan Listrik Negara (PLN) in joint efforts to accelerate green investments.

GGGI has aligned its work in Indonesia with the government's national and international commitments, including the Nationally Determined Contributions (NDC's) and the Sustainable Development Goals (SDG's). The design of GGP2 was based on extensive dialogue and engagement with national and sub-national level stakeholders to support GoI priorities in line with GGGI's global vision and strategy.

While Indonesia has provided USD15 million from 2016 – 2018 through core funding to support GGGI globally, the GGP2 (2016 – 2020) is funded by multiple donors. In December 2015, the Norwegian Ministry of Foreign Affairs awarded a grant of NOK 170 million for a four-year period to implement the GGP2. In February 2017, the grant was increased to NOK 178 million. Since 2018, GGGI has been appointed by the Fiscal Policy Agency (BKF), Ministry of Finance (MoF), as the GCF Readiness Delivery Partner, receiving ca. USD1.7 million from 2018 – 2021. Other donors include the NDC Partnership and Sweden since 2019.

Through the NDC Partnership project (ca. USD0.5 million funding), GGGI assists the Ministry of Environment and Forestry (MoEF) in organizing national and subnational consultations to create awareness and socialize the updated NDC among stakeholders that have key roles in implementing the NDC. The project complements activities for the NDC Roadmap under the GGP2 and it anticipated to run until July 2021.

Sweden and Norway support the design of sectoral approaches under Article 6. This GGP project has commenced implementation in 2019, supporting Indonesia to engage in international carbon transactions through the design of sectoral approaches under Article 6, i.e. sectoral approaches with a carbon price component that enables Indonesia to undertake sectoral-level emission reductions.

GGP Phase 2 (2016-2020) and the Country Planning Framework (2016 – 2020)

This report will present the results of GGP Phase 2 along the results framework of the five-year Country Planning Framework (CPF) for the same period (2016 – 2020). Under the GGP, GGGI and the GoI jointly work to achieve national development targets adopted in the CPF. The CPF provides strategic direction for the GGP through the formulation of a results framework, or impact pathway. It guides all in-country programming and the design of new projects during the five-year implementation period. In Indonesia, GGP Phase 2 (2016-2020) was the first phase of the program to be guided by a CPF.

Figure 1: Results framework of the CPF (2016-2020) at impact and outcomes level

Impact	Indonesia achieves green growth that is socially inclusive, environmentally sustainable and resource efficient	
Indicators	<ul style="list-style-type: none"> - Renewable energy share in 2015 (%); - Area of intact forest in 2015 (ha); - Social Progress Index (SPI) in 2015; - Land-based GHG emissions projected to rise (%). 	
Outcome	1. Capable institutions scale up green growth	2. Increased inclusive green investment in priority sectors leads to reduced emissions and healthier, more productive ecosystems
Indicators	<p>At least 70% of participants exposed to green growth tools, knowledge products and South-South Initiatives have experienced improvement in green growth related learning;</p> <p>At least 30,000 civil servants received green growth training by the Government of Indonesia's civil service training institute.</p>	<p>Reduced or avoided 400 million tonnes of CO2 emission in forested landscapes (non peat) and 200 million tonnes of CO2 emission on peat landscapes across one million hectares;</p> <p>Up to 100MW of clean energy and improved sustainable infrastructure in selected special economic zones contributing to at least 2 million tonnes of CO2 emission reduction a year;</p> <p>At least 275 million dollars of investment leveraged through demonstrations of commercially viable business models in rural and industrial areas benefiting at least 2 million people.</p>



Support activities for green growth policy planning, enabling, and to drive investment in green projects in energy, special economic zones and forest and land-based mitigation



Energy



Special Economic Zones



Forest and Land-based Mitigation

Summary of Results

This chapter summarizes the results achieved during the GGP Phase 2 (2016 – 2020). It's reporting structure follows the GGP2 results framework, presenting results on capacity development and inclusive green investments in the categories energy, special economic zones and forestry and land use.

In GGP Phase 2, GGGI supported the Low-Carbon Development Initiative (LCDI), forestry and energy background studies for the RPJMN (2020 – 2024), the NDC roadmap, leadership training for government officials, capacity-building of Forest Management Units (FMUs), project feasibility studies for PT. SMI, and a pipeline of project proposals for the Green Climate Fund and other investors. Altogether, GGGI assisted in preparing more than 50 policies, plans and regulations and in mobilizing the commitment of more than USD 220 million in results-based payments from the FCPF Carbon Fund, the Green Climate Fund and others.

As a consequence of GGGI's contributions over the course of the Green Growth Program, Indonesia's green project pipelines have significantly increased in size, with notable improvements in the quality of the proposed projects and in the capacity of PT. SMI as an investment channel and of the National Designated Authority (NDA) for GCF within the Ministry of Finance. Expanding green investment opportunities is key to increasing Indonesia's access to climate finance and private capital and, thus, to Indonesia's efforts to meet its climate and development commitments.

Outcome 1: Capable institutions scale up green growth

The awareness and capacity development activities of Phase 2 (2016-2020) aimed to build capable institutions to scale up green growth, focusing on two main targets. First, to **increase awareness and engagement on green growth** through communication and campaign activities as well as knowledge sharing. The second target was to **improve civil servants' green growth know-how and knowledge uptake** through trainings and other technical and soft skills capacity building activities.

A strong sense of ownership and buy-in from key government partners in the awareness and capacity development activities resulted in enhanced capacity and internalized knowledge by government partners as well as their leadership and involvement in all activities.

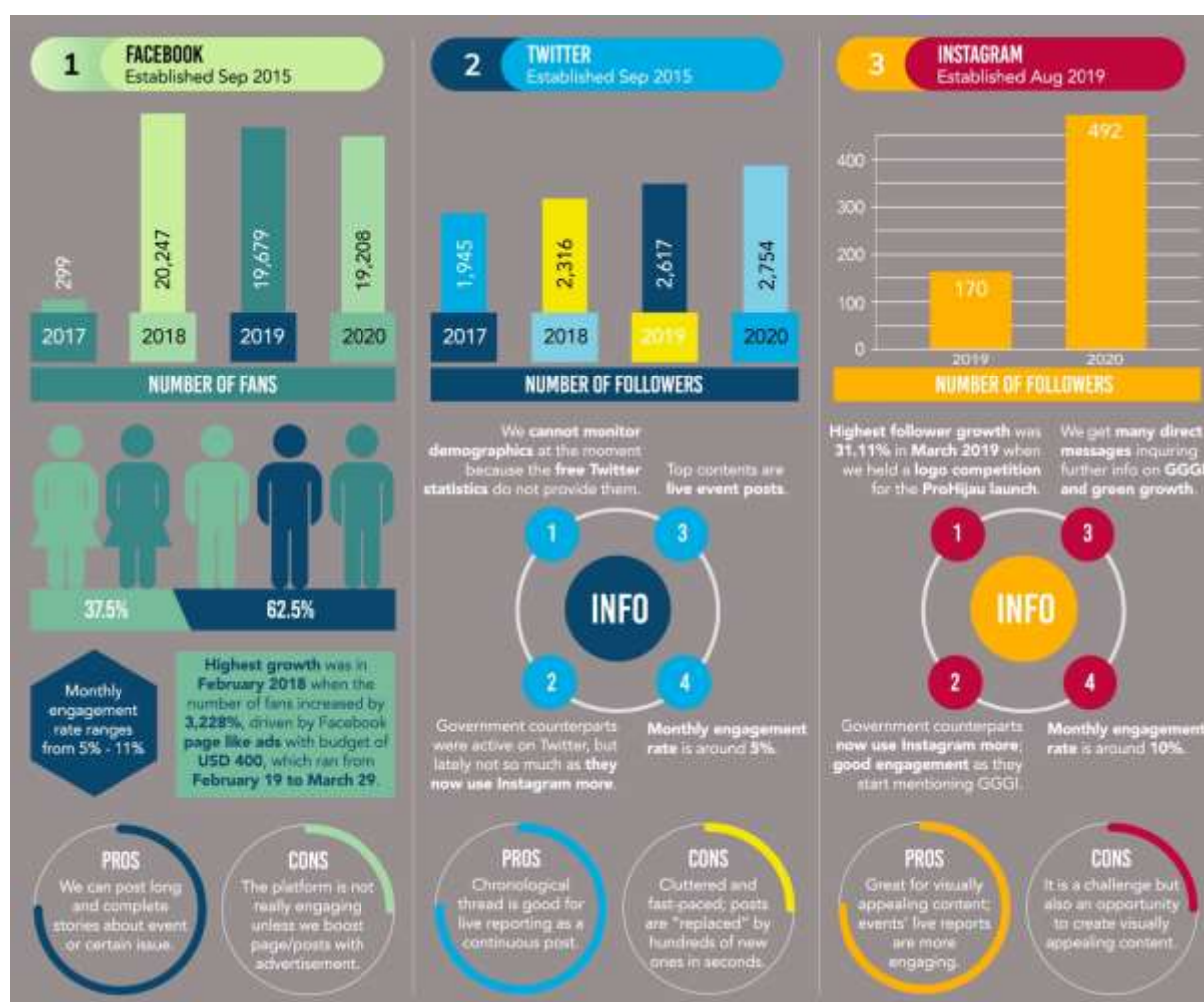
1. Increased awareness and engagement on green growth

Overall, key government counterparts acknowledge and appreciate the progress made to increase awareness by regularly and consistently executing well-planned digital activities, integrating communications into the delivery of targeted events, and tailoring and disseminating various outreach products to promote reports, lessons learned and milestones. Their increased trust in GGGI has translated into communication-specific support requests including strengthening communication channels such as websites and social media and enhancing skills for designing, developing, and producing communication materials as well as for media engagement. Support was also requested for the development of a public awareness campaign strategy to promote the Nationally Determined Contribution (NDC). These requests will certainly serve as some of the baselines to help define and determine the direction and objectives of communications work in GGP Phase III.

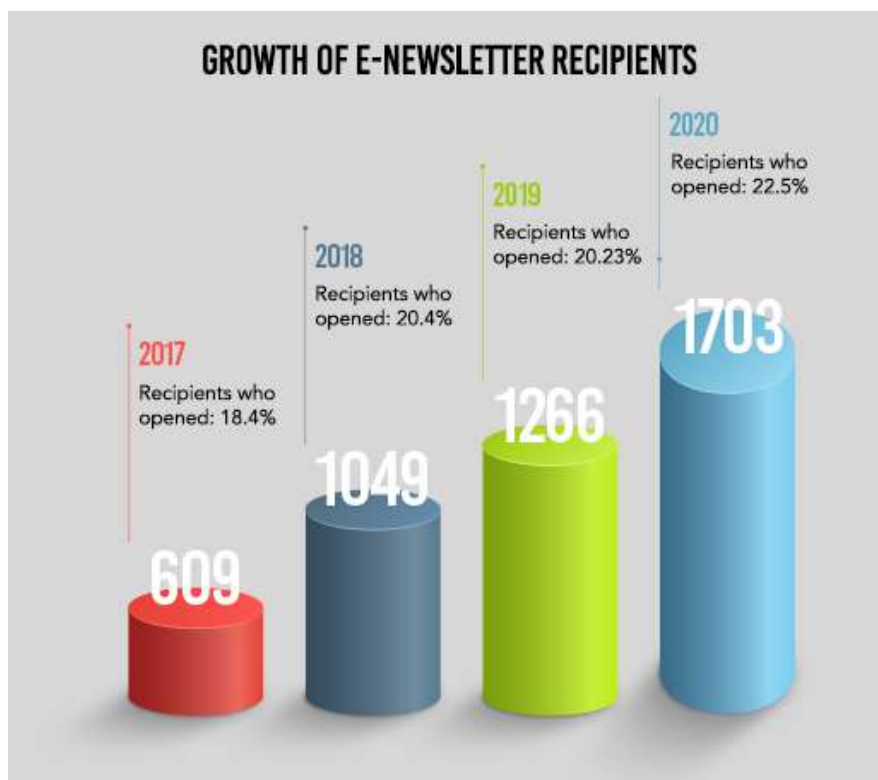
At the beginning of GGP Phase 2, GGGI and government counterparts began to create an environment to expose its key target audience and other stakeholders to green growth content through communication services and digital experiences. Main activities included the establishment of a joint GoI-GGGI Green Growth Program microsite hosted by Bappenas as a web platform to house and disseminate green growth content, the creation of GGGI Indonesia Twitter account and Facebook page in 2015, and Instagram account in 2019, and the Phase II launch by the Minister of Bappenas, GGGI Director General, and the Ambassador of Norway to Indonesia.

These efforts to raise awareness and build knowledge of green growth centered around the digital platforms as a powerful tool in creating more positive engagement from the target audience, namely government counterparts, donor and financiers, the private sector, as well as the mass media.

Establishing a consistent social media presence has played a key role in raising awareness and connect to government counterparts and other stakeholders, who are increasingly active on Instagram and Twitter. By the end of GGP Phase 2, the GGP's regular content creation and tri-weekly posts on GGGI Indonesia social media channels had enjoyed increased engagement, positive conversation and improved trust from target audience, making it easier to build direct relationship with them offline.



The GGP microsite combined with the quarterly e-newsletter are the most effective platforms to raise awareness as well as to inform target audience of activities, products, milestones and lessons learned. The e-newsletter is constantly growing in terms of the number of recipients and open rate, resulting in invitations to events and activities and requests for expert speakers, as well as demonstrating increased interest and trust (see figure below).



Note on 2020: The 2020 figures above only reflect two distributed issues of the e-news letter. The 3rd issue will be distributed in late November 2020 and the last issue in mid-December 2020. It is thus likely that the number of recipients who opened the e-news letter will further increase.

Increased coverage of Green Growth in mass media with more than 100 publications in 2019. The GGP had also enjoyed increased exposure and coverage on mass media every year throughout Phase II, starting 31 media stories published in 2017 to 104 media stories in 2019. The final year of Phase 2, which is year 2020, was affected by the COVID-19 pandemic, resulting in decreased number of activities and events. Furthermore, the pandemic and its impacts understandably have been the main attention of the media. However, through the GGP 40 green growth themed media stories were published in various media from January to October 2020.



Over 250 outreach products supported GoI in promoting green growth throughout GGP Phase2.

Main highlights include three communication briefs in 2017, the renovated GoI-GGGI Green Growth Program microsite as well as the seamless integration of communications work into a Bappenas-hosted parallel event held at the IMF-World Bank Annual Meeting in 2018 to launch the much-awaited Low Carbon Development Initiative (LCDI) in Indonesia. Moreover, the green growth video series was published at the end of 2019 featuring Minister of Bappenas, Director General of Climate Change of the Ministry of Environment and Forestry, Director of Bioenergy of the Ministry of Energy and Mineral Resources, Head of Fiscal Policy Agency, Head of National Institute of Public Administration, and Deputy for Regional Development and Spatial Planning Coordination of the Coordinating Ministry for Economic Affairs, as well as GGGI Indonesia Country Representative.

2. Improved civil servants' green growth know-how and knowledge uptake

The GoI, through the National Institute of Public Administration or LAN, has developed and carried out green growth trainings for civil servants in policy formulation and implementation. LAN as the strategic partner of GGGI plays a key role in mainstreaming green growth with its mandate to foster the development of civil servants' managerial competence. LAN's mandate is to work across ministries and sectors, making it a key institution to scale up green growth as it allows the Green Growth training to be adopted by all civil servants beyond the key institutions responsible for NDC and environmental issues.

The first official green growth training in Indonesia was adopted by LAN

The Green Growth Trainings, or Pro Hijau, was formalized through the Decree of the Head of LAN No. 704/K.1/HKM.02.2/2019 concerning Guidelines for Implementing Green Growth Training which comprises three types of trainings for higher level echelon, mid-level echelons, and administrative levels. The uniqueness of Pro Hijau as an integrated module in an official bureaucratic curriculum makes it the first official green growth training in Indonesia. Pro Hijau was launched virtually by Head of LAN and Vice Minister of MoEF in July 2020 **attracting over 4,000 viewers nationwide**. High level panel consisting of Mayor of Surabaya, Regent of Tabanan, Chair of Kemitraan, and LAN Deputy talked about the urgency and applications of green growth in their respective areas and concluded the need for Indonesia to swiftly and massively transition to green growth approaches.

With GGGI's support, LAN has successfully developed 15 training modules and has conducted training and knowledge sharing sessions reaching over 3,000 participants. Trainings organized include green growth sessions at government's formal National Leadership Trainings, empathetical leadership trainings to strongly relate social inclusiveness in green growth, South-South knowledge exchanges with Mexico and Colombia, and Pro Hijau micro learning sessions in the form of webinar series based on the modules and linking them to current issues. The series is established to respond to the dynamics from the Covid-19 pandemic and the need to widely develop competencies on green growth and to make green growth relevant to emerging development issues.



Building LAN's internal capacities and capacities of government trainers (*widyaiswara*) from several other institutions, GGGI also organized series of Training of Trainers (TOT) to allow them to facilitate classical (face to face) as well as online Pro Hijau training. TOTs were designed and organized in various learning methods such as experiential learning, seminar and action-learning, field study, bootcamp to develop teaching materials, and development of Teacher's Module for the Pro Hijau Training.

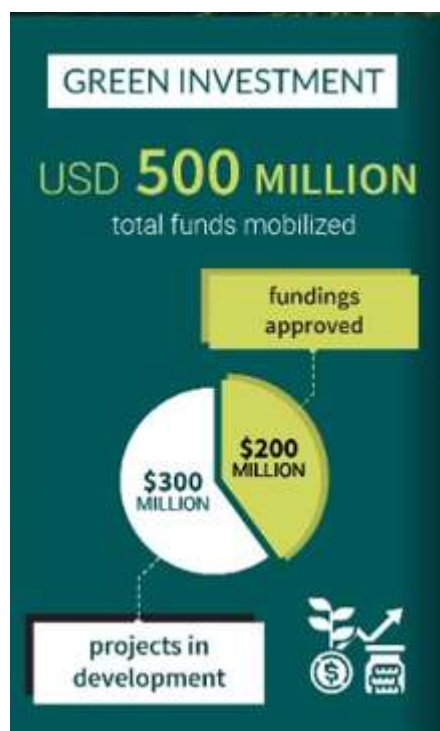
Over 90% of trainees reported increased knowledge, improved skills and confidence, and applied the knowledge and the skills in their jobs.

Training evaluation showed a mean score of 4.5 out of 5, indicating that respondents strongly agreed that the trainings were useful and that they gained new knowledge. Post training evaluation for level 3 (behavior) reported that over 90% of respondents changed their attitude and behaviour, apply the knowledge and the skills in their jobs and activities, and made contribution to their institutions. In average, evaluations from the TOT programs showed that 93% of respondents have increased knowledge, improved skills and confidence, apply knowledge to their work, and further adopt their learning by independently organize trainings on green growth issues in their respective institutions.

To reach all 4.3 million civil servants in Indonesia, LAN launched ASN Unggul as an online training or e-learning platform in August 2020 which will also host Pro Hijau Training and will be increasingly relevant amid the COVID-19 pandemic. The Pro Hijau e-learning will be the first self-paced full e-learning program in LAN that will be accessible to all civil servants in a demand-driven system. GGGI provided capacity building and technical assistance to LAN in developing e-learning in the ASN Unggul platform. It is expected that by end of 2020, Pro Hijau e-learning will be ready for full scale roll out, thus, sustaining the training for years to come within LAN itself.

Outcome 2. Increased inclusive green investment in priority sectors leads to reduced emissions and healthier, more productive ecosystems

GGGI has provided support for a range of strategic government initiatives that aim to improve the investment environment in Indonesia, which helped to mobilize more than USD 220 million and to establish a project pipeline of more than USD 300 million.



GGGI helped mobilize investments of more than USD 220 million, especially for national and jurisdictional REDD+ results-based payments programs

East Kalimantan’s Jurisdictional Emission Reduction Program (ERPD) was approved mobilizing USD 110 million result-based payments through the Forest Carbon Partnership Facility-Carbon Fund (FCPF-CF). The ERPD for 2020-2024 is the first sub-national, jurisdictional REDD+ program in Indonesia. It will provide incentive for reducing GHG emissions by 86.3 MtonCO₂e, which is equivalent to a 25% reduction in the province’s reference level emissions over that period, and for protecting one of the world’s largest and most biodiverse tropical rainforests.

GGGI also supported the **Green Climate Fund (GCF) proposal “Indonesia REDD-plus RBPs for results period 2014-2017”**, mobilizing USD 103.8 million in Results Based Payments (RBPs) for Indonesia.

Since Emission Reduction program development at the provincial jurisdictional level is new in Indonesia, MoEF1 has requested GGGI use the experience gained in supporting the FCPF ERPD and the GCF funding proposal to replicate similar programs in for other provincial and national initiatives. At the end of Phase 2, GGGI actively supported MoEF in designing three REDD+ projects in Indonesia:

- a. East Kalimantan Jurisdictional Emission Reduction Program (EK-JERP) through the Carbon Fund.
- b. Initiative for Sustainable Forest Landscapes (ISFL) through the BioCarbon Fund
- c. Indonesia REDD+ Result-Based Payments for results period 2014-2016 from the GCF.

In total, these three initiatives could eventually facilitate an investment pipeline of USD 297.3 million.



Forest and Land-based Mitigation

GGGI has also contributed to developing a strong pipeline of projects seeking to raise hundreds of millions of USD. This includes for forestry and land use, for example, working in Sebangau national park landscape to carry out pre-feasibility assessments for designing the landscape project with three primary implementing stakeholders – Sebangau national park management unit, forest management unit (KPH Katingan-Mentaya) and nearby communities. The target size for the project is USD 10 million. Moreover, projects with private sector financiers like Tropical Landscape Finance Facility (TLFF) and Lestari Capital (LC) currently under development are the sustainable coconut sugar production with Tropical Landscape Finance Facility (target investment size USD 10 million) and the forest conservation and restoration projects with Lestari Capital (target investment size USD 15 million).



Special Economic Zones

GGGI conducted pre-feasibility studies in SEZ Sei Mangkei and SEZ Bitung to identify green infrastructure investment opportunities. Two projects from the ECBA study of SEZ Sei Mangkei in 2017 were selected to be developed into business models. First, we proposed a business model that would allow the main tenant in the SEZ, Unilever to install a Solar Rooftop PV Plant on their rooftop. As a second follow-up to the eCBA study in Sei Mangkei and in consultation with Coordinating Ministry of Economic Affairs (CEMA) and the National Council for Special Economic Zones (NCSEZ), GGGI committed to support the feasibility and market study for a Hazardous Waste Management Plant (HWTP) in North Sumatera. While both studies demonstrated the viability of the business models, investors were not willing to fund further project development.



Energy

- GGGI has supported the development of bankable projects and business plans, demonstrating financial viability and economic benefits of renewable energy projects including:
- Pre-feasibility studies of 8 small-scale fuel switch projects (hybrid diesel-Solar PV solutions) for several islands in East Nusa Tenggara
 - The design of a portfolio of renewable energy projects with a value of USD 4.425.000 for the Provincial Government of Sumba, submitted to the special allocation fund (APBN).
 - Development of a pipeline of bankable Renewable Energy projects for PT SMI and the SDG Indonesia One Fund:
 - a) Bio-CNG in Central and East Kalimantan based on agri-waste from mainly the palm oil sector
 - b) Biomass to Energy in Ponu (NTT),
 - c) Waste to Energy, in Luwuk, Central Sulawesi,
 - d) Hydrogen storage based Solar PV in NTT, and
 - e) eUpscaling of hybrid Solar-PV-diesel solutions, in NTT, Wind Power in Timor island.

Green Climate Fund (GCF) Readiness Program

The Green Climate Fund Readiness and Preparatory Support Program (GCF RPSP or “Readiness project”) is the funding window provided by the GCF to encourage country-driven initiatives by supporting countries to strengthen institutional capacities, governance mechanisms, planning and programming frameworks towards a transformational long-term climate action agenda. As the National Designated Authority (NDA) GCF Indonesia, the Fiscal Policy Agency (FPA, or BKF) at Ministry

of Finance (MoF) has implemented their first Readiness ("Readiness I") program from June 28th, 2018, with GGGI as the delivery partner.

A project pipeline of USD 250 million in potential funding was established

The first public Call for GCF project concept notes in 2019 served as the main milestone for GGGI to provide support to project development to BKF/MoF as the focal point of the GCF in Indonesia, resulting in a total of 167 project concept notes submitted to BKF. 47 concept notes were shortlisted and received technical assistance to improve their quality. One concept note has received green light to proceed to funding proposal development, and nine concept notes are in preparation with total project value more than USD 250 million.

Improved enabling environment has strongly increased Indonesia engagement with the GCF and capacity to raise climate finance.

- The NDA has supported 3 funding proposals, 1 Project Preparatory Facility (PPF), and 2 Readiness proposals to get approved by the GCF Board, **aiming to mobilize more than USD 300 million of climate finance.**
- The updated GCF Country Program Document (CPD) has provided clear thematic priority sectors according to national development plans, policies, and regulations. The updated document has been launched along with the [NDA GCF Indonesia official website](#).
- Support has been provided to PT SMI and, although limited to indirect support, to Kemitraan as the only two approved GCF national Direct Access Entity (DAE) in Indonesia. Support for PT SMI focused on accessing GCF funding, such as developing their project pipeline and the GCF financing management procedures. To diversify its DAE, the NDA has also conducted a Call for Expression of Interest (EOI) to be DAE in 2019, which resulted in three newly nominated DAE candidates, namely KEHATI, Penabulu, and Bank Artha Graha Internasional.

Under GGP 2 (2016-2020), GoI and GGGI have also cooperated to support strategies, policies and plans to enable green investments. The main results achieved in Phase 2 are highlighted below.

Forestry and Land use

In the forestry and land use sector, Phase 2 built on the Program's work with the REDD+ Agency in Phase I (2013 - 2015 and aimed to: (a) provide targeted technical support to a range of key GoI stakeholders involved in the country's REDD+ initiative, and (b) enable investment to flow to well-designed sub-national REDD+ programs.

GGGI was involved in 51 policy initiatives for the design of emission reduction programs and forest management unit development, of which 43 were adopted as government regulations, both at national and subnational level. Three of them have had a major influence on the inclusion of NDC targets in the National Medium-Term Development Plan 2020-2024 and MoEF Strategic Plan 2020-2024, which further strengthen Indonesia's NDC commitment.

GGGI provided technical assistance by synthesizing experience gained from previous policy design into lessons-learned and by applying them to the development of other policies and plans. There are four high-level documents that benefitted from this approach:

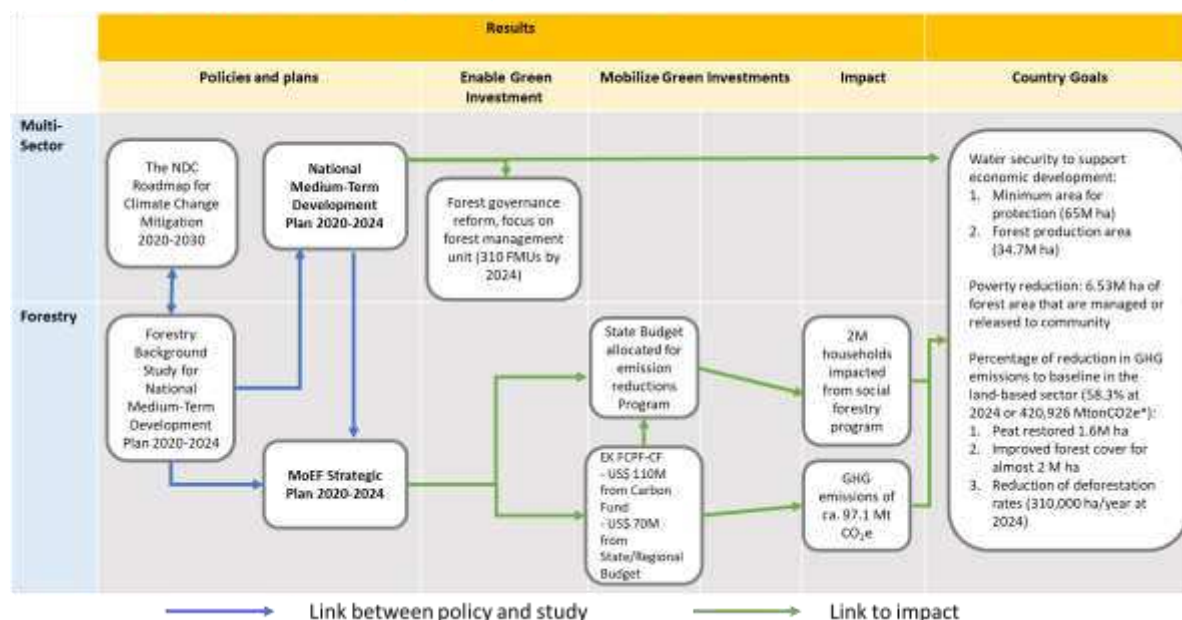
- a. **The Forestry Background Study and Technocratic Design of National Medium-Term Development Plan 2020-2024 (RPJMN 2020 – 2024)**, following a request by Bappenas². The Forestry Background Study emphasized the need to use environmental carrying capacity to

² Directorate of Forestry and Water Resources Conservation (under Deputy of Maritime and Natural Resources)

identify strategic issues in the forestry sector, optimization of the existing forest area and functions, and revitalization of forest management and governance that enables forest management units to effectively manage their areas. GGGI also included key findings from the NDC Roadmap to ensure that the study's main strategies meet the NDC target of the forestry sector. Recommendations from the Forestry Background Study were adopted in the Presidential Regulation No. 18/2020 on National Medium-Term Development Plan 2020-2024.

- b. **Indonesia's Roadmap for the Implementation of NDC Mitigation 2020-2030**, responding to a request by MoEF³. In the forestry sector, full mitigation potential was considered by effectively improving forest management unit roles as recommended by the Forestry Background Study.
- c. The **MoEF Strategic Plan 2020-2024**, following a request by MoEF⁴. GGGI provided support to the development of the Rencana Strategis/Renstra KLHK, which describes in detail the Ministry's plan to achieve the targets formulated in the RPJMN 2020-2024. GGGI helped to integrate the recommendations from the Forestry Background Study in the MoEF Strategic Plan 2020-2024, and thus to turn them into policies (enacted through MoEF Regulation No. 16/2020 on MoEF Strategic Plan 2020-2024).

Impact pathway of Forestry Background Study



- d. The Coordinating Ministry for Maritime and Investments Affairs invited GGGI to provide insights that inform the preparation of Presidential Regulation on Carbon Economy Value, the NDC Roadmap as a guidance document, the creation of a carbon market, private sector obligation to limit GHG emissions, carbon rights and its transfer mechanism, implications of legal arrangements for various carbon pricing instrument options, and challenges and opportunities of using Law No 32/2009 on Environmental Protection as the legal basis for both regulations. Based on GGGI's inputs, the government decided to: (a) use the NDC Roadmap as guidance, (b) classify FCPF Carbon Fund and BioCarbon Fund programs in the carbon trading mechanism, (c) accelerate the development of a carbon market, (d) and that Carbon Rights should be regulated.
- e. **Medium-Term Provincial Development Plan 2019-2023 in East Kalimantan.** GGGI was

3 Directorate of Climate Change Mitigation (under Directorate General of Climate Change)

4 MoEF Planning Bureau (under MoEF Secretary General)

requested by the EK provincial government to provide technical assistance for the technocratic document and initial draft of the EK RPJMD 2019-2023. The technical assistance was centered around ensuring a more diversified income base that is not depending on coal, and the inclusion of climate change and resilience. The RPJMD was approved in April 2019 and enacted under the East Kalimantan Provincial Regulation No. 1/2019.

- f. **Strategic Plan 2019-2023 for eight Sectoral Agencies in East Kalimantan.** GGGI assisted eight sectoral agencies to adopt the vision and mission of the new EK governor and integrate the FCPF emission reductions program into their strategic plans, namely the agencies responsible for forestry, environment, plantation, fishery, energy and mineral resources, culture and tourism, small- and medium-sized enterprises, and provincial revenue. These agencies were selected by the provincial government as critically important for the implementation of the FCPF emission reductions program. The strategic sectoral plans were finalized and approved in April 2019 and stipulated under Governor Regulation No. 24/2019.
- g. **Medium-Term District Development Plan 2019-2023 in five districts on Central Kalimantan.** In 2018, GGGI provided support to five district governments in CK to develop initial drafts of their RPJMD 2019-2023. In 2019, the final draft RPJMDs were completed and submitted to the districts' Bappeda for Murung Raya, Kapuas, Pulang Pisau, Katingan and Lamandau. The RPJMDs were issued on 22nd of March 2019 by the District Governments.
- h. **Draft of Provincial Peat Ecosystem Protection and Management Plan (RPPEG) for Central Kalimantan.** As requested by MoEF and the provincial government of Central Kalimantan, GGGI supported the development of the provincial Peat Ecosystem Protection and Management Plan (RPPEG) in close cooperation with MoEF, the National Peat Restoration Agency (BRG), Provincial Working Group for RPPEG development, and Palangka Raya University.
- i. **Policy briefs following up on forestry background study recommendations**

Bappenas' Directorate of Forestry and Water Resources Conservation has requested GGGI to develop policy briefs for policy makers to highlight the key findings of the Forestry Background Study and provide technical advice on options and solutions to take these to a stage of implementation. Topics included:

- 1) FMUs (forest management units): *Direction Towards Autonomous FMU in Indonesia*
- 2) Environment Carrying Capacity: *Carrying Capacity and Environmental Capability in Forest Management and Development Scenarios towards Indonesia 2045*
- 3) Peatlands: *Achieving Low Carbon Development and Sustainable Development Goals on Peat in Indonesia.*

Special Economic Zones

GGGI collaborated with the Coordinating Ministry of Economic Affairs (CEMA) and the National Council for Special Economic Zones (NCSEZ) to promote the development of Green SEZs. The Green SEZ program achieved three main outcomes in Phase 2. First, Green SEZ Guidelines were designed to support the government with a policy framework to incentivize SEZs to attract green investment. Second, several knowledge products and pre-feasibility studies were conducted to showcase green policy interventions and de-risking strategies for projects in SEZs. Third, green infrastructure projects in several special economic zones (SEZ) were designed and demonstrated to be financially feasible.

Overall, the Green SEZ activities have been effective in mainstreaming the green growth thinking and policy approaches into SEZ planning processes. This has been evidenced by the **inclusion of the Green**

SEZ Program in the SEZ Annual Report 2019 issued by CMEA and by the **endorsement by NCSEZ of the Green SEZ Guidelines** as a technical input to formulate a regulation on SEZ Estate Guidelines which is due to be issued in 2021. The finalization of the guidelines was preceded by a regulatory review process that involved the inter-ministerial SEZ technical implementation team consisting of government staff at Echelon 1 and 2 levels. Moreover, the completion of several knowledge products such as the *Green SEZ Handbook*; an updated *ECBA Handbook*, the report on *Fiscal and Financial Incentives for Green Infrastructure Projects in SEZs* in Indonesia and an international conference on Green SEZs held in Jakarta are outputs that have been well received by the government and were vital in shaping the development of the Green SEZ Guidelines.

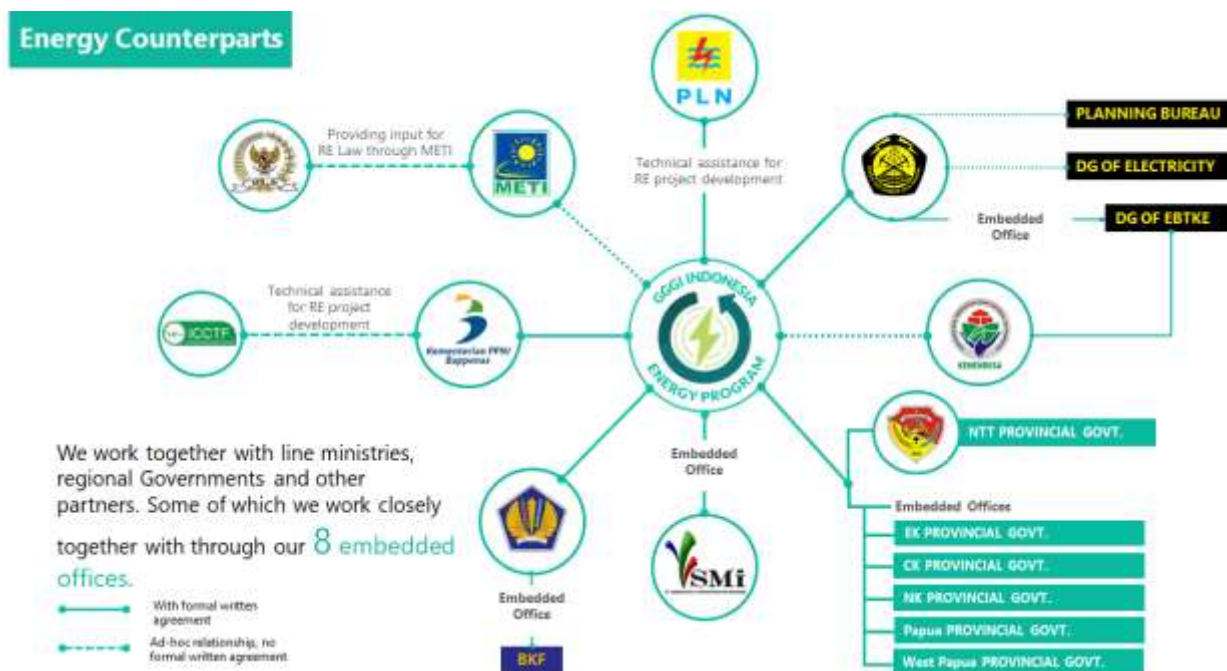
The development of green infrastructure projects has been less effective, as the pre-feasibility and market studies in SEZ Sei Mangkei and SEZ Bitung to identify green infrastructure investment opportunities have not yet resulted in specific green projects. While GGGI support successfully demonstrated the economic and financial feasibility of the projects and policy interventions in the pre-feasibility studies, investors have not yet committed to funding further project development.

Using the ECBA methodology, GGGI identified green growth policy interventions and associated project opportunities with potential net economic benefits of USD 870 Million in net present value terms for Sei Mangkei and USD 2.2 Billion for SEZ Bitung. In addition, a Study on *Assessing the Economic and Financial Incentives Framework to Accelerate Green Infrastructure Projects in Special Economic Zones in Indonesia* produced a set of policy recommendations to design fiscal and financial incentives tailored to SEZ-specific needs.

Overall, these studies informed policy makers on ways of how to enable a better policy environment for green investment in SEZs. They have been well received by provincial and national stakeholders. The SEZ Bitung study has been highlighted in the SEZ Annual Report 2019 of CMEA.

Renewable Energy

GGGI's support for renewable energy builds on a strong network of government and private sector partners. Technical engagement is led by the Ministry of Energy and Mineral Resources (MeMR). GGGI has embedded offices in BKF, PT SMI and MEMR, and in the BAPPEDAs in five provinces. GGGI also collaborates closely with the state-owned power utility Perusahaan Listrik Negara (PLN) under an MoU to develop clean energy projects in East Nusa Tenggara ("NTT") and a Non-Disclosure Agreement.



GGI has provided significant support to key energy policy processes and plans at the national and provincial levels, ensuring the mainstreaming of green growth principles and contributing to achieving 23% RE in the energy mix.

- East Kalimantan General Planning for Regional Energy (EK RUED)
- Central Kalimantan General Planning for Regional Energy (CK RUED)
- Energy Sector NDC Review, finalized in December 2018 with further policy changes and strategy adjustments expected in 2019
- Implementation of the Energy Sector Background Study for the National Medium-Term Development Plan (RPJMN)
- Development of pipelines of renewable energy projects for investment, including for the Green Climate Fund (GCF), SDG Indonesia One Fund, PT SMI, ESDM (EBTKE) and Bappenas.
- A national impact study of off-grid renewable energy installations, to provide a basis for policy review and development for accelerating off-grid energy supply, in order to enhance access to electricity for remote villages.

Moreover, GGI conducted a preliminary **evaluation of a 2.2MW community-based biomass power plant in Ponu, NTT**, to support Gol in identifying social forestry-based bioenergy solutions and business models. Using 1300 ha to supply 40,000 ton of bamboo, the Ponu power station will produce annually 2.2 MW electricity and generate income for communities of USD 1.14 million for a total investment of USD 6.6 million. The project encouraged Gol to set a national target of 500 MW sustainable biomass-based energy, which holds significant opportunity for restoration of degraded land areas, including ex-mining sites, and enable reduced emissions from power generation and enhance carbon sequestration in the landscape.

GGI also provided technical assistance to MEMR to evaluate how **an emissions cap for fossil fuel** power plants can be used to help Indonesia achieve its NDC targets, drawing also conclusions about the possible setting and level of emissions caps. These results were discussed with the key stakeholders. They jointly developed an approach to setting emission caps on a voluntary basis from 2020-2024 with a compulsory cap and a trading mechanism to be established thereafter.

Support across sectors

Strategic Environmental Assessments (SEAs) for RPJMN 2020-2024

In Phase 2, the DG of Environmental Impact Prevention for Regional and Sectoral Policies (PDLKWS) of the Ministry of Environment and Forestry (KLHK) requested support from GGGI to support capacity-building and implementation of the Strategic Environmental Assessment (SEA) processes. The SEA is the main mandatory environmental policy instrument at the government's disposal to ensure environmental and social safeguard of major programs. MoEF expects to complete the review of the SEA Guidelines by end of 2020.

At the request of FMU Balikpapan and in consultation with PDKLWS, GGGI conducted a *Baseline Study to assess the use of economic instruments and incentives schemes for FMU Balikpapan in Sungai Manggar watershed*. The study provides the foundation to develop a payment for ecosystem services (PES) in GGP Phase 3.

Key outputs:

- Technical support to KLHK to develop national SEA Guidelines which includes the ECBA as one recommended analytical tool (2019-20)
- GGGI supported MoEF and regional governments of CK and EK in implementing Strategic Environmental Assessments (SEAs) for their Medium-Term Development Plan RPJMN 2020-2024.
- ECBA training sessions were integrated in official SEA training courses organized by MoEF (2019)
- Social and hydrological baseline study to support the design of a PES scheme for Balikpapan and Manggar watershed in protected forest area of Bongan, East Kalimantan (2020)

NDC Roadmap

One significant GGGI's support under GGP Phase II for the government's low emission development commitment is to facilitate the establishment of a multi-sectoral NDC roadmap 2020-2030, called *Peta Jalan NDC Mitigasi*. The summary was launched in October 2019 by the Minister of Environment and Forestry. The Roadmap encompasses the national emissions reduction targets by sectors and sub-sectors,, biannual targets (i.e. two-year periods), the strategy to achieve the targets and enabling conditions from each key sectors, including monitoring and reporting, and a funding strategy.

GGGI has also supported MoEF in mainstreaming the recommendations of the Roadmap into the other planning and policy documents to ensure a streamline effort to reduce emissions, including:

1. Forestry Background Study for National Medium-Term Development Plan 2020-2024
2. MoEF Strategic Plan 2020-2024
3. Draft Presidential Regulation on Carbon Economy Value (on-going process).
4. Roadmap for the development of new and renewable energy power plants (on-going).
5. Strategic Plan Book 2020-2024 of the Directorate General of New, Renewable Energy and Energy Conservation, Ministry of Energy and Mineral Resources (on going process to become Ministerial Regulation).
6. Strategic Plan Ministry of Industry, which already incorporate green industry target (on-going process).

Through the Climate Action Enhancement Package (CAEP) project funded by the NDC Partnership, has also assisted the socialization the NDC Roadmap and NDC Update both for adaptation and mitigation. The continuous dialogues between key ministries were used to enable them to align their programs in meeting the overall target of NDC and incorporate the programs into their sectoral plans. Three national

consultations were held and participated by 14 NDC related ministries and agencies. These consultations reached out to more than 700 people who actively provided updates on the NDC implementation strategy and the current efforts.



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