Ministry of Foreign Affairs – Department for Green Diplomacy and Climate

Meeting in the Council for Development Policy on 27.01.2022

Agenda Item No. 4

1. Overall purpose:	For discussion and recommendation for the Minister
2. Title:	Enhanced Engagement under the Indonesia-Danish Energy Partnership (INDODEPP)
3. Presentation for Programme Committee:	04.10.2021
4. Previous Danish support to DEPP 3 presented to UPR	UPR meeting 28-10-2020 recommended contribution of DKK 60 million to the Indonesia-Danish Energy Partnership (INDODEPP)

Enhanced engagement of Energy Partnership Project (INDODEPP) 2022-25

Key results:

- Low carbon development in provinces is accelerated leading to more renewable energy projects and contributing to higher local energy and climate targets.
- The demonstration effect of local showcases for green transition paves the way for more renewable energy at national level supporting just transition, affordability of energy and socio-economic benefits.

Justification for support:

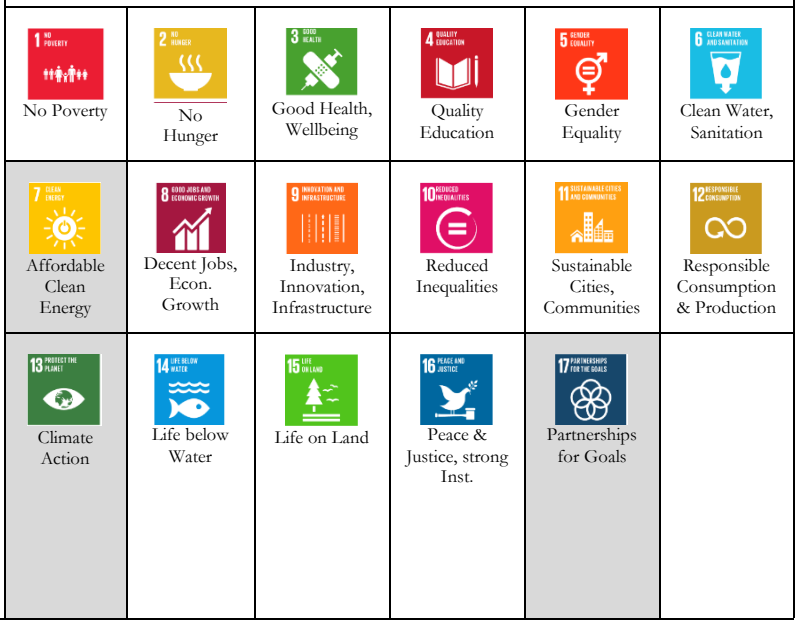
- The project supports the climate priorities in the Danish Development Strategy "the World We Share" and contributes to the de-carbonisation commitment of COP 26.
- The National Energy Council (NEC) of Indonesia, has requested the Danish Energy Agency to support regional efforts of formulating energy plans in support of low carbon development.
- The enhancement of INDODEPP is proposed in order to deepen and expand the existing Sustainable Island Initiative and link pipeline green energy projects in the participating provinces to concrete investments in green transition and increase the prospects of CO2 reductions.
- The project will support the Danish Climate Diplomacy in Indonesia.

Major risks and challenges:

- Covid-19 restrictions have affected and still affect the overall implementation of INDODEPP. The risk for e.g. cancellation of workshops, consultations and meetings are mediated by flexibility in design of the project activities.
- The political risk of prioritizing national resources such as coal, gas and palm oil instead of renewable energy technologies persist. At regional level the risk is mitigated by the economic incentive of local authorities to pursue investments in a price competitive renewable energy production. The risk is considered medium.

File No.	2020-34198					
Country	Indonesia					
Responsible Unit	Green Diplomacy and Climate					
Sector	23110 – Energy policy and Administrative Management					
Partner	Danish Ministry of Climate, Energy and Utilities/Danish Energy Agency					
DKK million	**2022**	**2023**	**2024**	**2025**		**Total**
Commitment	15					
Projected disbursement	1,6	4,5	4,3	4,6		15
Duration	2022-2025					
Previous grants	INDODEPP 2020 DDK 60 mill.					
Finance Act code	06.34.01.70 Climate Envelope					
Head of unit	Karin Poulsen					
Desk officer	Lone Bøge Jensen					
Reviewed by CFO	Rasmus Tvorup Ewald					

Relevant SDG's



Strategic objectives

Indonesia is meeting national energy demand in a more sustainable way; reaching national NDC goals by reducing GHG-emissions; fulfil SDG7 and SDG13 targets; and the achievement of the 23% renewable energy goal in 2025

Justification for choice of partner:

Ministry of Energy and Mineral Resources is the main partner of INDODEPP. The secretariat of the National Energy Council of Indonesia under the Ministry is responsible for provincial energy planning. The ministry is the main partner to the project, as they are the key government entrance to the provincial energy planning process and has a mandate to ensure coherence between national and local energy planning.

Summary:

The project addresses the actual gap between national ambitious targets for a green transition in the energy sector, and a significant under-implementation of these targets in provinces. The project will point out to local policy makers how analysis of renewable energy potential and needed supporting measures consolidated in a solid energy planning process can create a cost efficient vision for the green transition at the provincial level. The project may lead to identification of possible pilot and flagship projects of larger scale investments and energy system integration, which local government can pursue in the investment plans for the province.

Budget (in DKK million**):**

Outcome 4 of INDODEPP	11,7
Unallocated	3,3
Total	**15**

List of key abbreviations and selected terminology

ADB	Asian Development Bank
BAPPEDA	Badan Perencana Pembangunan Daerah (Indonesian regional body for planning and development)
BAPPENAS	Ministry of Development Planning of the Government of Indonesia
COP	Conference of the parties (under the UNFCCC)
Danida	Brand name for Danish international development cooperation, under the Ministry of Foreign Affairs of Denmark
DEA	Danish Energy Agency
DGE	Directorate General of Electricity, MEMR
Dinas ESDM	Dinas Energi Sumber Daya dan Mineral (regional offices of ESDM – MEMR in English). Note: for regional entities, the Bahasa acronyms are generally used in this PD.
DKK	Danish Kroner
EE	Energy Efficiency
EU	European Union
GHG	Green House Gas
GOI	Government of Indonesia
INDODEPP	Indonesia-Denmark Energy Partnership Project
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
LTA	Long-term advisor
MCEU	Danish Ministry of Climate, Energy and Utilities
MEMR	Ministry of Energy and Mineral Resources, Government of Indonesia (MEMR is also referred to as ESDM in Bahasa). In this PD, the MEMR acronym for the Ministry is used, in line with common practice in international cooperation.
MFA	Ministry of Foreign Affairs of Denmark
NDC	Nationally Determined Contribution (under the Paris Agreement on Climate Change)
NEC	National Energy Council of Indonesia
NGO	Non-Governmental Organization
NTB	Nusa Tengara Barat-province
OECD	Organisation for Economic Co-operation and Development
PD	Project Document
PLN	PT Perusahaan Listrik Negara (Indonesian State-Owned Electricity Utility)
RDE	Royal Danish Embassy in Indonesia (in some cases also referred to as the Embassy of Denmark (EDK))
SDG	Sustainable Development Goal
SII	Sustainable Island Initiative (SSC)
SSC	Strategic sector cooperation
TA	Technical assistance
TOC	Theory of Change
TOR	Terms of reference
UPR	The Danish Council for Development Policy
VRE	Variable renewable energy (in the Concept Note referred to as fluctuating renewable energy)

Contents

Holistic energy planning for local affordable de-carbonization in Indonesia

1. Introduction

The present project document outlines the background, rationale and justification, objectives and management arrangement for development cooperation concerning an enhanced engagement under the existing Indonesia-Denmark Energy Partnership project 2020-2025 (INDODEPP) as agreed between the Ministry of Climate, Energy and Utilities of Denmark (MCEU) and the Ministry of Foreign Affairs. INDODEPP was approved in November 2020 with a total budget of 60 million DKK. The project contributes to the strategic objective of INDODEPP, which is: "*Indonesia is meeting national energy demand in a more sustainable way; reaching national NDC goals by reducing GHG-emissions; fulfilling SDG7 and SDG13 targets; and achieving the 23% renewable energy goal in 2025".*

The IPCC Sixth Assessment report is very clear in its statements. Human-induced climate change is affecting weather and climate extremes in every region across the globe. The recent COP26 in Glasgow reached a final agreement which keeps the world within reach of the 1.5 degrees target and stipulates a phase down of coal and phase out of fossil fuel subsidies. However, COP26 also emphasized a critical need for countries to accelerate the green transition and to deliver more ambitious mitigation targets in order to reach the Paris Agreement. The Danish Climate Act is a direct response to the global climate crises and Denmark's new strategy for development cooperation "The World We Share" has a dedicated focus on climate change. It describes how enhanced efforts on climate change mitigation will be delivered by "*strengthen the Danish SDG7 leadership and energy cooperation on green transition in developing countries, including promoting renewable energy and energy efficiency. This applies particularly to growth economies with high emission levels".* The Danish government has in the financial act for 2022 *walked the talk* by increasing the Development Cooperation budget for the Climate Envelope.

In 2015, Indonesia and Denmark signed a Memorandum of Understanding concerning bilateral cooperation focusing on renewable and clean energy and energy conservation. The agreement was updated and renewed in November 2020. The government-to-government cooperation on energy supports the embassy's work as a Danish Climate Front Post and is part of the Danish climate diplomacy. On November 22, 2021 the Danish Minister for Foreign Affairs Jeppe Kofod and Indonesian Minister for Foreign Affairs Retno Marsudi signed an agreement ensuring closer Danish-Indonesian cooperation towards achieving the UN Sustainable Development Goals and the global green transition. Talking about the importance of the INDODEPP programme the Danish Minister said *"It is crucial that we put action behind the fine words and follow up on our promises from COP26. Denmark is doing just that with this cooperation agreement, which has a special emphasis on Danish-Indonesia cooperation in the green transition and energy efficiency. This agreement clearly shows how we can put Danish competencies to work for the benefit of the global green transition. This is both about creating green jobs and strongly propelling development in one of the countries where, among other things, the phase out of coal must be accelerated to reduce global emissions,"*[1]

The cooperation builds on trust-based government-to-government relationships and applies a holistic and long-term approach for capacity building within regulative frameworks and policy reforms guiding the development of the energy sector. The partnerships leading to the INDODEPP were established in

[1] https://um.dk/en/news/newsdisplaypage/?newsID=682ED180-D4A5-4658-813A-5B3FEDF685D4

2008. Since then, the design of the government-to-government cooperation – inspired by the concept of Doing-Development-Differently (DDD) - has diversified into a holistic endeavor in mutual support of the technical assistance, Danish climate diplomatic efforts and the work of the Danish Trade Council. In order to be able to respond to opportunities and challenges in a complex and changing reality, the INDODEPP design applies the adaptive management approach, that ensures frequent interactions in the project management structure and flexibility in allocation of resources.

The project document was presented to the Programme Committee 4. October 2021. The appraisal was finalized in December 2021 by the MFA Department of Evaluation, Learning and Quality.

2. Project description - new elements in INDODEPP

The INDODEP interventions are concentrated at national level focusing on three outcomes: 1) introducing scenario based long-term energy planning and regulations, 2) strengthening integration of renewable energy and 3) enhancing national strategy for energy efficiency. The project will add a fourth outcome to INDODEPP which is: *Low carbon development in provinces is accelerated leading to more renewable energy projects and contributing to higher local climate targets.* The project will be showcasing possibilities for a low carbon development and green transition in provinces, which will support the INDODEPP engagement at national level. The principal objective of the project is in accordance with the OECD DAC Rio Markers for climate mitigation.

INDODEPP was commenced by the end of 2020. Since the start of the program, the two main partners have received a long term energy advisor (LTA). Both advisors have been well-received and are performing according to agreed assignments. In the Directorate General of Electricity (DGE) the LTA, together with experts in Danish Energy Agency (DEA), are assisting DGE with analysis and upgrading of energy modelling tools in support of the existing energy plans for reaching the renewable energy targets in 2025, as well as energy transition scenarios beyond 2025. The Ministry of Energy and Mineral Resources used the latter as input to the donor cooperation efforts leading up to COP26. The long term advisor posted in the Indonesian state-owned electricity utility (PLN) is mainly assisting PLN with wind power auctions and design of contracts leading to a four year roadmap for a first ever government tender for a wind farm project in Indonesia. With the assistance of DEA, Ministry of Energy and Mineral Resources is benchmarking key energy intensive industries and has concluded the supporting analysis together with the International Energy Agency (IEA). The work is feeding into the national energy efficiency framework, which has also benefited from the Danish assistance to energy savings scenarios and targets. DEA has provided analysis and calculations for a net-zero building for a new airport terminal to be used for training in how to use building codes and documentation of compliance at regional and municipal level.

The project will enhance the outreach and impact of the INDODEPP activities at national level by translating climate and energy policy and regulations into a local context. The project will build on the experience of the existing Strategic Sector Cooperation for Sustainable Island Initiative (2019-2022/DDK 7 million) which is implemented by the Danish Energy Agency (DEA) together with the Danish Environmental Protection Agency. The project expands the existing cooperation with Lombok Island in Nusa Tenggara Barat province and the Riau Island province with up to three additional

provinces. The aim is to introduce a holistic energy planning approach based on analysis of potential renewable energy resources, local government priorities and characteristics of the province. For instance, for Lombok/Nusa Tenggara Barat-province (NTB), a key feature is the lack of own fossil energy resources, leading to a wish to substitute fossil fuels with renewable energy based on agricultural residues and solar energy. The Investment Fund for Developing Countries (IFU) and Indonesian partners are now evaluating the possibility of applying Danida Sustainable Infrastructure Finance (DSIF) in a bio-energy project. For Riau Island Province, the proximity to Singapore can make the province a key partner in the national political ambitions to link the energy network to Singapore, and to deliver green energy to the metropolis. Riau Islands are also strategically situated in terms of global shipping lanes and the supply channel for vessels.

The new partner provinces will be identified using existing analysis of renewable energy potentials in different regions of Indonesia and other criteria which still need to be defined by the DEA and the National Energy Council (NEC). The project activities in the provinces will include technical training based on the Danish system planning approach (Strategisk Energiplanlægning) which also includes a structured outreach and involvement of the local community, civil society and universities e.g by transparent information and consultation. The further interventions will focus on bridging the gap between national planning and local project development; preparation for pre-feasibility studies for concrete investments in renewable energy solutions; and linking Indonesian partners to Danish peer role models of e.g. Bornholm and Samsø.

Working with local decision makers in selected provinces, the project will address the actual gap between the national ambitions and targets for a national green transition in the energy sector and a significant under-implementation of these targets in provinces. At present, the Ministry of Energy and Mineral Resources (MEMR) estimates that the actual investments in renewable energy projects represent only 54 pct. of the need to achieve the national ambitions for 2025[2]. The project will prove to local policy makers how analysis of renewable energy potentials in combination with a solid energy planning process can create a cost efficient vision for the green transition. The project might identify possible pilot and flagship projects of larger scale investments and energy system integration, which local government can pursue in the investment plans for the province. By bridging the gap between the national energy planning, regional energy planning and the actual implementation of cost efficient solutions for a green transition and a low carbon development the project largely supports the ambition of the overall INDODEPP engagement.

Lessons learned from the Sustainable Island Initiative and the Danish Energy Agency's cooperation with the Danish Environmental Protection Agency (DEPA) have shown that officers from local government agencies of energy and environment work closely together with officers from authorities of forest, tourism, agriculture, planning etc. in order to interlink the efforts of e.g. promoting bioenergy projects or developing green tourism. In order to strengthening a broader sector coupling, the project will work for holistic project solutions within the energy sector (electricity, cooking, transport, etc.) and

[2] - Tue, October 26 2021 - The Jakarta Post Painstakingly slow progress on renewable energy infrastructure

introduce long-term full decarbonisation strategies, which will increase investors' confidence in local green transition plans.

Local partners in the existing Sustainable Island Initiative have expressed a need for being able to evaluate socio-economic consequences of renewable energy projects, in addition to project-economy assessments. Apart from the generic assessments on socioeconomic impacts from renewable energy transition the project will cooperate closely with the International Renewable Energy Agency (IRENA), who is currently assessing the specific socio-economic impacts of a renewable energy transition in Indonesia.

Within the overall INDODEPP framework the project will be supported by the Embassy in Jakarta and in particular by the energy sector advisor, who will manage the interaction with bilateral and multilateral donors engaged in the energy sector and in the follow up initiatives after COP 26. A new investment advisor to be posted at the embassy in 2022 will be instrumental in matching local governments' energy plans and pipeline project with financial institutions and developers/investors. The project – as well as INDODEPP in general - may contribute with technical input and local experience to the activities of the Danish Trade Council.

3. Context, strategic considerations, rationale and justification

The project supports the climate priorities in the Danish Development Strategy "the World We Share". The Danish government's goal of contributing to the Paris agreements and the target of limiting the global increase in temperatures to 1.5 Celsius degree is supported by development cooperation also with growth economies, where the existing and projected increases in green-house gas emissions (GHG) are highest, thereby ensuring that the Danish contribution has the highest possible effect on global warming. The project advances the Danish ambition of ensuring access for all to modern, sustainable and affordable energy (SDG 7), including increased level of renewable energy in the global energy mix, doubling the global rate of improving energy efficiency and strengthening international cooperation in order to facilitate more investments in energy infrastructure and green technologies.

Indonesia is ranked as the sixth largest global GHG emitter. Before COVID 19, the country experienced annual growth rates of approximately 5% in the national economy and energy consumption, resulting in increasing energy-related CO_2 emissions. In 2021, the growth rates of the economy seemed to be back-to-normal with a projected GDP-growth of 4.7% in 2021 and 5.1% in 2022.

The main ambition of the Indonesian government is to provide affordable electricity for all and ensure stable energy supply for a growing middle-class in both urban and rural areas[3]. Major investments are needed in order to meet the increased energy demand from consumers and industry. If the government continues to prioritise coal, oil and gas in the energy production, it will have a significant negative impact on the global greenhouse gas emissions in years to come. In the run-up to COP 26 the

[3] Indonesia Economic Snapshot - OECD

Government of Indonesia pledged a commitment to meet net-zero emissions in 2060 - or sooner with international assistance. Part of the commitment is to have the growth in energy demand covered by renewable energy after 2028. In support of the COP26 pledge the parliament has speeded up the process of a new renewable energy bill.

The main challenge for Indonesia is to secure the availability of electricity in the process of introducing large amounts of fluctuating renewable energy – and this is where the Danish knowledge is demanded in Indonesia. The cooperation in the energy sector will apply the Danish experience of green energy transition in the dialogue with partners and will provide knowledge and technical solutions, as well as efficient regulatory frameworks to meet concrete challenges and reduce dependency of fossil fuels. INDODEPP has a national focus, whereas the project will apply the same approach in the provinces – but adjusted to local conditions and development challenges.

The project promotes low carbon development at provincial level. Ministry of Energy and Mineral Resources (MEMR) needs local governments in the provinces to act on the increased national climate targets, but commitments to de-carbonization at provincial level is still politically challenging and a sensitive issue, as large investments in energy infrastructure and jobs in e.g. mining depends on the production of coal and palm oil. The project will work closely with the provincial energy offices, which are deconcentrated units referring to MEMR. Their energy planning is monitored and approved by the National Energy Council (NEC) which is also one of the main partners of INDODEPP.

In the ongoing island initiative DEA has demonstrated that the use of evidence based energy scenarios and identification of a pipeline of green energy projects can overcome barriers for local governments support to green energy solutions. One of the present partners to the DEA is the island of Lombok, where local government at the COP26 presented a new ambitious net zero emission target for all sectors in 2050, including a target of 60 percent renewable energy in the electricity grid by 2030. The renewable energy pledge from Lombok is based on an optimized Regional Energy Outlook for the energy sector, which was based on local data and price expectations. The Regional Energy Outlook was developed together with DEA.

By expanding the number of DEA's engagements at the level of provinces and consciously exploring local energy resources in order to plan for least cost development and long-term full decarbonisation strategies, the ambition is that more provinces will replicate the experience of Lombok and that commercial investors will gain sufficient trust in the prospects of the green transition to engage with investments and knowhow.

The project will link the INDODEPP and the project efforts to concrete investments in green transition and the prospects of CO_2 reductions. The DEA is collaborating closely with Denmark's export credit agency (EKF) implementing the Green Investment fund, the Investment Fund for Developing Countries (IFU) and the Danida Sustainable Infrastructure Finance (DSIF) managed by IFU. The objective is to develop a coherent approach for bridging between technical assistance provided by the DEA and Danish financial institutions possibilities of financing projects. The collaboration is formalized based on MoU´s and country-specific action plans between DEA, EKF and IFU with the purpose of promoting investments in Danish green technology solutions. DEA has regular contact with country focal points from EKF, IFU and DSIF in order to facilitate, that the

experience of the financial institutions can inform e.g the regulative work of DEA and to identify investment opportunities for EKF and IFU. In 2021 the total Danish business investment portfolio was approximately USD 1.6 billion. It is the expectation that green solutions will become a large part of the total Danish investments in Indonesia. While DEA, through the project, may identify projects and suitable green solutions to development challenges in participating provinces, it will be the responsibility of the new investment advisor posted at the embassy in Jakarta, together with the Trade Council to promote the projects in the business community.

In the energy sector, the Friends of Indonesia Renewable Energy Dialogue (FIRE) has become the main instrument of donor coordination in preparation for the COP 26. Together with Indonesia, UK and Germany, Denmark is co-chairing the initiative, which in September 2021 was able to present to the Indonesian Minister of Energy and Mineral Resources a Coal Phase Out Acceleration Offer describing the donors combined mandate to provide financial support for early retirement of coal power plants, as well as technical assistance for institutional development, smart grids and integration of renewable energy sources as part of long-term least cost planning of the sector. Other participants are the Asian Development Bank (ADB) and World Bank as large donors to energy infrastructure in general, as well as the Climate Investment Fund's (CIF) "Accelerating Coal Transition Investment Programme" (ACT). The ACT programme is supporting both public and private sector entities and can e.g. provide technical assistance and funding for concrete projects.

Donor programmes dedicated to provincial and local development are the UK's Mentari programme and German GIZ programme, with whom the embassy coordinates when relevant. The embassy has furthermore established close coordination with the Global Green Growth Institute's (GGGI) work in Indonesia and in particular their Bio-Compressed Natural Gas project financed by Denmark.

INDODEPP will provide data, knowledge of local conditions and pin point pilot projects for funding from donors, financing institutions and investors, as well as feeding in prospects of financing to the planning process at the local level

The project will support the Danish Climate Diplomacy in Indonesia. The Embassy in Jakarta is a Danish "Green Front Line Mission". By applying all the Danish instruments of political dialogue, development cooperation and tasks of the Trade Council the Danish government wishes to encourage Indonesia to take ambitious steps related to the reduction of emissions e.g. as more ambitious NDC-targets and through the promotion of a green and sustainable development in the expanding urban areas across the islands.

For the Indonesian energy sector, the Strategy for the Danish Climate Diplomacy is to provide facts for political decisions; e.g. cost efficient solutions which is not jeopardizing the 24/7 availability of electricity and which are based on energy technology catalogues, and fact based scenarios that can show the pathway for a 1.5 degree ambition. The project contributes to the Danish Climate Diplomacy by bringing accurate and reliable data and analysis of particular local provincial conditions of the energy sector to the table. Hence, the project provides Indonesian based showcases for the embassy's dialogues on the cost and the benefits of the green energy transition that will be used in different interaction with politicians, civil servants and other cooperation partners. In addition, the cooperation between the embassy and the Danish Energy Agency expands the embassy's access to international best

practises and analytical capacities in support of diplomatic campaigns for specific aspects of the low carbon agenda, the green transition and the Danish strongholds in the energy sector.

The project benefits environmental concerns and promotes issues related to Human Rights, Gender and Indigenous peoples in local energy planning. In addition to climate change mitigation, the project will contribute to sustainable development in the provinces through the benefits associated with the low carbon solutions pursed in relation to health and environment. Environmental and health related benefits from transition to low carbon technologies would tend to benefit marginalized groups and the poorest part of the population most, and thus have a positive impact on sustainable development in the provinces. Investing in a green transition of the energy sector will support the creation of new green jobs opportunities. An increase in green jobs will contribute to gender equality, as evidence shows that a transition from black to green energy will yield more employment opportunities and higher quality jobs for women.

By introducing the Danish system planning approach (Strategisk Energiplanlægning) at provincial level, the project will ensure participation of local civil society and know-how by engaging e.g NGO's and academia in bringing key social-economic or environmental perspectives into the provincial planning process.

4. Theory of Change for the project.

The updated INDODEPP Theory of Change (ToC) that incorporates the new elements of this project are attached in annex 1. The theory of change for the project is outlined in causalities below.

If DEA contributes to capacity development of strong local partners within energy planning - focusing on the Danish planning tradition, which include resource assessments, stakeholder involvement, assessment of economy of transition and socio-economic benefits, ***then***

Provincial governments are enabled to make realistic local energy and climate targets and energy transition plans *and* ***if***

The project assists in making concrete prefeasibility studies and through the embassy facilitates promotion of local government's investment plans ***then***

Provincial governments can attract finance and investors for energy projects and ***then***

Renewable energy projects reducing CO2 emissions can become a reality and integrated in the energy transmission systems, ***and***

Provinces can contribute to Indonesia's national energy and climate targets, ***and***

Local showcases in provinces can pave the way for more ambitious renewable energy commitments at a national level.

5. Updated result framework for INDODEPP, including additional activities

The existing result framework for INDODEPP consists of three outcomes. The project's activities are expected to contribute to a new outcome 4 with three outputs:

Overview:

INDODEPP Objective	Outcomes	Outputs
The project has contributed to: meeting Indonesia's national energy demand in a more sustainable way; its NDC goals; SDG7 and SDG13 targets; and, more specifically, to the achievement of the 23% renewable energy goal in 2025.	1 Scenario-based long-term energy plans and regulation	1.1 Modelling capacity 1.2 Energy policy and planning 1.3 Regulation
	2 Integration of renewable energy	2.1 Wind power pilot tender 2.2 Energy forecasting and system operation 2.3 Least cost grid integration strategies and planning
	3 Enhanced national strategy for energy efficiency	3.1 Energy efficiency in buildings 3.2 Energy efficiency in industry and power plants
	4 Low carbon development in provinces	**4.1 Full decarbonisation strategies for energy** **4.2 Project solutions in a sustainable energy system** **4.3 Socio-economic analysis**

The project will support the objective of INDODEPP by supporting local interventions in provinces. While the current INDODEPP supports green transition in the energy sector, providing lower cost of energy, jobs and less pollution, the project will do so at the level of provinces. The outcome indicator is presented below.

Project/Programme	Indonesia-Denmark Energy Partnership Project (INDODEPP)
Project/Programme Objective	The project has contributed to: meeting Indonesia's national energy demand in a more sustainable way; reach Indonesia's NDC goals by reducing GHG-emissions; fulfil SDG7 and SDG13 targets; and the achievement of the 23% renewable energy goal in 2025

New outcome of INDODEPP	

Outcome 4		Low carbon development in provinces is accelerated leading to more renewable energy projects and contributing to higher local energy and climate targets. The local showcases for green transition pave the way for more renewable energy at national level supporting just transition, affordability of energy and socio-economic benefits.	
Outcome indicator		The provinces adapt Danish experience on energy planning and set local targets for decarbonisation and energy transition. Renewable energy projects will be adopted by developers.	
Baseline	Year	2021	Local governments request investment in renewable energy solutions and better tools for energy planning, but are hesitant to commit to decarbonisation and/or massive renewable energy-transition.
Mid-target		2023	Provinces have mapped local renewable energy potentials/projects and adapted some energy planning approaches based on the Danish experience. Some provinces have made local plan/commitments towards decarbonisation of the energy sector and/or 100 pct. Renewable energy-development.
Target		2025	Provinces have started implementation of RE projects. Some provinces are following pathways to full decarbonisation exclusively using renewable energy in the province's energy mix.

6. Brief analyses of the partners

The project is in line with the internal strategy for international collaboration of the Ministry of Climate, Energy and Utilities (MCEU) and the Danish Energy Agency. The strategy emphasizes long term cooperation and deep technical partnerships with trusted partners as a strategic driver for impact. The energy sectors in the partner countries are considered as critical infrastructure with high political awareness. Hence long-term and trust based relationship are required in order to promote green energy solutions. The international strategy highlights the need to collaborate with other stakeholders in the partner countries such as multilateral development organizations and commercial actors.

6.1 Existing partners

Ministry of Energy and Mineral Resources has been the main partner of the Danish cooperation and will continue to be so. The National Energy Council of Indonesia (NEC) under the Ministry has been a key-partner to DEA since the first Sector Strategic Cooperation in 2016. The Secretariat of the NEC is working on national energy plans, such as the Indonesia Energy Outlook. NEC is also responsible for provincial energy planning (RUEDs) and will be the national partner in the project. NEC's commitment to the Danish engagement with provincial energy planning is strong. NEC is facilitating the initial DEA contact to provincial governments and local energy authorities (Dinas), which are deconcentrated units of the Ministry of Energy.

The local branches of the national electricity utility (PLN) will become important partners in the provinces participating in the project. The local branch refers to the national PLN, where a Long-Term-Advisor is currently embedded as part of the INDODEPP. The joint approach of DEA and the Danish Environmental Protection Agency in the Sustainable Island Initiative has facilitated a good cooperation with the Indonesian Ministry of Environment and Ministry of Planning. It is the intention

to draw Ministry of Planning even closer into the cooperation, as the local branches of that ministry refers directly to Governors, while local energy authorities (Dinas) refer to the regional authorities for planning and development.

The project will engage with other stakeholders such as local universities in order to get their inputs and recommendations for energy planning and low carbon development. Similar to the approach at Lombok, universities will also be engaged in actual technical assessments leading to the regional energy plan and pre-feasibility studies.

6.2 New partner provinces

Potential new partners to the project will be subject to further screenings during the initial phase of the project. The screening process will include a set of criteria for selection and a long-list, which will be presented for the Steering Committee.

One criteria for selection of new partners will be the province's ability to support the INDODEPP-objective of contributing to Indonesia's climate and renewable energy goals. This includes evaluation of the size of the population, total energy consumption and characteristics for meaningful integration of renewable energy with the demand for energy. Political ambition, willingness and bureaucratic ability to cooperate could be taken into consideration in the selection, as well as possible Danish strongholds of green technological solutions. Other donors' engagements in provinces will be considered in order to seek complementary and synergies, as well as to avoid overlapping activities.

7. Overall budget at output-level

The additional budget for the new outcome of INDODEPP is listed below. Implementation will start in mid-2022 when the current SSC Sustainable Island Initiative project expires.

An additional reserve of unallocated funds of DDK 3.3 million has been included in the budget, bringing the total amount of unallocated funds in INDODEPP to a level of 12 percent of the total budget (see total budget of INDODEPP, below and in annex 3). Unallocated funds will allow existing partners and new partners in INDDEPP to apply for support to interventions beyond the approved results framework, when an unforeseeable and strategic opportunity arises during program implementation. Subject to the objectives described in chapter 8 unallocated funds can also be used for engagement of expert resources of the Danish Environmental Protection Agency, to facilitate the sector coupling approach envisioned for the whole of energy planning process leading to long term full de-carbonization strategies.

The budget covers DEA activities only and no funds will be transferred to partners in partner countries. The DEA sub-contracting of consultants follow EU regulation on public tenders.

Budget for the project:

Indonesia						
Outcome 4 - Low carbon development in provinces						
M DKK	2022	2023	2024	2025	Total	Percent

Output 4 - Low carbon development in provinces is accelerated leading to more renewable energy projects and contributing to higher local energy and climate targets. The local showcases for green transition pave the way for more renewable energy at national level supporting just transition, affordability of energy and socio-economic benefits.	1.6	3.4	2.2	3.5	**11.7**	78
Unallocated	0.0	1.1	1.1	1.1	**3.3**	22
Total	1.6	4.5	3.3	4.6	**15.0**	100

Total updated budget for INDODEPP is presented below where the enhanced support has been added to the original budget. In the original INDODEPP budget DKK 5 million was allocated for contingencies and DKK 1 million for unallocated funds. Following the recommendation from the appraisal the allocation for contingencies in the INDODEPP budget has been added to the budget line for unallocated funds, for administrative reasons. The criteria for using unallocated funds are described in chapter 8.

Total budget for INDODEPP including additional funds from the project:

Budget by year (mDKK)	**2021**	**2022**	**2023**	**2024**	**2025**	**Total**	**%**
Outcome 1	2.2	2.8	2.8	2.8	2.8	**13.5**	18%
Outcome 2	2.6	3.1	2.5	2.5	2.5	**13.2**	18%
Outcome 3	1.8	2.3	2.2	2.2	2.2	**10.8**	14%
Outcome 4	0.0	1.6	3.4	3.2	3.5	**11.7**	16%
Indo-DEPP Programme Management	0.5	0.5	0.5	0.5	0.5	**2.4**	3%
Long term advisors	1.8	2.8	2.8	2.8	2.8	**13.0**	17%
Analysis and review	0.0	0.0	1.0	0.0	0.0	**1.0**	1%
Contingencies	0.0	0.0	0.0	0.0	0.0	**0.0**	0%
Unallocated	0.0	0.0	3.1	3.1	3.1	**9.3**	12%
Total	8.9	13.2	18.3	17.1	17.4	**75.0**	100%

8. Management and reporting

The management structure and related process are adherent to the adaptive management principles integrated in the framework of Danida Aid Management Guidelines and "Guidelines for Country Strategic Framework, Programmes and Projects". Changes in the project design should always be based on changes in the project context or new knowledge on how to achieve better results.

The Strategic Advisory Group is overseeing implementation of the programme and consists of the responsible Heads of Units in Ministry of Foreign Affairs and The Danish Ministry of Climate, Energy and Utilities and with DEA as secretary. The Advisory Group will meet on a bi-annual basis, or when required, to discuss progress and adjust activities to lesson learnt. The Advisory Group is responsible for outcomes and outputs of the project and for approving programming and purpose of mobilising

unallocated programme funds. The Advisory Group can advise the Danish embassy on strategic actions to be pursued in policy dialogues on the energy and climate change agenda in the Indonesia.

The objective for the unallocated funds is to assist existing partners in their contribution towards the outcome of the project within one of the following areas: i) Dissemination of lessons learned across participating partner provinces that would stimulate cross fertilization; ii) Activating partnerships between Civil Society Organizations and academia; iii) Activities that will address barriers and opportunities to mobilize and leverage of investments for energy projects ; and iv) Promote a policy agenda of interest for both Denmark and the partner country. v) Engage and continue the cooperation with the Danish Environmental Protection Agency within energy-environment projects.

Applications for the use of unallocated funds will be evaluated against the following criteria: i) Clear contribution to the INDODEPP strategic objective; ii) Documented partner interest and commitment; and iii) Well-founded application agreed to in the steering committee.

The Country Steering Committee are co-chaired by the Director General of Ministry of Energy and Mineral Resources, the Danish Ambassador to Indonesia and the Deputy Director of DEA. The steering committee members include representatives from each engagement partner of INDODEPP. The Steering Committee meets bi-annually to approve annual work plans and the Annual Partnership Country Programme progress report and serves as a forum for policy dialogue.

Based on analysis and proposals from the working group, the Steering Committee will evaluate changes in the context of the project and identify new opportunities and/or approaches on how to achieve better impact, including how cooperation with bilateral donors, EU, Multilateral development Banks a.o. can be utilised to the benefit of the project activities. The Steering Committee will make a regular evaluation of risks to the implementation of the project. The influence of COVID 19 restrictions and the resulting need to delegate responsibilities in order to allow flexibility in implementation of the of work plans is an important task of the Steering Committee from the onset of the new activities.

The Implementation Group for the project will coordinate and manage daily implementation of the annual work programme. The members are representatives from selected provinces, DEA, the Long Term Advisors and energy sector advisor. The Implementation Group meets twice a year and have the responsibility of: i) monitoring programme progress at output level, ii) ensuring cross fertilisation within and between engagements of INDODEPP, iii) identifying new opportunities for cooperating with other donors and iv) insuring adaptable and flexible implementation of the work plan in response to e.g. new developments in the COVID 19 situation or in other risk factors.

The Implementation Group reports to the Steering Committee. The implementation group will provide the needed material for the work of the Steering Committee, including proposal for use of unallocated funds, identification of concrete opportunities for cooperation with other donors, development banks et cetera and proposals for work plans including risk evaluation and adjustments to be applied if e.g identified risks occurs.

DEA will report on progress, results and financial management to the Danish Ministry of Foreign Affairs once a year in accordance with the aid Management Guidelines. Annual reporting will be submitted to the Advisory Group.

9. Risk analysis

The risk analysis of the proposed additional activities complements the updated overall risk assessment for INDODEPP, which is available in annex 4. The main national partner engaged in the additional funding is National Energy Council (NEC) of Indonesia, under the Ministry of Energy and Natural resources. NEC have expressed interest in a closer engagement from DEA in provinces. Previously engagements in provinces have been largely successful and NEC has reaffirmed its commitment to engage with Denmark in a government-to-government modality. Nevertheless there are both contextual, programmatic and institutional risks, which need to be carefully examined and reflected upon as part of the programme.

- ***Covid-19 restrictions*** have affected and still affect international travel to Indonesia and thus the ability of the DEA and international consultants to support the project on the ground. Extensive use of video conference and increased use of local consultants mitigate the impact of the risk on project implementation. The risk is considered to be high.
- ***The commitment from the local partners in provinces remains essential for success.*** Sudden changes in priorities at local level can happen. Frequent contact and visits to provinces make the cooperation less sensitive and adaptable to changes in local priorities. If a partner does not allocate sufficient resources for the cooperation, DEA will cease the cooperation with that island/province and use the resources for increased cooperation in another island/province with more commitment. The risk is considered to be *medium*.
- ***The political risk of prioritizing national resources such as coal, gas and palm oil instead of renewable energy technologies persist.*** Currently the political long-term trend is that government will prioritize renewable energy. However, the political-economy of strong economic interests tied to the coal production remains to pose a risk for an in-depth green transition of the energy sector. If economic rational solutions of green energy production are hampered by political concerns the capacity development in energy planning and economic optimization for green development will still be anchored in local authorities, who will continue to have an economic incentives for investing in price competitive renewable energy production. The risk is considered medium.

Annexes

1) **Annex 1: INDODEPP project document approved 2020**
2) **Annex 2: Updated INDODEPP Theory of Change, including the project**
3) **Annex 3: Tentative activity-list for new outputs**
4) **Annex 4: New total INDODEPP budget**
5) **Annex 5: Risk management matrix for INDODEPP including this project**
6) **Annex 6: Project Action Plan (PAP)**
7) **Annex 7: Appraisal Recommendations**

Annex 1: INDODEPP project document approved 2020

Danish Ministry of Foreign Affairs of Denmark (MFA)
Danish Ministry of Climate, Energy and Utilities (MCEU)
Danish Energy Agency (DEA)
Indonesian Ministry of Energy and Mineral Resources (MEMR)
Indonesian State-Owned Electricity Utility (PLN)

Indonesia-Denmark Energy Partnership Project (INDODEPP)

2020-2025

Project Document

30 September 2020

Ref: F2 2020-13768

List of key abbreviations and selected terminology

Note: For the key INDODEPP Indonesian national partner ministries/institutions, the English abbreviations are generally used (e.g. MEMR instead of ESDM), consistent with the generally used acronyms in an international cooperation context – while for regional entities, the Bahasa acronyms are generally used. Depending on the feedback received on this draft PD, this practice could be changed to more consistent use in either language.

ACE	ASEAN Centre for Energy
ADB	Asian Development Bank
AMG	MFA/Danida Aid Management Guidelines
ASEAN	Association of South East Asian Nations
Bahasa	Bahasa Indonesia, national language
BAPPEDA	Badan Perencana Pembangunan Daerah (Indonesian regional body for planning and development)
BAPPENAS	Ministry of Development Planning of the Government of Indonesia
BaU	Business-as-Usual
BEMS	Building energy management systems
CCEE	Copenhagen Centre on Energy Efficiency
CEM	Clean Energy Ministerial
CETP	Clean Energy Transitions Programme, an IEA global flagship programme providing support to Indonesia and other developing economies
COP	Conference of the parties (under the UNFCCC)
CO_2	Carbon dioxide
CTCN	Climate Technology Centre and Network
Curtailment	Reduction of renewable energy production (e.g. of a wind farm by shutting-down wind turbines) to mitigate issues associated with export to the grid, or inflexibility of thermal power plants, etc.
DAC	Development Assistance Committee (OECD)
Danida	Brand name for Danish international development cooperation, under the Ministry of Foreign Affairs of Denmark
DEA	Danish Energy Agency
DED	Development Engagement Document
DEPP	Danish Energy Partnership Programme (China, Mexico, South Africa, and Vietnam)
DFC	Danida Fellowship Centre
DFID	UK Department for International Development
DGE	Directorate General of Electricity, MEMR
Dinas ESDM	Dinas Energi Sumber Daya dan Mineral (regional offices of ESDM – MEMR in English). Note: for regional entities, the Bahasa acronyms are generally used in this PD.
DKK	Danish Kroner
E4	IEA Energy Efficiency in Emerging Economies Project
EBTKE	Directorate General for New and Renewable Energy and Energy Conservation (DGNREEC), MEMR
EDC	Energy Development Commission
EE	Energy Efficiency
EIA	Environmental impact assessment
Energinet	Danish transmission system operation
ESCO	Energy service company
ESMAP	World Bank Energy Sector Management Assistance Program
ESP	Environmental Support Programme (1, 2 and 3 in Indonesia)
ES	Energy savings (used here for energy savings standards in buildings)
EUDP	Danish development and demonstration programme for energy technology
F2	MFA, RDE, MEUC, DEA electronic archive system

FFSR	Fossil Fuel Subsidy Reform
Flexibility	For the purpose of this Project, flexibility is the ability to handle variability and uncertainty in generation and demand while maintaining satisfactory reliability.
Forecasting	Forecasting is the prediction of power generation from variable energy sources such as wind and solar power and demand so that system operators can plan the schedule for power generation.
GGGI	Global Green Growth Institute
G20	The Group of Twenty (leading World economies)
GCF	Green Climate Fund
GDI	MFA Department for Green Diplomacy
GDP	Gross domestic product
GHG	Green House Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit, German technical cooperation agency
GOI	Government of Indonesia
GSI	Global Subsidies Initiative
GtG	Government-to-Government
GW	Gigawatt
HRBA	Human Rights-based Approach
INDODEPP	Indonesia-Denmark Energy Partnership Project
IDR	Indonesian Rupiah
IEA	International Energy Agency
IFU	(Danish) Investment Fund for Developing Countries
IISD	International Institute for Sustainable Development
IPP	Independent power producer
IRENA	International Renewable Energy Agency
Kementerian BUMN	Ministry of State-Owned Enterprises (MSOE) of the Government of Indonesia
KEN	National Energy Policy (formulated by NEC)
KfW	KfW Banking Group Germany (original name Kreditanstalt für Wiederaufbau)
KLHK	Ministry of Forestry and Environment (MOFE) of the Government of Indonesia
KLIK	Biro KLIK is the unit within MEMR that coordinates international cooperation
KPI	Key performance indicator
KPK	Indonesian independent anti-corruption unit
LCOE	Levelized cost of energy[4] - the average lifetime costs of providing one MWh for a range of power production technologies or power savings and thus help compare and select the optimal technologies in future national energy supply.
LINTAS	A Clearing House for EE and RE as a one-stop information centre/hub used by government, energy-sector stakeholders and general public.
LOI	Letter of Intent
Long-term planning	For the purposes of this Project, long-term energy planning is understood[5] as the process that sets a long-term direction for energy sector development, based on qualitative approaches and quantitative analysis.
LTA	Long-term advisor

[4] DEA has developed an LCOE Calculator that enables country specific comparisons of the average costs of conventional and new energy solutions, giving a holistic assessment of future costs focusing not only on project specific costs (investment, O&M, fuels, etc.), but also system and society costs.

[5] There are several steps and components that constitute long-term energy planning, with scenario analysis and modelling as foundations, accompanied with other key elements such as the development of a vision for the energy sector, assessment of resource potentials, the establishment of targets and related enabling policy, regulatory, institutional and financial frameworks.

LULUCF	Land-Use, Land-Use Change and Forestry
MCEU	Danish Ministry of Climate, Energy and Utilities
MEMR	Ministry of Energy and Mineral Resources, Government of Indonesia (MEMR is also referred to as ESDM in Bahasa). In this PD, the MEMR acronym for the Ministry is used, in line with common practice in international cooperation.
MFA	Ministry of Foreign Affairs of Denmark
Modelling	In the specific context of this Project, modelling[6] refers to a method to devise quantitative energy scenarios with the aid of computerised modelling tools.
MOF	Ministry of Finance of the Government of Indonesia
MOFE	Ministry of Forestry and Environment
MOM	Minutes of meeting
MOU	Memorandum of Understanding
MTR	Mid Term Review
NDC	Nationally Determined Contribution (under the Paris Agreement on Climate Change)
NEC	National Energy Council of Indonesia
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PD	Project Document
P4G	Partnering for Green Growth and the Global Goals 2030
PLN	PT Perusahaan Listrik Negara (Indonesian State-Owned Electricity Utility)
PP	Power plant
PPP	Purchasing Power Parity
PPA	Power purchase agreement
PPU	Power Processing Units
PV	Photo voltaic
Ramping	Ramp rate is the rate at which a power plant can increase or decrease output (e.g. % per minute)
RDE	Royal Danish Embassy in Indonesia (in some cases also referred to as the Embassy of Denmark (EDK))
RE	Renewable Energy
RENSTRA	Indonesian Rencana Strategis (national strategic plans)
RIKEN	Master plan for national energy conservation
RUED	Rencana Umum Energi Daerah (Regional master plan for energy system development, formulated by regional government)
RUEN	Rencana Umum Energi Nasional (Master Plan on National Energy, formulated by MEMR)
RUKN	Master plan on National Electricity (formulated by MEMR)
RUPTL	Rencana Usaha Penyediaan Tenaga Listrik (Electricity Supply Business Plan, formulated by PLN)
SC	Steering committee
Scenarios	Consistent projections of developments used to map future uncertainties, to support informed decision-making.
SDG	Sustainable Development Goal
SEforALL	Sustainable Energy for All
SII	Sustainable Island Initiative (SSC)
SMART	Specific, measurable, attainable, relevant, timebound

[6] Many types of modelling approaches exist, with differences among them mainly related to their level of technological and economic representation. For example, certain models have detailed energy system representation with limited representation of economic feedbacks, while others have detailed representation of economic structure with limited representation of physical energy systems. Long-term energy scenarios are often developed using the first type of model, to understand possibilities and uncertainties around energy transitions, as physical realities are critically important in defining transition possibilities. The second type of model is important to understand the economic implications of transitions, which are often the critical factor in determining political feasibility.

SoMe	Social media
SSC	Strategic sector cooperation
SWOT	Strengths, weaknesses, opportunities, threats
TA	Technical assistance
TOC	Theory of Change
TOR	Terms of reference
TSO	Transmission system operator
UDP	UNEP DTU Partnership
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNSG	United Nations Secretary General
UPR	The Danish Council for Development Policy
USAid	United States of America - International Development agency
USD	United States Dollar
VRE	Variable renewable energy (in the Concept Note referred to as fluctuating renewable energy)
WB	World Bank
WRI	World Resources Institute

1 IDR = 0.000428001 DKK
1 DKK = 2,336.44 IDR
27 September 2020
The Indonesian Financial Year is the calendar year

Contents

1. Introduction

The United Nations (UN) Sustainable Development Goals Report 2020 shows that the world is way off-track to meet the Paris Agreement target[7], and that despite commitments to SDG13 (Take urgent action to combat climate change and its impacts), the climate crisis continues unabated. The Report also shows that while the world continues to advance towards sustainable energy targets, efforts are not of the scale required to achieve SDG7 by 2030 (SDG7: Ensure access to affordable, reliable, sustainable and modern energy for all). The Report emphasises that stepped-up efforts in renewable energy (RE) are needed to achieve long-term climate goals and that improvements in energy efficiency (EE) – key to reducing greenhouse gas emissions – are falling short of the SDG target. The Covid-19 (coronavirus) pandemic has brought a new urgency to expand sustainable energy solutions in support of a green and just recovery from this crisis.

Denmark has collaborated with the Government of Indonesia (GoI) on improvement of the environment in Indonesia since 2005 through the Environmental Support Programme (ESP). ESP phases 2 and 3 included cooperation in the energy sector and this has then continued since 2016 with the Strategic Sector Cooperation (SSC) projects in a Government-to-Government (GtG) energy partnership to support the Indonesian commitment to the Paris Agreement and SDGs, particularly SDG 7 and SDG13. In 2015 Indonesia and Denmark signed a Memorandum of Understanding concerning cooperation in renewable and clean energy and energy conservation (the MoU is included – in English version only - as Annex 16). Denmark thus has a Strategic Partnership with Indonesia and the Royals Danish Embassy (RDE) in Jakarta is one of the Climate Front Posts[8] and a priority for Danish climate diplomacy. The partnership has also demonstrated the relevance of the Danish energy transition model to Indonesian partners who have found Denmark's and the Danish Energy Agency (DEA's) know-how and experience relevant and beneficial to support Indonesia transition to sustainable energy and to contribute to reaching the targets of Indonesia's Nationally Determined Contribution (NDC) under the Paris Agreement.

In support of the goals of the Paris Agreement, Denmark is committed to enhanced global efforts assisting the largest emitters of greenhouse gases (GHGs) to raise their national climate ambitions. Denmark's Strategy for Development Cooperation and Humanitarian Action, "The World 2030", has strong focus on the Paris Agreement and the SDGs to provide support and facilitate increased investments in areas related to climate change mitigation and sustainable energy where Denmark has strong expertise and experience.

Established in 2008, the Danish Climate Envelope is a mechanism for channelling dedicated climate funding to support international development cooperation at both bilateral and multilateral levels within mitigation and adaptation activities - in line with Denmark's commitment to contribute to international climate finance. The Climate Envelope targets the following impacts: i) reduced greenhouse gas emissions; ii) increased climate resilience, specifically for vulnerable and marginalised groups, and supports transformational change in emerging economies and developing countries. The Ministry of Foreign Affairs of Denmark (MFA) is overall responsible for the Danish Climate Envelope. The right to propose new initiatives is divided between the MFA and the Danish Ministry of Climate Energy and Utilities (MCEU). The Climate Envelope has funded energy-related climate change mitigation partnership programmes with China, Vietnam, South Africa and Mexico since 2012, with Ethiopia since 2016, and with India since 2019.

[7] The central aim of the Paris Agreement on Climate Change is keeping a global temperature rise well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius. Currently, global temperatures are on track to rise as much as 3.2°C by the end of the century. To meet the 1.5°C – or even the 2°C – maximum target called for in the Paris Agreement, greenhouse gas emissions must begin falling by 7.6 % each year starting in 2020.

[8] https://um.dk/en/news/newsdisplaypage/?newsid=cefe2525-154d-4d1f-9c27-34fa74f23c1a

Based on initiative from MCEU the Danish Government's coordination committee has allocated DKK 37.5 million from the Climate Envelope[9] 2020 for bilateral energy cooperation with Indonesia and a further DKK 22.5 million from the Climate Envelope in 2021, for a total of DKK 60.0 million.

2. Strategic Considerations and Justification

2.1 Project Identification and Formulation Process

In February 2020, the Indonesian Director General for New and Renewable Energy and Energy Conservation (DG-EBTKE), who is chairman of the Indonesian-Danish SCC Steering Committee, requested additional support for:

1) Strengthening the institutional capacity for energy modelling and planning in and across relevant institutions to increase quality and alignment of energy plans.
2) Assistance to Indonesia as GtG support with regard to regulation to attract investments in renewable energy.
3) Supporting the development of selected regional energy plans.
4) Capacity development for renewable energy integration, and exchange of experience with Denmark on management of a system with a large share of variable renewable energy.
5) Energy efficiency and energy demand management.

An identification and formulation process then proceeded, building upon the long-standing cooperation with the key Indonesian partners. In particular this includes the Ministry of Energy and Mineral Resources (MEMR) and its EBTKE and the MEMR Directorate General of Electricity (DGE), the National Energy Council (NEC), and the public utility company PLN. It has been discussed with them as a proposed deepening and widening of the ongoing SSC cooperation. A Concept Note for "Danish-Indonesian Energy Cooperation" prepared by RDE and DEA was discussed at the Danida Programme Committee meeting[10] on 23 June 2020. A team of external consultants was mobilised at the end of July to assist the MFA Department for Green Diplomacy (GDI), DEA, and RDE in formulating the proposed partnership documentation. A series of meetings[11] were held with Indonesian partners during August and September 2020 to identify and confirm Indonesian partner needs and priorities and further define the cooperation, while ensuring alignment with Indonesian policies and plans and ensuring the best match with Danish expertise, experience and added value. The consultation process has shown that the identified key partner priority needs, which Denmark is well placed to deliver on, are scenario-based long-term energy plans and regulation, grid integration of variable renewable energy, and energy efficiency. A Consultation Document has been an important tool in these close consultations. The Document, which has been through a number of revisions based on the meetings held and based on separate meetings among the Indonesian partners, contains the proposed Results Framework at Impact, Outcome and Outputs levels as well as indicative activities to produce the outputs; outline job profiles for the embedded long-term advisors (LTAs) are annexed to the document. An in-process appraisal led by the MFA Department for Department for Sustainable Investments, Job, and Equal Opportunities (GJL) has been undertaken during September, and the appraisal team has participated in meetings with Indonesian partners and commented on the draft INDODEPP Project Document (PD). Based on this process, a final Consultation Document was agreed in a meeting on 25 September between the Indonesian Chairman of the Steering Committee, other high level representatives of partner institutions, the Danish Ambassador, and DEA - and the Document was

[9] The Climate Envelope is managed as an integrated part of Danish international development cooperation and follows the MFA's Aid Management Guidelines (AMG) including the Guiding Principles for the Danish Climate Envelope.
[10] Among the Committee's key conclusions was the need to build the necessary flexibility and adaptability into the project, and to align to the DEPP III approach.
[11] Due to the Covid-19 restrictions, the meetings were held on virtual platforms.

formally signed at the Steering Committee on 29 September, as a reflection of partner commitment to the chosen areas of cooperation, subject to the formal approval process for the Danish funding.

2.2 Strategic Considerations

The Indonesian Context

Indonesia is the fourth most populated country in the world with a population of about 270 million in an archipelago of 17.000 islands, where 6.000 are inhabited. Indonesia has the world's largest Muslim population and numerous religious minorities, and while religion plays a big role in Indonesian society, it is also characterized by tolerance and coexistence. Indonesia's dynamic democracy has free and fair elections and freedom-of-speech, but it is also a young and still maturing democracy. Through history, there have been cases of ethnic, religious and social tensions and unrest. While Indonesia has experienced steady economic growth in recent years and achieved substantial development progress, development across the country is uneven – poverty rates are seven times higher in Papua than in Java – and inequality remains a pressing challenge for the government. About 20% of Indonesia's population – about 25.1 million people – remain vulnerable to poverty[12], with income just above the international poverty line. And it gets worse outside the islands of Java and Sumatra, which contribute about 80% of GDP. Due to the Covid-19 pandemic, Indonesian GDP has contracted with (minus) 5.32% in Q2 2020[13]. The government predicts that the unemployment rate would be between 7.7 – 9.1% next year. That would be a huge increase from the current unemployment rate of 4.9%.

Indonesia is ranked as the sixth largest global GHG emitter – mainly due to the large emissions from forestry.[14] This includes pressures on tropical rainforests due to palm oil production. The country has in recent years experiencing annual growth rates of approximately 5% for the national economy, energy consumption and CO_2 emissions. Thus, Indonesia is already facing needs for major investments in the energy system that will have a significant impact on the global greenhouse gas emissions in years to come. However, Indonesia also prioritizes 100% access to electricity[15] and cheap electricity to all for social protection and secure energy supply conditions for a growing middle-class in both urban and rural areas. Known technologies, namely coal, palm oil and natural gas, provide a stable and well-proven solution for achieving these goals and continued reliance on these sources could be the result if Indonesia were to choose an unsustainable post-Covid-19 recovery of economy, where increased use of coal would increase GHG-emissions significantly. Increased use of palm oil would also lead to more deforestation and loss of biodiversity.

Indonesia's Nationally Determined Contribution (NDC) to the Paris Agreement under the UNFCCC includes an unconditional target of 26% GHG reductions by 2020 and 29% by 2030 compared to Business-as-Usual (BaU). The current energy policy is projected to increase GHG-emissions significantly. Indonesia's NDC projected its 2030 BaU to be more than double 2010 GHG levels. (See table A-1.1: Indonesia's First NDC in Annex 1 for details). Indonesia "only" expects to reduce 10% of its GHG-emissions from forestry while the expected increase from the energy sector in the same period is expected to rise by as much as 268%. This clearly underlines the rationale for international support and links well with Danish core competences and the Danish SDG7 leadership. It also clearly linked to the conditional high target in the NDC, where Indonesia promises to increase ambitions from 29% to 41% reduction by 2030, if sufficient international support is provided.

[12] https://www.worldbank.org/en/country/indonesia/overview
[13] https://www.bps.go.id/pressrelease/2020/08/05/1737/-ekonomi-indonesia-triwulan-ii-2020-turun-5-32-persen.html
[14] https://www.wri.org/our-work/topics/indonesia
[15] https://www.thejakartapost.com/news/2020/04/03/indonesia-to-electrify-433-remote-eastern-villages.html

Even with the current policy of reaching 23% RE by 2025 (an increase of 24 GW from 10 GW in 2019)[16] it is expected that Indonesia will establish additional 30 GW fossil-fuelled power plants before 2025, which should be compared to the existing total capacity of 69 GW (both RE, coal, oil and gas). It is very important to note that Indonesia has great RE potential and that the Indonesian partners have underlined the importance of this partnership in support of realising this potential, particularly with regard to wind energy. It is estimated that Indonesia has a total potential of about 400 GW renewable energy sources, including hydro, wind, solar, tidal, sustainable bioenergy, and geothermal energy. DEA has in the current Indonesian-Danish SSC partnership calculated that if Indonesia accelerates the use of the enormous renewable energy resources in a cost-effective manner it would save the world from extra 400 million tons of CO_2-emissions each year. This equals 12 times the annual Danish CO_2 emission from energy production.

Political economy

The energy sector in Indonesia is driven by different political priorities, i.e. access to affordable energy, low electricity tariffs and low generation costs, quality and reliability of electricity supply, increased RE energy share in the energy mix and climate change mitigation, as well as the overall economic and industrial dimension of energy in terms of energy security, employment, and export. These priorities feed a constellation of conflicting interests and different stakeholder positions towards the energy transition and the GOI's high ambitions for RE. According to an IISD study (2019), the coal industry represents an important economic driver for Indonesia through coal export and employs around 125.000 people. Since 2007, the increases in electricity production to meet the growing demand have been largely met by an increase in coal generation capacity. The sector has received considerable government support in the form of loan guarantees, tax exemptions and price compensation, and this indirectly reduces the costs of coal-based electricity generation and affects the competitivity of RE – and it challenges Indonesia's NDC targets, as coal-fired power plants represent a major source of GHG emissions. Concerning the palm oil industry, rising domestic demand for palm oil as a result of Indonesia's national biodiesel programme will hardly be met by current palm oil production or by efficiency improvements in the industry. According to a WRI study, it is estimated that increasing palm oil demand will encourage the clearing of 72,000 square kilometres of land. Palm oil is a monoculture with much lower carbon storage than native rainforest. Clearing forests to harvest biofuels releases far more carbon into the atmosphere than the carbon that biodiesel reduces by replacing fossil fuels – and it hage a high negative impact on the environment and biodiversity. This net increase in emissions would thus eliminate the climate purpose of switching to biodiesel and challenge Indonesia¨s NDC. In 2019, the Indonesian President declared a moratorium on the issuance of new permits for palm oil plantations, although smallholders in particular are still clearing rainforest for palm oil production. MEMR and PLN have the mandate to drive the achievement of the 23% RE by 2025. The overall balancing act for the Ministry and PLN is to integrate more RE while ensuring an affordable, quality and reliable power supply, in a context where RE generation costs are not yet fully competitive with coal-based generation, and there is a shortage of skills and knowledge about RE. Then, setting tariffs at a rate that could be economically viable for both IPPs and PLN remains challenging. A number of approaches have been tested (feed-in tariff (FIT), price cap) but power purchase agreements between IPPs and PLN have been limited. While the Ministry of Finance and the National Parliament are not opposed to financial incentives for RE, they have several other priorities (e.g. State budget stability, PLN financial stability, priority to subsidise in support to poor people). According to an IISD study, the Ministry of Finance is almost the only branch of government that favours increasing electricity tariffs—subject to what is politically feasible—since this would reduce the size of the subsidy which the ministry needs to provide to PLN.

Key Danish strategic Considerations

[16]http://ebtke.esdm.go.id/post/2019/12/06/2419/kejar.target.bauran.energi.2025.dibutuhkan.investasi.ebt.hingga.usd3695.miliar

Denmark and Indonesia have a long-standing partnership since 2005 and a Memorandum of Understanding on collaboration in energy. The Danish Government Strategy "The World 2030" prioritises SDG7 and SDG 13 interventions in emerging economies and as global public goods. The new Danish Climate Act points to the opportunities for Denmark to increase Denmark's international support to GHG-reductions among the largest GHG-emitters. The RDE is one of the Climate Front Posts and a priority for Danish climate diplomacy.

There is ongoing successful cooperation through SSC within 1) Energy and Climate, 2) the Sustainable Island Initiative, 3) Waste and Circular Economy and 4) Food and Agriculture, and these GtG-partnerships give Denmark a rather unique position in the bilateral climate diplomacy and development cooperation relations with Indonesia.

The identified topic areas for INDODEPP partnership focus on support within planning and regulation, RE, and EE, which can show a greener development path and facilitate a just transition that can also lead to significant job creation. EE will lower energy demand and thereby save expensive investments, induce industries and building resilience and reduce pollution from power production. These are areas where Denmark can draw on lessons learned from previous and ongoing cooperation as further described in Section 2.4 and where Denmark has a comparative strength and interest as further described in Section 2.5.

The partners and entry points for cooperation are those who have the mandate in the Indonesian institutional architecture for the selected outcomes and outputs - there are no alternatives to these project partners, as tested and confirmed through SSC cooperation.

A further strengthening and deepening of the ongoing cooperation within energy and climate will further contribute to the bilateral diplomacy on climate and sustainable development in a broad sense:

- Energy policy is an important tool in the Indonesian social policy with strong links to equality and a just transition, mitigating against risks of potential social unrest and thus also indirectly supporting the democratic development in Indonesia.
- Indonesian energy policy has potentially great positive/negative impact on GHG-emissions and on natural resource management in some of the remaining largest tropical rainforests on earth, also being habitat to endangered species such as orangutans, etc.
- Indonesia showed willingness to join climate-ambitious countries like Denmark in "Energy Transition Track" at the UN Climate Summit in September 2019, but it requires a persistent green diplomatic effort to withhold and keep the good collaboration.
- INDODEPP will be a key activity supported by the RDE serving as one of the MFA's Climate Front Posts, elevating the energy policy dialogue and delivering climate diplomacy to senior GOI levels while also seeking to mainstream climate change and sustainable energy issues throughout Denmark's foreign, development and trade policy.

Moreover, there is a strong potential for synergy in Indonesia between Denmark's bilateral and multilateral development cooperation as further described in Section 2.6 and in Annex 14. This synergy between bilateral and multilateral cooperation is considered very important.

The INDODEPP delivery modality is centred on technical assistance (TA) delivered mainly as short-term inputs by DEA and with additional inputs from the Danish TSO Energinet and external consultants to be procured by DEA. Central to the TA delivery model are the planned two international long-term advisors (LTA) whose posting in partner institutions DGE and PLN will provide targeted expertise in ongoing peer-to-peer working relations and facilitate targeted short-term TA inputs and a sustained capacity development effort under the project, with a clear focus on institutional learning and uptake and application of knowledge and experience gained. This is a tested model for energy partnership collaboration that has proven its value in DEPP and other bilateral energy partnerships with over 15 countries. As INDODEPP is essentially a capacity development effort, there is strong emphasis on a

capacity development strategy that focuses on partner uptake, institutional learning, and sustainable capacity development outcomes. A strategy for INDODEPP capacity development is given in Annex 10.

2.3 Justification[17] for the Proposed Project in relation to OECD DAC Criteria

The Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) has defined six evaluation criteria which serve as the reference frame for evaluating international cooperation projects and programmes and which are also a useful frame for the justification of the project, as reflected in the table below.

Table 2.1 below summarises the project justification related to OECD DAC criteria:

Table 2.1 Project justification related to OECD DAC criteria

Criteria	Justification
Relevance	• The Project is highly relevant to partner needs as it is directly aligned to and supportive of the target to achieve 23 % RE in the Indonesia national energy mix in 2025 and of the mitigation goals in Indonesia's NDC. • The support was requested by the partner ministry MEMR and through the formulation process the strong relevance to partner needs has been confirmed and articulated through a consultation document which has been signed by the Steering Committee.[18] • The Project is relevant to the global sustainable development agenda, including SDG7, SDG13 and several other SDGs as well as the Paris Agreement on Climate Change.
Internal and external coherence	• INDODEPP addresses interlinkages between this intervention and other activities carried out by the other government institutions in the sector (internal coherence) as well as complementarity and coordination with other international cooperation projects and programmes to avoid duplication of effort ("external coherence"). Coordination with other international cooperation partners will be ensured under the leadership of the host government and be monitored by the project Steering Committee. Coherence across sectors is also supported through the project's focus on supporting the energy transition whilst fostering Indonesian economic growth through building a cost-efficient electricity system and job creation in the RE/EE energy sector and its contribution to public health through reduced air pollution and GHG emission reduction, and to the country energy security.
Effectiveness	• The project gives priority to interventions where transformational change can lead to build-up an enabling environment for the energy transition. This includes changes in systems and structures aligned to Indonesian priority needs, including designing scenario-based long-term energy plans and regulation, integration of renewable energy, and enhanced national strategy for energy efficiency.

[17] While this may not be directly related to the OECD DAC criteria, INDODEPP is highly relevant to Danish development priorities as articulated in "The World 2030" (its section 2.6 focuses on SDG 7 and 13 in transition and growth economies and in global public goods/Danish key issues) and to the Guiding Principles for the Danish Climate Envelope. The focus on RE and EE is directly relevant to the Danish Government 's priorities for development cooperation including the green ambitions and strategic importance of SDG 7 contained therein. The Project is also highly relevant to Danish strengths, interest and opportunities for engaging Danish public and private actors. This is illustrated by the strong role played by DEA in SSC where experience from the Danish energy model and its emphasis on RE and EE has been demonstrated and applied in reponse to partner needs.

[18] The Consultation Document included the INDODEPP results framework at outcome and output levels contains indicative activities to be undertaken to deliver outputs and outcomes. This document has been agreed with the key partners and wase signed at the Steering Committee meeting on 29 September as a clear reflection of the relevance of this partnership.

	• Its cooperation modality of peer-to-peer exchanges of good practice and paths to avoid also helps facilitate effectiveness through focus on what matters most in the transition, as per Danish experience and DEA experience from partnerships in other countries similar to Indonesia.
Efficiency	• Current energy models, planning and policy data are not consistent, and targets are not sufficiently aligned across institutions. It is an explicit focus of INDODEPP to strengthen and align energy policy and planning among stakeholders, which can contribute to major efficiency gains (and better effectiveness). • It is also a purpose of the cooperation to contribute to reaching Indonesian NDC targets on the share of renewable energy with a lowering cost level. • The project builds upon the relationships, policy dialogue and experience of collaboration between the Embassy of Denmark and MEMR developed under the SSC projects and ESP programmes with partners in Indonesia since 2008. • Lessons from other similar partnership programmes have shown that the combination of a Sector Counsellor at the Embassy, DEA short-term inputs, embedded LTAs and external consultants, can provide a flexible and efficient package of support in long term partnership for transformational change; the use of TOR to define the best combination of inputs for each major task in the agreed work plans will further enable attention to efficiency in resource utilisation. And while it is recognised that Danish TA is comparatively expensive, the proven model for DEA energy partnerships and DEA experience from such cooperation in over 15 countries including large countries such as China and India will further facilitate efficiency in delivery of technical assistance under INDODEPP and the lessons the DEPP II mid-term review in 2019 concerning programme efficiency will be borne in mind. • The mechanism of cooperation has already been set-up under the SSC and the Steering committee/management structure has demonstrated flexibility to allow adjustments in project activities. • Strong relationships have been developed with other donors and multilateral development partners under the SSC. The MEMR unit responsible for international cooperation facilitates coordination and synergies and added value of the project with other international cooperation.
Impact	• The project's focus will lead to reduced GHGs and greater RE and EE investments from both public and private sectors. It is an explicit focus to secure a more attractive market for RE investments. • Indonesia will thus be in a better position to meet the national energy demand in a sustainable way, achieve the 23 % renewable energy goal in 2025 and contribute to its NDC goals, and the achievement of SDG7 and SDG13 targets. • The project will also lay the basis for achieving a longer-term aim to increase ambitions in revisions of Indonesia's NDC.
Sustainability	• As part of the Theory of Change, impact drivers have been identified and will be used pro-actively in project implementation. • Strong emphasis on partner ownership to the project's activities and results, as reflected in the already agreed and signed Consultation Document. • An exit strategy will be formulated by DEA and MEMR in preparation for the mandatory MFA mid-term Review of INDODEPP, which will assess and recommend on the exit of Danish support.

	• Experience from other similar projects and programmes indicates that the chosen TA and capacity delivery model with embedded LTAs is likely to enhance targeting of delivery and effective partner uptake leading to sustainable results.

2.4 Lessons Learned from Previous and ongoing Collaboration under SSC and ESP

Lessons Learned from the Environmental Support Programme

The ESP was an Indonesia-Denmark development collaboration aimed at synergising achievements in economic growth and sustainable development. ESP had three phases (phase 1: 2006-2007, phase 2: 2008-2012, and phase 3: 2013-2018). Both ESP 2 and ESP3 engaged in energy by supporting the implementation of policies related to EE, RE and energy conservation (EC) with a focus on the local government level, and use of experience from pilot projects to strengthen national policies, strategies and climate change planning. Lessons learned showed that demonstration/pilot projects take a long time to establish and that using experience from these projects to inform and strengthen policies and planning is a longer process than a typical project timeframe. At the national level, the ESP2 and 3 supported the establishment of a Clearing House (now called LINTAS) for EE, RE and EC as a one-stop information centre/hub used by government, energy-sector stakeholders and general public. ESP 2 also supported the Online Energy Management Reporting System for energy intensive industries (http://pome.ebtke.esdm.go.id/). INDODEPP will strengthen capacities and systems for more energy efficient buildings and support implementation strategies for EE in industries and power plants, and in so doing build upon and strengthen these existing mechanisms and systems. Furthermore, the ESP lessons learned from setting-up such administrative units and mechanisms emphasized the need for ownership and carefully identified administrative processes to ensure the implementation and use. This consideration will be beneficial for INDODEPP's process of strengthening and/or reviving a one-stop-shop for Independent Power Producers licensing (Outcome 1).

Lessons learned from Strategic Sector Cooperation (SSC)

The current SSC[19] started in 2016 and comprises two energy related projects. The most relevant lessons learned for the INDODEPP are from the SSC in the Energy Sector phase II, which runs during 2019-2021 – and the inspiration for INDODEPP originates primarily from this SSC cooperation. Both SSC and INDODEPP cover the three areas of energy modelling and planning, integration of renewable energy, and energy efficiency. The intention is that INDODEPP will build on the work done by SSC, deepen it, expand the ambition level, introduce new partners and add new areas of focus e.g. tendering processes and support to, energy policy and regulation, coordination across institutions. The linkages between SSC and INDODEPP are illustrated in Annex 11. The budgets and progress between the two programmes will be clearly divided in the one year of overlapping.

Modelling and scenarios are the backbone of the Danish-Indonesian energy cooperation and has been since the first SSC programme started in 2016. Work with NEC and DGE has given DEA in-depth knowledge on how these organizations are structured and how to secure most value from the cooperation. The Indonesia Energy Outlook and regional outlooks are key activities, where DEA and NEC already have a mutual collaboration. A key lesson learned from the current cooperation is that the energy planning process is scattered resulting in different targets, unharmonized approaches and ineffective and inefficient use of data for decision making. By aligning plans across institutions, a stronger platform for discussion of climate ambitions will be achieved and result in a more transparent planning process among the

[19] The Strategic Energy Sector Cooperation Between Indonesia and Denmark. The other energy-related SSC is the Strategic Sector Cooperation on Sustainable Island Initiative (SII) that is focused on two regions, with primary partners being the Provincial Government of West Nusa Tenggara and the Provincial Government of Riau Island and includes partnership with MEMR.

government institutions. Furthermore, as a direct result of the current SSC, high-level decision-makers have requested further cooperation on policy and regulation, thus supporting continued bilateral climate diplomacy vs. SDG 13.

The current SSC has addressed integration of renewable energy with focus on forecasting of variable RE, e.g. weather reports predicting solar production in advance. The lessons learned so far are that the technical assistance for RE integration in the grid is well received by the Indonesian engineers. But as Indonesia is planning to have a larger share of RE in its energy mix, it is crucial to expand the support to other areas such as ensure capacities in system integration not to jeopardize security of supply, support the procurement system for additional renewable power plants through piloting of tenders, as well as support to least cost grid integration strategies and planning. The experience shows that successful integration of RE is key to securing new ambitious NDC targets in Indonesia (SDG 13) and is thus a strong rationale for the focus on RE integration under INDODEPP.

Although the current SSC has been successful in delivering assistance to new building codes in cities and also reducing fuel-consumption in power plants, it is clear that making progress on EE takes time. Therefore, the lessons learned indicate a need to take a new view on a more holistic EE-engagement in Indonesia. While the plans to establish a new Indonesian capital to replace Jakarta as administrative centre are presently on hold due to other priorities necessitated by the Covid-19 crisis, there is a momentum to showcase cost-efficient energy planning and demonstrate the potential for EE (and RE production) in urban areas. With the rapidly increasing energy consumption, there is also a need to strengthen capacities and systems for more energy efficient public and commercial buildings as well as for support to implementation strategies for energy efficiency in industries and power plants. A strengthened energy efficiency strategy will contribute to both SDGs 7 and 13.

It is also noted that the very recently started (2020-2022) Denmark-Indonesia Strategic Sector Cooperation on Sustainable Island Initiative (SII) is intended to contribute in relation to energy, including: 1) Assisting the local authorities in identifying and improving an integration of circular economy, solid waste management and renewable energy in the regulatory and practical framework, enhancing the implementation of provincial policies and action plans for circular economy, waste management and energy; 2) Providing assessments of the potential and pre-feasibility of circular economy, solid waste management and waste-to-energy development on the two islands under both current and improved framework condition; 3) Supporting and promoting the foundation for private sector stakeholders' engagement and funding opportunities for waste-to-energy at Lombok and Riau Islands. The importance of expanding the integration of RE in regional master plans for energy system development (RUEDs) is clear from the SII and focus on RE integration in INDODEPP will thus be complementary with the SII, in terms of working at the national level and in other regions than SII.

An overall important lesson learned from Denmark's long engagement in Indonesia, including the last 4 years' SSC and the previous ESP, is that supporting transformational change takes time. Therefore, INDODEPP is designed for a longer time horizon of 5 years.

It is noted that an evaluation of Danish Strategic Sector Cooperation was undertaken by the MFA and reported in 2020. An Indonesia case study was part of this evaluation. Among its findings was that there was a high level of engagement between the Danish and Indonesian agencies; that Indonesian staff reported a close interaction between partners both formally and informally and that under the Energy SSC project, contacts and networks developed in the ESP3 were expanded. It was found that the SSC for energy performs a valuable role in connecting Danish agencies with Indonesian counterparts and that networks and trust among partners have been developed, as well as changes in mindsets and ways of thinking. It was noted that more than one hundred people from the SSC Energy project participated in DFC trainings. As one respondent in the energy sector put it: *'I used to think renewable energy was dream, but then I went to Denmark and saw that it is possible!'* Moreover, according to the Indonesian partners, Danish

companies and DEA have also learnt more on renewable energy sources in Indonesia. There was no evidence of overlaps with other programmes or projects in Indonesia and there were several examples of synergies achieved in the SSC Energy project. For example, linkages were established with the Partnering for Green Growth (P4G) programme. It was also found that the Embassy and sector counsellor are activity engaged in discussions with other development partners in Indonesia and that there is good coordination with the World Bank and the Asian Development Bank on RE programme planning and policy reform.

2.5 Considerations on Danish Strengths and Interests

Denmark has demonstrated that it is possible to decouple economic growth, GHG emissions and energy consumption, resulting in green growth. Wind energy contributed 47% of the electricity consumption in Denmark in 2019 and Denmark is likely to meet its goal of at least 50% wind in the electricity system by the end of 2020. The Danish energy model has demonstrated the importance of political agreements with broad consensus in parliament, which serve as a basis for setting and achieving ambitious long-term targets. A key feature of the model is also a holistic view based upon an energy agreement as a roadmap for development of energy supply and demand and long-term energy planning including the use of models and scenarios. Regulation and targeted investments in EE, and support for RE is provided through synergies between taxation schemes and policy. Public-private sector cooperation has fostered important innovation and breakthroughs in the Danish energy concepts and -systems and led to public engagement and acceptance, as well as general public support for the energy sector transition. Environmental and energy taxes contribute to a better reflection of the environmental costs of production, use, and disposal in consumer prices on energy. An effective integration and support for renewable energy sources in Denmark combined with a well-functioning open power market with other countries in the region is key to maintaining a very high security of electricity supply closely linked to significant cross border connections. Also important in the model is power generation system flexibility combined with the integration of very high levels of variable RE and advancement of the Levelized Cost of Energy (LCOE) approach; and a broad and integrated one-stop-shop mandate of DEA to regulate the market and deliver on the above features of the Danish model. Denmark has a strong interest in sharing these experiences in a partnership with Indonesia for mutual benefit, which will also contribute to Denmark's interest in achieving global climate goals and meeting SDG targets. The Danish private sector is already engaged in Indonesia, and the large Indonesian market for sustainable energy solutions will be of major interest to the Danish resource base in the future. Denmark's tradition with an active civil society on energy over the recent decades has also been important in achieving the high levels of RE and building on this experience, the Embassy and its Energy Sector Counsellor and DEA will be cognisant of opportunities for engaging civil society in project activities.

2.6 Relation to other relevant Partners and Actors

Many stakeholders and development partners are engaged with Indonesia in climate and energy. Annex 14 summarises relevant examples of support in Indonesia from other bilateral donors and multilateral development agencies in areas related to INDODEPP's focus areas. It is very important to ensure additionality with other relevant projects and the Embassy of Denmark is actively engaged in the relevant coordination fora. And it is particularly important to ensure coordination with multilateral agencies that are supported by Denmark through multilateral cooperation.

Briefly, some of these are mentioned below:

The International Energy Agency (IEA), International Renewable Energy Agency (IRENA) and OECD are engaged in Indonesia in interventions related to long-term energy scenarios and energy policy and or regulation. There is close and regular coordination with these organisations in multilateral fora and at country level. IEA's **Clean Energy Transitions Programme (CETP)**[20], which is supported by

[20] https://www.iea.org/areas-of-work/programmes-and-partnerships/clean-energy-transitions-programme

Denmark, aims to accelerate energy transitions in major emerging economies. Under CETP, the Energy Efficiency for Emerging Economies (E4) Programme supports energy efficiency activities in Indonesia and through the Association of Southeast Asian Nations (ASEAN). IEA plans to continue to support Indonesia, through work on data and indicators, transport sector, buildings and industry.

IRENA works closely with the ASEAN Centre for Energy (ACE) in Jakarta and ASEAN to accelerate renewable energy deployment across the region. Moreover, (also seen as an effort to help mitigate the effects of the Covid-19 pandemic on energy-related issues), IEA cooperates with MEMR and PLN[21] to enhance RE integration and power system operation. IEA with the Clean Energy Ministerial (CEM) was also engaged in a Power System Flexibility Campaign that was co-led by China, Denmark and Germany (2018)[22] in supporting system transformation by increasing flexibility of power plants.

The World Bank (WB) main focus in the Indonesia energy sector is on infrastructure. In addition, the **WB Energy Sector Management Assistance Program (ESMAP)** which is supported by Denmark, providesanalytical and advisory support in Indonesia including on RE integration. This includes support to analyse high RE load scenarios to the Java-Bali power system. As the WB is funding a pumped storage hydropower project on the Cisokan West Java, Indonesia (1040-MW in end 2020)[23], ESMAP's project aims to eliminate system constraints for RE scale-up and increase power capacity in the Java-Bali system. Another significant ESMAP project in solar PV is a first-of-its-kind report funded together with Denmark, on estimating the global potential of floating[24]. solar technologies, which is promising for Indonesia. A large plant named Cirata Floating Solar PV in West Java, Indonesia (145 MW in 2022)is being planned and will soon be installed. PLN's generation expansion plans for most islands presently include new coal power plants (as small at 5MW). ESMAP supports PLN to develop a new approach to RE deployment for these islands (under Indonesia Sustainable Least-cost Electrification (ISLE) in Eastern Islands Project).

The International Institute for Sustainable Development (IISD) is supported by Denmark and works on energy subsidy reform. In Indonesia IISD undertakes research and policy engagement on fossil fuel subsidies and as such engages with a range of policy actors across the public, private sectors and civil society. Recent combined impacts of the Covid-19 pandemic and a drop in global energy prices have hit hard on Indonesia's fossil fuel-based energy sector. While the country has been rolling out stimulus packages, most of these funds have been driven toward public health, social safety nets and economic stimulus. IISD showed there was a window of opportunity to design any subsidies and/or stimulus plans, in a way that supports a transition away from fossil fuels toward a more sustainable economy. The RDE has an IISD contact person for coordination with IISD in Jakarta.

In relation to clean energy's support to economy, the **OECD's** programme Clean Energy Finance and Investment Mobilization (CEFIM) supports governments in creating a robust clean energy finance and investment environment. The Programme covers five countries including Indonesia and is funded by Denmark. The main entry point in Indonesia is MEMR.

The Green Climate Fund (GCF) is supported by Denmark. The GCF National Designated Authority (NDA) in Indonesia is the Ministry of Finance. GCF supports geothermal development in Indonesia and the GCF Country Programme serves as a guideline for both nationally and internationally accredited entities in preparing proposals for their future projects/programmes in Indonesia. Table 2.2 below highlights areas where coordination is particularly critical.

[21] https://www.iea.org/news/indonesia-and-iea-deepen-cooperation-on-electricity-and-renewables-to-advance-energy-transitions
[22] http://www.cleanenergyministerial.org/campaign-clean-energy-ministerial/advanced-power-plant-flexibility
[23] https://www.esmap.org/node/70715
[24] https://www.worldbank.org/en/topic/energy/publication/where-sun-meets-water

Table 2.2 – Coordination with multilateral energy support in Indonesia

Development agency	Focus areas	Day-to-day coordination through
IEA	Integration of variable RE, flexibility in power plants, energy efficiency (CETP)	Sector counsellor at RDE and proposed LTA in PLN
IRENA	Long-term energy scenarios in collaboration with ASEAN Centre of Energy (ACE)	Proposed LTA in DGE and DEA (which has a person who coordinates with IRENA also at country level)
IISD	Fossil Fuel Subsidy Reform (FFSR)	Sector counsellor at RDE
OECD	Improved framework conditions and enabling environment for investments in RE and EE (Clean Energy Finance and Investment Mobilization (CEFIM))	Sector counsellor at RDE/ proposed LTA in PLN
ESMAP (World Bank)	Solar power, geothermal energy, integration of variable RE	Proposed LTA in PLN

It is further noted that the EU is planning a major Indonesia Sustainable Energy Acceleration Programme. The RDE as representative of Denmark as an EU member state is engaged in coordination concerning this new initiative which is still at an early stage of conceptualisation. It is also important to note the presence of civil society organisations in the form of community groups, non-governmental organisations (NGOs), indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations that are important in advocacy and knowledge development related to the clean energy transition – some of these are mentioned in Annex 14 and where relevant these will be engaged, particularly in provincial activities. This will be considered as the INDODEPP workplan is developed during the start-up phase. Contact with local authorities is arranged through NEC and the local authorities is linking to local organizations, civil sociey, universities etc..

3. Presentation of the INDODEPP Project

3.1 Overall Objectives and Outcomes

The overall objectives and outcomes are summarised in the table below:

Table 3.1 – INDODEPP Objectives and Outcomes

Project	**Indonesia-Denmark Energy Partnership Project (INDODEPP)**
Project Objective	Overall – The project has contributed to meeting Indonesia's national energy demand in a more sustainable way; to its NDC goals by reducing GHG-emissions; to SDG7 and SDG13 targets; and more specifically to the achievement of the 23% renewable energy goal in 2025. An enabling environment for sustainable energy in Indonesia as a part of a cost-efficient electricity system with increased security of supply and reduced energy intensity. This will be reached through energy planning and modelling, larger shares of variable renewable energy sources and strong system integration, as well as increased energy efficiency.
Outcome 1 Scenario-based long-term energy plans and regulation	Indonesia has a system of aligned energy plans across partner institutions and selected provinces, with clearly defined review-procedures and based on state-of-the-art long-term energy modelling tools and a regularly adjusted Indonesia specific technology catalogue. The long-term energy plans form the basis for monitoring and setting new political targets for renewable energy and provides a reliable RE pipeline to secure investor confidence and bring down cost of energy from renewable sources. The project will contribute to the creation of a foundation that will lead to an increase in

	Indonesia's reputation as a reliable and ambitious partner within climate-negotiations and for creating an investment environment.
Outcome 2 Integration of renewable energy	Enhancement of national capacities to accelerate the application and integration of renewable energy to support further decarbonization of the power sector: PLN is able to integrate fluctuating renewable energy shares beyond the current share of 10 % in the grids with the highest share. The RE is integrated without curtailment and jeopardizing the security of supply. The integration is secured through handling of technical challenges, e.g. grid flexibility and maintaining security of supply through forecasting and economic effective load-dispatch. Efficient integration of RE contributes to lower the prices of reaching political targets for RE.
Outcome 3 Energy efficiency	Indonesia has an enhanced national strategy for energy efficiency, which reduces the predicted increase in electricity demand so the green energy transition can be achieved in a cost-efficient manner also taking cost savings in generation capacity and grid into consideration. This includes an increased focus on industries and energy efficient buildings, efficiency in power plants and energy efficiency in the new capital.

3.2 Theory of Change, key Assumptions, Impact Drivers, and Risks

The overall theory of change (ToC) is that a peer to peer sharing of the Danish energy model and transition experience will enable Indonesia to more rapidly attain its energy and climate goals and support a decarbonisation of its energy sector and a delinking between energy use and economic growth. The project will support the GoI in the goals of achieving 23 % renewable energy in 2025, increasing energy efficiency and maintaining inclusive economic growth to the benefit of the whole population. It will contribute to SDG 7 (specifically on targets 7.2 and 7.3 on renewable energy and energy efficiency) and SDG 13 by supporting Indonesia in its current NDC targets and work towards more ambitious NDC mitigation targets by providing technical assistance and capacity development of partners to accelerate low carbon energy planning, regulation promoting renewable energy, integration of renewable energy and energy efficiency.

What are the changes the project wants to contribute to?: The project aims to create change in three areas as defined by the outcomes: improved planning and regulation; greater integration of renewable energy and; improved energy efficiency.

- Within planning, the project aims to create the capacity and deepen the practice, appreciation and use of evidence and scenario-based energy planning. This will mean overcoming the current fragmented and inconsistent planning and target setting between institutions and building a critical mass of modelling expertise. Within regulation the main focus will be on improving the environment for private and public sector investment. Thus, there will be a focus on RE auctions and on streamlining procedures through the effective adoption of a one stop shop securing one entry to authorities for developers.
- Within integration of renewable energy, the project aims to contribute to an increase of the RE share in the electricity system by developing capacity, removing barriers and improving the operational systems for integrating renewable energy. It will do this by piloting and developing robust procedures and practices for launching wind power tenders. This will remove some of the barriers to private sector engagement as well as lower costs. The project also aims at improving the level of forecasting and system operation so that optimal use is made of increasing generation of renewable energy and curtailment minimised. Finally, the project aims to develop least cost scenarios that will enable efficient RE investment and integration planning.
- Within improved energy efficiency the project aims to lower the specific use of energy in the building, selected industry and power plants. It will do this by developing capacity for improving energy standards, managing data and developing strategies in key industries and power plants.

How will change happen in the specific context? In concrete terms the expected change will happen through key partners in Indonesia being exposed to the practices in Denmark and then being supported by a range of technical cooperation initiatives to transfer good practice and lessons learnt to the Indonesian context. This will imply a number of study tours, short secondments to Denmark and both short and longer-term inputs by Danish experts in Indonesia. A range of interventions and activities will, based on experience of their use in other cooperation countries and also the ongoing SSC programme(s), be applied in Indonesia. The general approach will be to pilot implementation of new approaches in one or two pilot provinces and then seek to support replication to other provinces.

What is the role of the key partners in the change process? The project is aligned to the policies and strategies and plans of the relevant Indonesian partners. The Indonesian partners will lead on the implementation of these strategies and plans with the support of the project. The implementation of these strategies and plans involve considerable financial and human resources from the partners. At a high level they will also imply the use of political capital requiring high levels of continued commitment. The key partners in Indonesia will participate in study tours, and potentially short secondments, to become familiar with relevant elements of the Danish model. They will internalise the relevant approaches and where possible apply them to their area of mandate with the support of technical advisers from Denmark. At a higher level the Indonesia partners will engage in bilateral climate dialogue with Denmark and also other international actors for mutual learning and engagement in developing responses to energy and climate challenges.

What are the conditions that must be realized before the goal is achieved? The key conditions are that the Indonesia partners continue to find that elements of the Danish model are useful and that these elements can be adjusted and successfully transferred for the Indonesian context. This has already been tested under the ongoing SSC programme(s). The rate of change expected in improving planning and regulation and the integration of RE and adoption of improved EE practices is high. This will draw significantly on the financial and human resources of the Indonesian partners as well as the depth and persistence of the policy commitments to high levels of RE and EE. There are no absolute pre-conditions that have been identified but in many areas the project will need to be accompanied by a shift in current mindset and practice. The approach of the project is to support such shifts through demonstration of the Danish model and through the introduction and exposure to easy to use and convenient planning and operational tools and systems.

Who are the key partners that need to be engaged for this change to happen? The key partners at the national level for outcome 1 are MEMR and under it the DGE, EBTKE and NEC. For outcome 2 the key partner is PLN with the involvement of a variety of other agencies and actors. For outcome 3 the key partner is EBTKE again with the involvement of a variety of other agencies and actors. At provincial level the de-concentrated entities will be engaged as well as provincial actors and local governments.

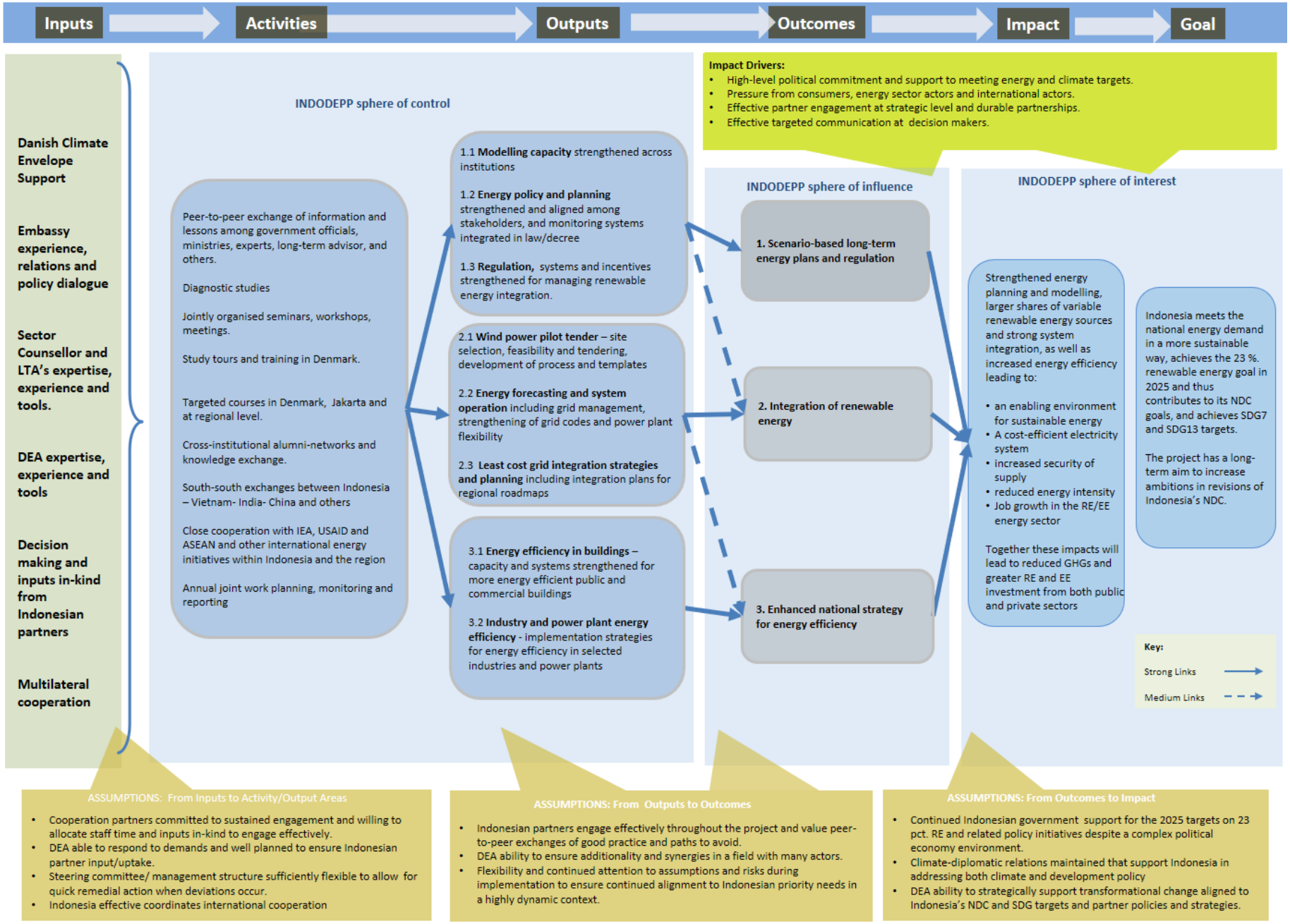
What is within and beyond the influence the key project partners? As illustrated in Figure 3.1 provided there is demand and sufficient levels of commitment by all relevant parties, the activities and outputs are to a large extent within the sphere of control of the project. The outcomes are within the sphere of influence as it is more difficult to ensure that the outputs created will be used and applied e.g. that the modelling capacity will be used to improve reporting and will be used to support improved decision making in practice. The effectiveness of ongoing public sector reforms and political and macro-economic situation will influence the attainment of outcomes and ultimately impacts related to increased RE and EE. These factors and elements of the political economy and influence of vested interests against the project aims are to a large extent beyond the project.

What assumptions are relevant for the change to happen? A key assumption between outcomes and impacts is that Indonesia retains the ambition and commitment to increasing the share of RE in the energy supply and to adhering to the NDC targets. At an institutional level, it is assumed that partners are committed to sustained engagement and willing to allocate staff time and inputs in-kind to engage

effectively with DEA staff and other experts. It is also crucial that Indonesian partners find value in the strategic cooperation with Denmark for informed decision making to achieve Indonesian goals. As a result of recognising this value, all partners are expected to engage effectively throughout the project and benefit from peer-to-peer exchanges of good practice and paths to avoid. It is noted that the main thrust of the programme is to develop capacity in areas where the partner organisations are less experienced and where the Danish organisations are strong or have proven experience to share and transfer. The main areas where this takes place are: scenario planning, integration of renewable energy and energy efficiency approaches. Although there are gaps in knowledge and skills, the Indonesian partners in general have absorption capacity in terms of numbers of staff, their qualifications and experience in the energy sector. The main issue is not the inherent absorption capacity but on whether the programme is framed and communicated in a way that gives the high-level decision makers in Indonesia the confidence and conviction that Denmark and Danish know how is highy appropriate for their situation. A number of high-level meetings have consistently reiterated this confidence, but it will be important to continue to frame and communicate and deliver so that the capacity support is found relevant and made best use of. A range of capacity development strategies will be developmed and employed, as further in chapter 2. At its essence, peer-to-peer on-the-job-training and mentoring will be combined with short courses, study tours, and remote mentoring.

The theory of change is illustrated in figure 3.1 accompanied with explanatory text below:

Figure 3.1 Graphic illustration of the theory of Change


Inputs
Activities
Outputs
Outcomes
Impact
Goal
Danish Climate Envelope Support
Embassy experience, relations and policy dialogue
Sector Counsellor and LTA's expertise, experience and tools.
DEA expertise, experience and tools
Decision making and inputs in-kind from Indonesian partners
Multilateral cooperation
INDODEPP sphere of control
Peer-to-peer exchange of information and lessons among government officials, ministries, experts, long-term advisor, and others.
Diagnostic studies
Jointly organised seminars, workshops, meetings.
Study tours and training in Denmark.
Targeted courses in Denmark, Jakarta and at regional level.
Cross-institutional alumni-networks and knowledge exchange.
South-south exchanges between Indonesia – Vietnam- India- China and others
Close cooperation with IEA, USAID and ASEAN and other international energy initiatives within Indonesia and the region
Annual joint work planning, monitoring and reporting
1.1 Modelling capacity strengthened across institutions
1.2 Energy policy and planning strengthened and aligned among stakeholders, and monitoring systems integrated in law/decree
1.3 Regulation, systems and incentives strengthened for managing renewable energy integration.
2.1 Wind power pilot tender – site selection, feasibility and tendering, development of process and templates
2.2 Energy forecasting and system operation including grid management, strengthening of grid codes and power plant flexibility
2.3 Least cost grid integration strategies and planning including integration plans for regional roadmaps
3.1 Energy efficiency in buildings – capacity and systems strengthened for more energy efficient public and commercial buildings
3.2 Industry and power plant energy efficiency - implementation strategies for energy efficiency in selected industries and power plants
Impact Drivers:
• High-level political commitment and support to meeting energy and climate targets.
• Pressure from consumers, energy sector actors and international actors.
• Effective partner engagement at strategic level and durable partnerships.
• Effective targeted communication at decision makers.
INDODEPP sphere of influence
1. Scenario-based long-term energy plans and regulation
2. Integration of renewable energy
3. Enhanced national strategy for energy efficiency
INDODEPP sphere of interest
Strengthened energy planning and modelling, larger shares of variable renewable energy sources and strong system integration, as well as increased energy efficiency leading to:
• an enabling environment for sustainable energy
• A cost-efficient electricity system
• increased security of supply
• reduced energy intensity
• Job growth in the RE/EE energy sector
Together these impacts will lead to reduced GHGs and greater RE and EE investment from both public and private sectors
Indonesia meets the national energy demand in a more sustainable way, achieves the 23 %. renewable energy goal in 2025 and thus contributes to its NDC goals, and achieves SDG7 and SDG13 targets.
The project has a long-term aim to increase ambitions in revisions of Indonesia's NDC.
Key:
Strong Links
Medium Links
ASSUMPTIONS: From Inputs to Activity/Output Areas
• Cooperation partners committed to sustained engagement and willing to allocate staff time and inputs in-kind to engage effectively.
• DEA able to respond to demands and well planned to ensure Indonesian partner input/uptake.
• Steering committee/ management structure sufficiently flexible to allow for quick remedial action when deviations occur.
• Indonesia effective coordinates international cooperation
ASSUMPTIONS: From Outputs to Outcomes
• Indonesian partners engage effectively throughout the project and value peer-to-peer exchanges of good practice and paths to avoid.
• DEA ability to ensure additionality and synergies in a field with many actors.
• Flexibility and continued attention to assumptions and risks during implementation to ensure continued alignment to Indonesian priority needs in a highly dynamic context.
ASSUMPTIONS: From Outcomes to Impact
• Continued Indonesian government support for the 2025 targets on 23 pct. RE and related policy initiatives despite a complex political economy environment.
• Climate-diplomatic relations maintained that support Indonesia in addressing both climate and development policy
• DEA ability to strategically support transformational change aligned to Indonesia's NDC and SDG targets and partner policies and strategies.

From inputs to activities: The project will, through the Danish climate envelope funding and overall cooperation with Indonesia, provide and make available a range of inputs. This will involve mobilising DEA expertise through both long and short terms technical assistance. External consultants will also be mobilised, as well the involvement of specialist organisations such as Energinet Denmark. Moreover, the RDE and especially the sector counsellor will contribute to the project as will various multi-lateral cooperation efforts some of which are also co-financed by Denmark. High level dialogue will take place through the RDE. Decision making and inputs in kind will be provided by the Indonesia partners cooperating closely on joint workplans.

With a lead taken by DEA and MEMR, these inputs will be mobilised and will engage with and strengthen the capacity of the INDODEPP partner institutions through a range of cooperation mechanisms including: i) information exchange, ii) study tours, iii) diagnostic studies, iv) jointly organised seminars, v) targeted courses in Denmark and Indonesia, vi) fostering cross institutional networks including south-to-south exchange (especially between the countries also being supported by DEA through similar projects and, vii) promoting close cooperation with other complementary international initiatives. The experience from earlier and ongoing DEA cooperation in other countries and from the SSC programme(s) in Indonesia have shown that a combination of these intervention activities has been successful in developing capacity and making changes in the enabling environment.

From activities to outputs and outcomes: The experience from earlier and ongoing DEA cooperation in other countries and from the SSC projects in Indonesia have shown that a combination of the intervention activities outlined above and also expanded on in the strategy section (Chapter 2) have contributed to developing capacity in the energy sector and making changes in the enabling environment. The experience and expertise from the transition of Denmark's energy system within renewable energy and energy efficiency will be mobilised to contribute to the three main outcome areas through delivering on a number of supportive outputs

- Scenario based long-term energy planning and regulation – achieved through outputs related to developing an advanced energy model, a robust long-term planning and a regulatory environment that is conducive to investment in RE/EE. The modelling will provide a better basis for planning and for adjusting planning thus ensuring a more robust investment environment. At the same time improvements and streamlining of the regulation environment will encourage and facilitate greater private and public sector investment by lessening barriers to such investment. Key system changes that are aimed at under this project include developing the basis for RE auctions, improved data management and the enhancement of the one stop shop approach.
- Integration of renewable energy – achieved through outputs related to developing of wind power through effective site selection, feasibility and tendering, enhanced energy forecasting and system operation and least cost integration of renewable energy into the grid. The piloting of the development of a wind power site will support the integration of RE by streamlining the public administration of site selection and tendering. Improving the forecasting and system operation will help PLN to make better use of RE by ensuring for example that thermal power can be ramped up and down to compensate for RE variation as part of a least cost development and integration strategy;
- Enhanced national strategy for energy efficiency – achieved through outputs related to energy efficiency in buildings, a showcase for energy efficiency planning for the new capital city and through energy efficiency in industry and power plants. The contribution to the national strategy will focus on development of EE standards for buildings (both public and private) and will make use of the opportunity afforded by the new capital to showcase high level ambitions in energy efficiency. By developing energy efficiency standards and implementation strategies for selected power plants and selected industries a contribution will be made to the potential for scaling up greater energy efficiency in these areas.

From outcomes to impacts: The outcomes will combine to strengthen the Indonesian partners' energy planning and modelling, the share and integration of variable renewable energy sources as well as increased energy efficiency. In turn these will contribute to:

- Lower greenhouse gas emissions and pollution - arising from a higher share of RE and greater EE generated through an improving enabling environment for sustainable energy that promotes increased investment in RE and EE by public and private sectors.
- Lower electricity prices or reduced public expenditure - arising from a more cost-efficient electricity system
- Increased security of supply – arising from improved planning and forecasting and integration of RE and greater EE.
- Reduced energy intensity and greater energy efficiency – arising from an enhanced national EE strategy
- Job growth in the RE/EE energy sector – arising through new industries and a more attractive investment market

Together these impacts will lead to reduced GHG emissions and greater RE and EE investment from both public and private sectors. Indonesia will thus be in a better position to meet the national energy demand in a sustainable way, achieve the 23 % renewable energy goal in 2025 and thus contribute to its NDC goals, and achieve SDG7 and SDG13 targets. The project will also lay the basis for ambitious revisions of Indonesia's NDC.

Impact drivers and assumptions: A key driver for the project is and will be the continued high-level political commitment and support for energy and climate targets. Pressure from consumers and energy sector actors for clean, reliable and low-cost energy as well as from international actors are among the factors that drive political commitment. Clear communication and demonstration of the advantages of advanced energy policies and capacities will be instrumental in maintaining and ensuring implementation of these commitments.

A key assumption between outcomes and impacts is that Indonesia retains the ambition and commitment to increasing the share of RE in the energy supply and to adhering to the NDC targets. This also implies that policy makers in Indonesia in both power sector and at the highest administrative levels are seeking and ready to adopt changes that promote energy efficiency, demand management and increased generation and more efficient use of renewable energy, leading to low-carbon energy generation. Underlying this assumption is that political economy environment does not deteriorate or create unsurmountable obstacles to the increasing the share of RE, improving EE and adhering to NDC targets. Fossil fuel subsidies for example are politically charged and threaten and complicate the generation and integration of high shares of RE. The energy sector is complex and, like in many countries, there are powerful vested interests that might oppose greater EE and higher shares of RE in the energy mix. It also implies that DEA and its Danish partners are in a position to provide high quality inputs on demand and that close cooperation with other international cooperation efforts is established to minimise overlaps and gaps. Denmark is a small partner, so this theory of change requires continued engagement from GoI in seeing Denmark as a trustworthy partner in the energy-cooperation.

Box 3.2 summarises the assumptions and drivers identified as part of the theory of change.

Box 3.2 Key assumptions and impact drivers

Key Assumptions:

From inputs to activities:

- Cooperation partners committed to sustained engagement and willing to allocate staff time and inputs in-kind to engage effectively.
- DEA is able to respond to demands in a well-planned manner to ensure Indonesian partner input/uptake.
- Steering committee/ management structure sufficiently flexible to allow for quick remedial action when deviations occur.
- Indonesia effectively coordinates international cooperation

From activities to outputs to outcomes:

- Indonesian partners engage effectively throughout the project and value peer-to-peer exchanges of good practice and paths to avoid.
- DEA ability to ensure additionality and synergies in a field with many actors.
- Flexibility and continued attention to assumptions and risks during implementation to ensure continued alignment to Indonesian priority needs in a highly dynamic context.

From outcomes to impact:

- Continued Indonesian government support for the 2025 targets on 23 pct. RE and related policy initiatives despite a complex political economy environment.
- Climate-diplomatic relations maintained that support Indonesia in addressing both climate and development policy
- DEA ability to strategically support transformational change aligned to Indonesia's NDC and SDG targets and partner policies and strategies

Impact drivers:

- High-level political commitment and support to meeting energy and climate targets
- Pressure from consumers, energy sector actors and international actors
- Effective partner engagement at strategic level and durable partnerships.
- Effective targeted communication at decision makers.

The risk management matrix is found in Annex 5. Key contextual risks include decreasing prices on both oil and coal that could severely affect the political economy and lead to pressures for more domestic use of coal in order to conserve jobs in the coal industry, the effects of Covid-19 pandemic, and the political and social tensions that may arise from regional elections in December 2020 and Presidential and parliament (and possibly regional elections) in 2024.

Key programmatic risks include the Covid-19 crisis that could affect project implementation, any changes of priority given to the cooperation from partner organisations, lack of continuity of personnel in key positions in partner organisations (including staff who have benefited from learning opportunities under INDODEPP) and a potential lack of willingness in partner institutions to share available data, which could affect the quality of the technical assistance provided.

Key institutional risks include the risk of duplication of efforts or failures to recognise interfaces and synergies with other initiatives due to many donors and development partners – and if the project fails to deliver its outcomes, this will reflect negatively on DEA, MEMR, RDE, the MFA and MCEU.

Risk mitigation measures are proposed and integrated in project design leaving the residual risks at low-medium levels. The Steering Committee should regularly monitor and discuss risks, and the Mid-term Review should assess and update the risk analysis.

3.3 Choice of Partners

MEMR will be the overall national lead partner for the project and with its affiliated organisations will lead the outcomes under its area of responsibility with the active involvement of other relevant stakeholders. At the provincial level, the stakeholders will be initially focused on one or two pilot provinces. This will then be enlarged to include a less intensive engagement with provinces that seek replication of the approaches. For the project outcome and output areas, the partners chosen are those that have the government mandate for that area of work. There are a wide range of other stakeholders. These have been identified by the Indonesia lead partners and DEA and are shown in Annexes 1 and 2 as well as the table below. Civil society will be approached through regional stakeholders.

Lead partners	Outcomes	Outputs	Involved stakeholders
MEMR (EBTKE/ DGE/NEC)	1 Scenario-based long-term energy plans and regulation	1.1 Modelling capacity 1.2 Energy policy and planning 1.3 Regulation	National stakeholders: DGE, NEC, MEMR Data and Information Center PUSDATIN, DGE, EBTKE, PLN, BAPPENAS, KLHK, Ministry of Public works, Ministry of Finance, Ministry of State Owned Enterprises Regional stakeholders: Provincial Agencies (Dinas ESDM), Regional Planning Agency (BAPPEDA) and regional PLN offices.
PLN	2 Integration of renewable energy	2.1 Wind power pilot tender 2.2 Energy forecasting and system operation 2.3 Least cost grid integration strategies and planning	National stakeholders: NEC, EBTKE, DGE, Regional stakeholders: Provincial Agencies (Dinas ESDM), Regional Planning Agency (BAPPEDA), regional PLN offices.
MEMR/EBTKE	3 Enhanced national strategy for energy efficiency	3.1 Energy efficiency in buildings 3.2 Energy efficiency in industry and power plants	National stakeholders: EBTKE (partner), Ministry of Public Works, Green Building Council, Ministry of Home Affairs Regional stakeholders: Local governments (cities and provinces)

MEMR will lead on Outcomes 1 and 3. MEMR's Directorate General of Electricity (DGE) will take the lead on Outcome 1 (energy planning and regulation) with the close cooperation of NEC and EBTKE (Directorate General of Various New Energy and Renewable Energy). EBTKE (Directorate General of Energy Efficiency & Energy Conservation) will take the lead on Outcome 3 (energy efficiency). PLN will lead on Outcome 2. For all outcomes there will be a wide range of involved partners as shown above. The roles of key institutions are outlined in Annex 2.

3.4 Cross-cutting Concerns

In addition to climate change mitigation, the project will contribute to Indonesia's inclusive green growth through the co-benefits in relation to health, environment, human rights, gender, youth and job creation

associated with a sustainable, low-carbon energy system with better energy security. Air quality has deteriorated in Indonesia. Contributors to poor air quality include the mining, oil, coal and gas industries, as well as vehicle emissions, and forest fires. Available data indicates that South Tangerang, Jakarta, Bekasi, Bogor, Surabaya, Yogyakarta, and Bandung can experience high levels of air pollution. The project aims at decarbonising the electricity sector, which is a major source of GHG emissions and air pollutants, as such it has a huge potential for reduction of GHG emissions and associated air pollution and health costs. As the RE share is increasing, conventional energy technologies and their associated environmental impact and health risks from e.g. air pollution will be reduced. Reduced health risks will benefit most the parts of the population that are not able to prevent them self from exposure of pollutants, cannot afford health care and are without – or have poor social security.

The project is expected to have a positive impact on the adoption of "fuel-free" technologies such as solar, wind and geothermal. Increased use of "fuel-free" technologies, and holistic scenario buildings may decrease the current Indonesian ambitions for using more palm oil in diesel generators and the transport sector. It will be very beneficial to reduce demand for palm oil, since it is difficult to produce even larger amounts of palm oil without harming the threatened tropical rainforest and its unique biodiversity.

While access to affordable, reliable, sustainable and modern energy for all is a Sustainable Development Goal (SDG7), access to renewable energy is not a human right in itself. But given the role of clean and sustainable energy as a broader enabler of human and economic development, it is strongly interconnected with basic rights such as the right to life, food, health, shelter, education, etc. INDODEPP will give attention to taking human rights into account and ensure inclusive, transparent and non-discriminative approach to the cooperation. No rights holders will be excluded from involvement, and where relevant the project will work with Indonesian partners to reach out to civil society and relevant NGOs as part of stakeholder consultations. For example, activities around the wind pilot tender will ensure that a high quality social and environmental impact assessment (ESIA) is conducted. To that effect, DEA technical advisors will familiarise themselves with Indonesian ESIA-related laws and obligations as well as Social and Environmental Safeguards best practices and advise in the recruitment of consultants that would lead ESIA in pilot wind projects, as well as support review of ESIA to ensure that it follows best practices, especially with regard to consultation with local communities, social acceptance of RE technology, respect of rights holders, and non-discriminatory job access. INDODEPP capacity development activities may also include modules on HRBA in its training activities, especially at provincial level. When relevant and timely, DEA may promote and technically support elements of a Strategic Environmental Assessment at policy and programming levels.

The number of women employed in the energy sector in Indonesia is moderate and could be increased. Also, at management-level in the energy sector and the INDODEPP-partner institutions the shares of male employees outnumber females, especially within PLN. One immediate approach for the INDODEPP is to target a gender balance in capacity building activities (including workshops and study trips). The project will monitor the gender balance in capacity development activities and undertake a dialogue with partners and identify remedial factors as relevant if there is an imbalance. The reporting on capacity development activities will be gender disaggregated, and the Steering Committee may discuss potential strategies to address gender issues in the project.

More cost efficient and sustainable energy systems – in supply and demand – offer opportunities for increased productivity of the economy and, through this, better opportunities for private and public sector to promote inclusive and sustainable growth, including job creation. More specifically, IRENA studies (See Annex 1) indicate that greater RE deployment will create more jobs and stimulate technology transfer. These studies demonstrate the potential for creation of 1.3 million jobs in the RE sector in Indonesia by 2030, up from just over 100,000 today. Scaling up the market for RE technologies provides significant opportunities for localising parts of the value chain, such as through local manufacture of solar panels and electric vehicles, with the associated technology transfer having the potential to come with additional

positive effects to the economy. The INDODEPP, through strengthening and enabling environment for the deployment of RE, is therefore expected to contribute to job creation, which may directly and indirectly benefit youth. The engagement of universities in capacity development activities can also help place further emphasis on the job creation aspect, as will engagement with e.g. industry associations, EE professional associations.

3.5 Work Planning, Monitoring and Reporting

General: Annual work plans and budgets will be prepared and presented to the Steering Committee for approval. The work plans and budgets will take into account Indonesian priorities and will record the work done to date and as well as noting what is realistic for the remaining period of the project. Project progress and achievements will be monitored and reported against impact and outcome level indicators aligned with the guiding principles and monitoring guidelines for the Danish Climate Envelope, and as far as possible also aligned with the monitoring and reporting systems of Indonesian partner institutions. Indicators at output level have been identified in the detailed results framework in Annex 3. The project is aligned to the Indonesian targets for RE and in that way, they follow closely and will benefit from Indonesian monitoring of the project objective. The outcome and output indicators are specific to project interventions and by nature tailored to monitoring the actions of the external project rather than being part of the internal Indonesian partner M&E systems. This also allows them to be concrete and highly specific and more easily reflect actions that relate to more than one partner. Where relevant, indicators will be gender disaggregated as the work plans are developed.

Start-up phase. As much of the content project follows from the current SSC engagement, a full inception phase will not be needed. A short 3 month start-up phase will take place for new areas and in particular for Outcome 2 and to allow the further development and detailing of a capacity development strategy (based on the general approach set out in Annex 10) for the project including how to institutionalise capacity development perhaps through the use of universities, internal agency and government human resources and training departments. The start-up phase will also be an opportunity to fine tune the results framework and will be an opportunity to engage with civil society organisations where they are relevant particularly at the regional level to the aims of the project. During the start-up phase the relevance of inclusion of representatives from selected pilot provinces in the steering committee will also be considered. The LTA recruitment will start before the start-up phase to avoid delays as there is a long lead time for recruitment.

Mid-term Review. In accordance with MFA guidelines, the project will be subject to a mandatory Mid-term Review (MTR) managed by the MFA. This MTR is tentatively planned for 2023 but may be moved forward to 2022 if so decided. It will have a mandate to recommend adjustments to project outputs and inputs as relevant, and the MTR will assess the project's exit strategy, which will be explicitly articulated by DEA with MEMR as an input to the MTR. Criteria for successful exit is evidence of update and use of know-how that has been transferred. Criteria for a potential continuation of collaboration would be based on the emergence of new or expanded areas of cooperation building on the success of INDODEPP and offering cost effective use of resources – and availability of funding.

Project management teams. Day-to-day progress on the agreed work programme targets will be followed by the project management teams who will manage the day-to-day implementation of each engagement and report progress towards the results framework at output and outcome levels of this engagement.

Workplans. Workplans should be matched with the partners' annual workplans and capacity development needs. The results framework (Annex 3) outlines a number of activities and areas of potential intervention. These are a menu of possible support areas discussed with the Indonesian partners during the formulation process, but will not necessarily all be done or involve the same intensity of cooperation. It will depend on the needs identified by the partners, the available project resources and what other international

partners are doing. The annual workplan will provide the mechanism to prioritise which activities are done and to sequence them. To ensure that all DEA support will assist partners in achieving their goals, any INDODEPP workplan prepared, should reflect priorities in the partners' annual workplans and reflect DEA specialist availability. The work plans should: identify delivery options that match needs, making use of existing options where possible; articulate how level of ambitions in tasks matches resources available; focus on value-for-money with partners – getting the highest impact with the fewest resources; plan and prioritize resources across the outcomes to make sure they can be focused in the right areas; identify options for cooperation when high level climate diplomacy opportunities emerge and; ensure that capacity development is properly defined and integrated into all activities. Multi-year capacity development strategies and plans will be developed for the key areas of the project and these will help to strategically inform the annual workplans.

Progress reporting to the steering committee. The project management teams will submit progress reports at half-yearly steering committee meetings in accordance with yearly workplans. An annual progress report will be approved by the steering committee annually. The annual report will include an assessment of overall progress in relation to objectives and outcomes and will provide reporting against the results framework as well as against the approved workplan and budget. All reporting should, to the extent possible and when relevant, be disaggregated by gender and forwarded to the DEPP Advisory Group in Copenhagen, which follows the DEPP countries (China, Mexico, South Africa, and Vietnam) and INDEP in India.

In the monitoring towards workplan targets, reporting through the half-yearly progress reports will use a "traffic-light" system, where:

- "green" is on-track – implementation progresses is as scheduled;
- "yellow" is partly on-track, which needs an explanation by the project management team to the steering committee, including actions taken to get back on-track and closer monitoring of progress by the steering committee;
- "red" is off-track, which requires a detailed explanation by the project management teams to the steering committee with recommendations of changes/remedial action to the implementation to get the engagement back on-track. If "red" in two consecutive reporting periods, the steering committee may require a short project management team report as a basis for considering deeper remedial action, including possible reallocation between outputs as deemed relevant.

This system will facilitate the steering committee's role as an accountability mechanism and also facilitate the project management teams' own proactive remedial action. The reporting will a factual description of activities and outputs with the "traffic lights" used as a supplement for easy identification of problem areas.

Impact indicators and the Danish Climate Envelope Core Indicators - The overall objective is "Indonesia meets the national energy demand in a more sustainable way, achieves the 23 %. renewable energy goal in 2025 and thus contributes to its NDC goals and achieves SDG7 targets related to RE and EE and SDG13 targets". The project has a perspective to increase ambitions in revisions of Indonesia's NDC. The project will contribute to emission reductions measured in tons of carbon dioxide equivalent, but this cannot be accurately estimated at the overall project level as impacts of the contribution are impossible to separate from those of many other initiatives in Indonesia. Moreover, impacts are likely to manifest themselves concretely in the longer term, beyond completion of the five-year project. The long-term planning and scenario modelling will be able to dimension CO_2 equivalent reduced and implied capital investment of meeting Indonesia's target of 23 % RE by 2025 and also show the implication of decisions of a policy, institutional and investment nature and thus indicate the total likely emissions reduction and investments by 2025. The degree of the project's contribution will need to be assessed qualitatively with all three outcomes potentially contributing to strengthened awareness and capacity of decision-makers and

experts that will lead to more well-informed decision making contributing to the achievement of the targets set in SDG 7 and SDG 13 and Indonesia's NDC.

4. Management Set-up

The project will be managed by a Steering Committee chaired by Director General EBTKE and the Danish Ambassador to Indonesia, also including the Secretary General of NEC and Director of PLN, Director General of Electricity, as well as expert staff to the MEMR Minister and the Deputy Director from DEA and the sector counsellor from RDE. The Steering Committee will be the forum for the overall strategic dialogue between Indonesia and Denmark on energy cooperation and it will also serve as the steering committee for the SSCs on energy and sustainable islands initiative. During the start-up phase the relevance of inclusion of representatives from selected pilot provinces will be considered. The overall cooperation arrangements are outlined in an agreed memorandum between MEMR and the Embassy of Denmark (see Annex 17). The management set-up has been kept as simple and lean as possible, to ensure an efficient accountability mechanism for progress and results as well as an effective mechanism for giving strategic directions to the project. Therefore, the model agreed for the SSC has been used, and following this established practice, decision making will be by consensus. The Steering Committee will be responsible for:

- Approving annual work plans and related overall resource allocations;
- Monitoring progress against the theory of change and results framework, based on half-yearly progress reports that are systematic, analytic and issue-oriented, identifying deviations from set targets and identifying the underlying causes and whether remedial action is needed;
- Monitoring assumptions for the theory of change, determining if adjustments are needed;
- Monitoring risks, determining whether changes to risk factors are required;
- Monitoring the communication of results.
- Follow up of guidance from the Advisory Group
- Broader dialogue on development in the sector and progress towards meeting Paris commitments

The set-up will also include Project Management Teams with DEA and participation of partner institutions, to manage the day-to-day implementation of the project including preparing material for the Steering Committee. The composition of the project management teams will be agreed between DEA and the lead partner institution and the teams will responsible for:

- Managing and coordinating the implementation of outcome and outputs under their responsibility;
- Monitoring against the result frame indicators the outcome and outputs under their responsibility;
- Preparing reports every six months and annual reports, workplans and budget of the outcomes and outputs under their responsibility;
- Followi-up on the advice and guidance provided by the steering committee.

Two LTAs are planned as part of the project's support to MEMR and PLN. The outline job descriptions are given in an annex to the Consultation Document (Annex 17). The main role of the LTAs will be to provide technical inputs as well as coordinate the inputs of short-term experts. The LTAs will ensure that there is a continuous communication between DEA and its partners so that the cooperation can be adjusted and fine-tuned to the needs. The LTAs will take a special responsibility for monitoring the outcomes and outputs and especially the progress in capacity development.

DEA will be responsible for financial management of the project. The Indonesian contributions will all be provided in-kind. As noted earlier, the project management teams will be responsible for drafting annual workplans to be approved by the steering committee. Implementation will be the joint responsibility of the partners and DEA as specified in the work plans.

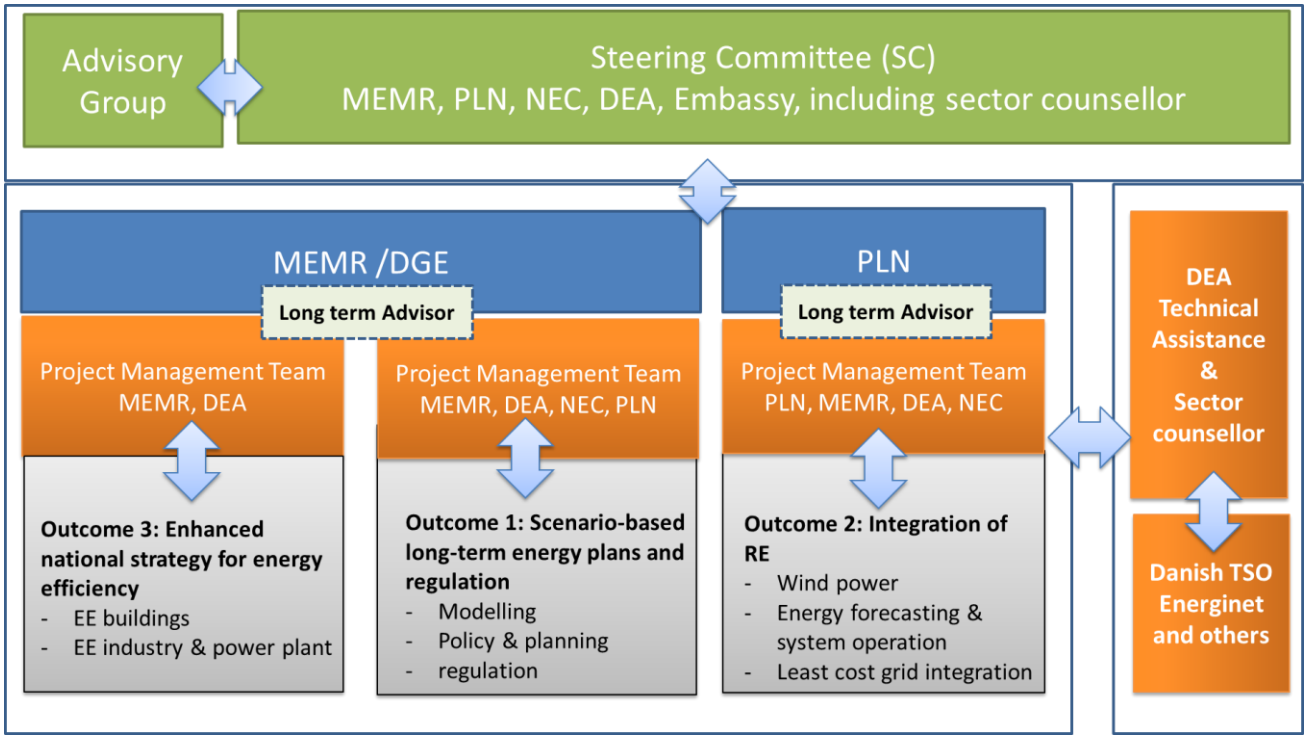
Box 4.1 Roles of the sector counsellor and project support staff at the embassy

- Act as the link to the project's high-level partners in ministries and other organisations
- Be a part of the professional advisor team in the project together with Danish Energy Agency, Long Term Advisors and local partner organisations.
- Participate in the steering committee (sector counsellor) and the overall coordination of the project
- Play important role in ensuring high level communication and fostering climate and economic diplomacy.
- Contribute to the general climate diplomatic dialogue related to the bilateral relations between Denmark and Indonesia on SDG7, SDG13, NDC-targets, climate ambitions.
- Ensure that this project and the other support provided by Denmark through multi-lateral channels is well coordinated.
- Keep close dialogue with other donors on energy and climate cooperation present in Indonesia and aim for alignment
- Facilitate and contribute to other partners' roundtables, high-level policy dialogues, etc.
- Provide technical inputs where relevant
- Be a link between the project and the embassy's commercial activities (sector counsellor)
- Support DEA on the coordination and development of good operational working relations with Indonesian partners.
- Contribute to putting the advice by LTAs and DEA experts into the appropriate political Indonesian context

The overall communication objective for the project is to increase awareness among decision makers and the broader public that a green transition of an energy sector is possible without harming security of supply or leading to a huge cost-increase of energy. As DEA is engaged in extensive energy partnership programmes in countries like China, India, South Africa, Mexico and Vietnam, South-South knowledge sharing on low-carbon development across partner countries will be relevant as a part of the results communication. This will be mostly done remotely through sharing information but could also take place during training visits in Denmark where these involve participants from more than one country.

INDODEPP will be included in the current DEPP Advisory Group in Copenhagen which has high-level representation from MFA, MCEU, and DEA. The Advisory Group will discuss project progress and will ensure cross-exchanges of experience and good practice from/with other bilateral cooperation. In addition, the Advisory Group will ensure that efforts are made to maximise synergies with Danish multilateral cooperation on climate change and sustainable energy including related financing issues, by leveraging Danish relationships with multilateral partners and i.e. promoting the use of knowledge products developed by multilateral partners. DEA will continue to act as secretary to the Advisory Group and meetings will be held on a half yearly basis.

Figure 4.1 Management organisation overview



5. Inputs, Budget, and Financial Management

The total budget for the 5-year project is DKK 60 million sourced from the Danish Climate Envelope 2020 (DKK 37.5 million) and 2021 (DKK 22.5 million.). The budget at outcome and output level is given in Annex 4. Two embedded long-term advisors will be budgeted[25] for a four and half year duration. In addition, a replacement of the sector counsellor from mid-2022 when the current advisor's contract expires will be financed (separately) by the MFA (dependent on available fiancial resources) for the entire period of the new project until 2025/26).

Other activities are the DEA and Energinet inputs and inputs by external international and Indonesian consultants procured through DEA. Funds will not be channelled through Indonesian partner systems. In line with Danida AMG provisions, an unallocated reserve and contingencies of approximately 10% is set planned for new and additional activities as well as unforeseen expenses and shortfalls on other budget lines. The rules and procedures for use of unallocated and contingency funds will follow the AMG guidelines ("January 2018 guidelines for programmes and project"). INDODEPP has no fund transfer to partner countries and hence, anti-corruption measures in the partner countries are focused on the process of tendering, award, or execution of contracts with local consultants. In this regard attention is given to detecting that no offer, payment, consideration or benefit of any kind, which could be regarded as an illegal or corrupt practice, are made, promised, sought or accepted - neither directly nor indirectly - as an inducement or reward in relation to activities funded under INDODEPP, Any such practice will be grounds for the immediate cancellation of the engagement or parts of it, and for such additional action, civil and/or criminal, as may be appropriate. Similarly, the same measures shall be exercised towards DEA in any tendering, award, or execution of contracts with local and international consultants. An outline budget at outcome level is shown in table 5.1 below:

[25] The standard MFA planning figures for long-term advisors are be used in the formulation. The long-term advisors will not be employed by partner ministries but by the MFA as Danida advisor.

Table 5.1 Budget at outcome level

Budget by year (mDKK)	2021	2022	2023	2024	2025	Total	%
Outcome 1	2.2	2.8	2.8	2.8	2.8	**13.5**	23%
Outcome 2	2.6	3.1	2.5	2.5	2.5	**13.2**	22%
Outcome 3	1.8	2.3	2.2	2.2	2.2	**10.8**	18%
Indo-DEPP Programme Management	0.5	0.5	0.5	0.5	0.5	**2.4**	4%
Long term advisers	1.8	2.8	2.8	2.8	2.8	**13.0**	22%
Analysis and review	0.0	0.0	1.0	0.0	0.0	**1.0**	2%
Contingencies	1.0	1.0	1.0	1.0	1.0	**5.0**	8%
Unallocated	0.1	0.2	0.2	0.2	0.3	**1.0**	2%
Total	10.0	12.8	13.1	12.1	12.2	**60.0**	100%

DEA will be responsible for the organisation and timely delivery of technical assistance inputs provided by DEA staff and Energinet and external consultants to activities guided by demands and priorities as defined in the annual work plans. Each major TA input will be defined in specific TOR[26]. DEA has appointed a responsible country coordinator based in Copenhagen, who will serve as the DEA contact person for all matters related to the project. An implementation manual for DEA cooperation has been developed for the DEPP II programme (January 2018) and is subject to periodic adjustment which will bring it up to date with the DEPPIII and possibly also with a section to cover other cooperation countries outside DEPPIII. One of the most immediate changes that will be made will be the project response to Covid-19 and how this will change elements in the capacity development strategy and balance between time with partners. The arrangements described in this project document follow to a large extent the principles and current practice as outlined in that manual (dealing among others with topics such as the ratio of home and field work as well as the procedures for applying and making use of unallocated funds). The project will develop an implementation manual for the cooperation in Indonesia (or contribute to the overall updated DEA manual for all DEPP programmed and projects) as soon as possible after start-up.

[26] Each workstream and within that each assignment should have a TOR for consultant and experts inputs which should specify the title of each assignment; the background and objectives and how the assignment relates to the work plan; the reference to the relevant Indonesian partner national strategy/action plan/ministerial work plan; the purpose, expected results, deliverables, scope of work and quality assurance for the assignment; the skills and experience required for each international and Indonesian consultant; the time input required by each consultant; identify the DEA task manager to whom the consultants are accountable; identify the key Indonesian partner staffing and capacity i.e. the partners with whom the consultants/experts need to work closely; specify local travel, events, and any expenses for which the consultants will be responsible; and set out a brief process action plan for follow-up from the assignment.

Annexes

Annex 1: Context Analysis

Annex 2: Partners

Annex 3: Results Framework at Outcome and Output Levels

Annex 4: Budget Details at Output Level

Annex 5: Risk Management Matrix

Annex 6: List of supplementary materials

Annex 7: Plan for communication of Results

Annex 8: Process Action Plan

Annex 9: Summary of Recommendations of the Appraisal

Annex 10: Approach to Capacity Development

Annex 11: Alignment between the SSC and INDODEPP

Annex 12: Consultation Document

Annex 13: List of key Persons Interviewed during the Formulation Process

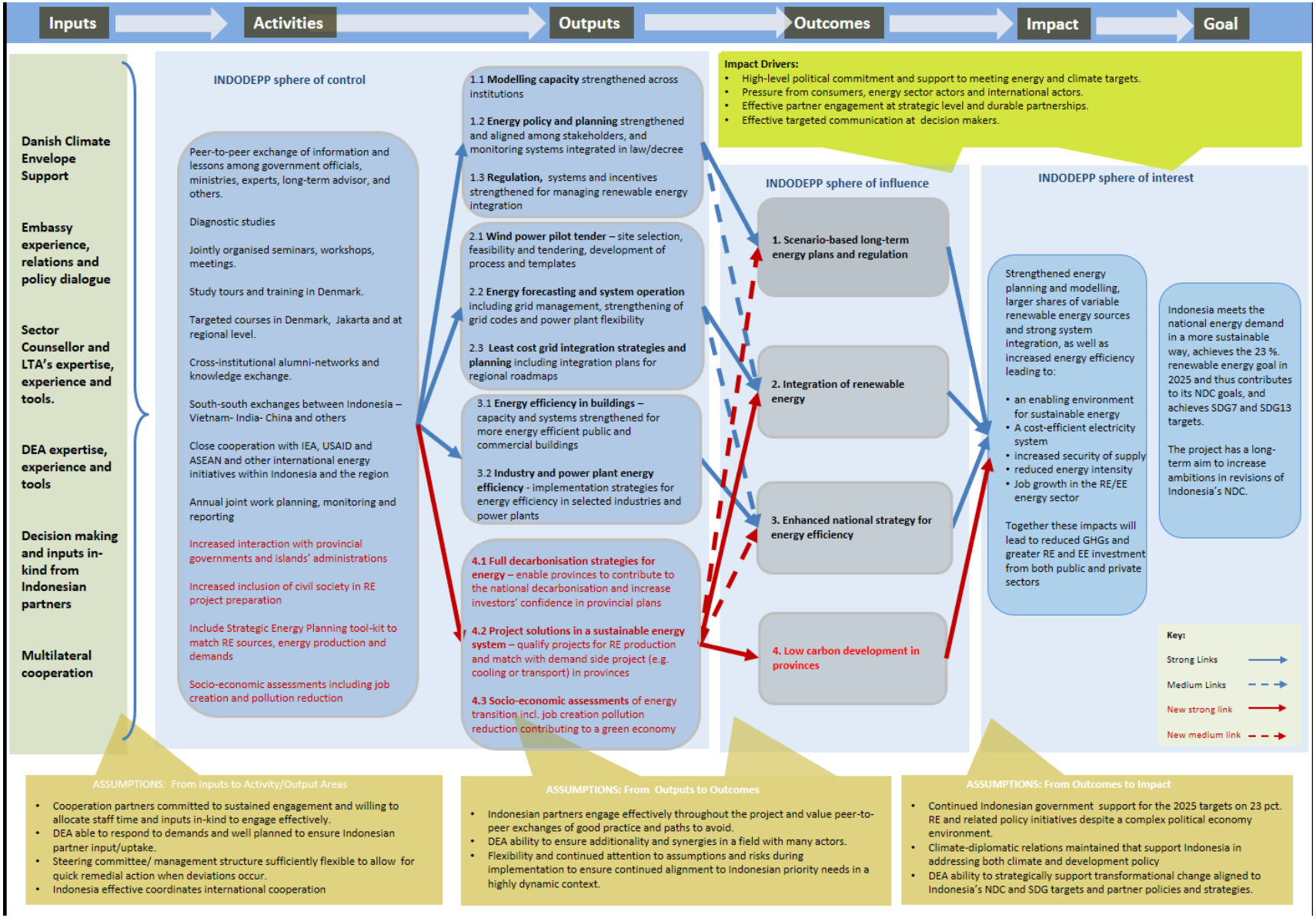
Annex 14: Relevant Key Initiatives Supported by Selected Other Development Partners

Annex 15: Responses to the Danida Programme Committee Conclusions

Annex 16: MoU between Indonesia and Denmark

Annex 17: Memorandum of meeting with MEMR, Biro KLIK

Annex 2: INDODEPP Updated ToC



Annex 3: Tentative activity-list for new outputs

Output 4.1: Full decarbonisation strategies for energy

- Resource mapping of RE resources and energy needs, including export or alternate usage of "surplus" RE to improve utilization of RE.
- Power system modelling and optimisation to decrease costs when increasing the share of RE.
- Modelling of supply and demand-side for electricity, cooling, cooking, transport, etc. to secure sustainable energy solutions.
- Making long-term scenarios for achieving full decarbonisation of province earlier or in pace with national decarbonisation targets to improve policy decisions.
- Capacity development/training of local civil servants (courses in energy planning and modelling).
- Supporting local decision-makers in converting scenarios into strategies and policies to attract investments.

Output 4.2: Project solutions in a sustainable energy system

- Making consolidated and customized catalogue (with inspiration from the Danish 'Virkemiddelkatalog') for each province/island for energy production solutions and demand-side projects based on local conditions.
- Making local customized pre-feasibility studies of selected RE electricity production projects.
- Making local customized pre-feasibility studies for selected energy demand; which may be energy efficient cooling, alternate energy sources for cooking or different fuel/transport solutions e.g. charging hubs for electric two wheelers.
- Identifying projects with short and medium term potential in the province/island; making a short-list for both supply-side and demand-side projects.
- Investigating energy project finance options through international organisations and/or Danish financial institutions and create guidelines/catalogue of requirements and project options.
- Involving the private sector, as knowledge from developers may be included in pre-feasibility studies and results of pre-feasibility studies can be presented for selected business fora. This involvement should happen as early as possible with due respect to the integrity of the neutral energy planning approach, which focus on local resources before selecting technologies.

Output 4.3: Socio-economic assessments

- Socio-economic assessments of the de-carbonisation scenarios in output 4.1.

- Validation of external benefits of the identified projects in output 4.2. The socio-economic parameters for the planning level are applied to socio-economic assessments for the potential projects.
- Cooperation with international organisations such as IRENA and GGGI about local job creation effects etc.
- Cooperation with Bornholm, Samsø and other Danish state-of-the-art municipalities on local ownership and lessons learned from green transition to showcase specific examples. Study trips to Denmark included in the activity.
- Workshops with NGO's and other civil society to present findings of socio-economic analysis and to create awareness of the green transition and its importance. This will contribute to public acceptance of RE projects.

Annex 4: New total INDODEPP budget

Outcome	Output	Outline Budget (mDKK)								% within each outcome
		TA			Long term Advisers	Analysis and reviews	Totals		Totals %	
		DEA	Workshops, study tours, etc.	Consultants						
1 Scenario-based long-term energy plans and regulation	1.1 Modelling capacity	2.41	0.30	1.40	2.10		6.22	19.81	26%	31%
	1.2 Energy policy and planning	3.19	0.30	1.40	2.10		7.00			35%
	1.3 Regulation	3.19	0.30	1.00	2.10		6.60			33%
2 Integration of renewable energy	2.1 Wind power pilot tender	2.20	0.30	2.20	2.10		6.80	19.52	26%	35%
	2.2 Energy forecasting and system operation	2.41	0.30	1.90	2.10		6.72			34%
	2.3 Least cost grid integration strategies and planning	2.20	0.30	1.40	2.10		6.00			31%
3 Enhanced national strategy for energy efficiency	3.1 Energy efficiency in buildings	2.41	0.30	1.03			3.75	10.82	14%	35%
	3.2 Industry and power plant energy efficiency	3.37	0.30	3.40			7.07			65%
4 Low carbon development in islands and provinces	4.1 Full decarbonisation strategies	1.63	0.20	2.10			3.93	11.71	16%	34%
	4.2 Project solutions in a sustainable energy system	1.56	0.20	2.10			3.86			33%
	4.3 Socioeconomic analysis	1.91	0.20	1.80			3.91			33%
Cross cutting	Programme management	2.45	0.00	0.00			2.45	2.45	3%	
	Recruitment costs				0.40		0.40	0.40	1%	
	Reviews					1.00	1.00	1.00	1%	
	Contingencies						0.00	0.00	0%	
	Unallocated funds						9.30	9.30	12%	
Total		**28.94**	**3.04**	**19.73**	**13.00**	**1.00**	**75.00**	75.00	100%	

Budget for the project

Budget by year (mDKK)	2021	2022	2023	2024	2025	Total	%
DEA Staff resources	0.0	0.6	1.3	1.3	1.3	**4.4**	29%
DEA travel, hotel, per diem	0.0	0.1	0.2	0.2	0.2	**0,7**	5%
Consultants	0.0	1.0	1.7	1.5	1.8	**6.0**	40%
Workshops, study tours etc.	0.0	0.0	0.2	0.2	0.2	**0,6**	4%
Unallocated	0.0	0.0	1.1	1.1	1.1	**3,3**	22%
Total	**0.0**	**1.6**	**4.5**	**4.3**	**4.6**	**15.0**	100%

New total budget (INDODEPP+project):

Budget by year (mDKK)	2021	2022	2023	2024	2025	Total	%
Outcome 1	2.2	2.8	2.8	2.8	2.8	**13.5**	18%
Outcome 2	2.6	3.1	2.5	2.5	2.5	**13.2**	18%
Outcome 3	1.8	2.3	2.2	2.2	2.2	**10.8**	14%
Outcome 4	0.0	1.6	3.4	3.2	3.5	**11.7**	16%
Indo-DEPP Programme Management	0.5	0.5	0.5	0.5	0.5	**2.4**	3%
Long term advisers	1.8	2.8	2.8	2.8	2.8	**13.0**	17%
Analysis and review	0.0	0.0	1.0	0.0	0.0	**1.0**	1%
Contingencies	0.0	0.0	0.0	0.0	0.0	**0,0**	0%
Unallocated	0.0	0.0	3.1	3.1	3.1	**9.3**	12%
Total	8.9	13.2	18.3	17.1	17.4	**75.0**	100%

Budget details and explanations:

Budget by year (mDKK)	2021	2022	2023	2024	2025	Total	%	
DEA Staff resources	3.4	4.9	5.6	5.6	5.6	**25.1**	33%	1

DEA travel, hotel, per diem	0.5	0.8	0.9	0.9	0.9	**3.9**	5%	2
Consultants	2.6	4.3	4.3	4.1	4.4	**19.7**	26%	3
Workshops, study tours etc.	0.5	0.5	0.7	0.7	0.7	**3.0**	4%	4
Long term advisers	1.8	2.8	2.8	2.8	2.8	**13.0**	17%	5
Analysis and review	0.0	0.0	1.0	0.0	0.0	**1.0**	1%	6
Contingencies	0.0	0.0	0.0	0.0	0.0	**0,0**	0%	7
Unallocated	0.0	0.0	3.1	3.1	3.1	**9.3**	12%	8
Total	**8.9**	**13.2**	**18.3**	**17.1**	**17.4**	**75.0**	100%	

	Notes:
1	In accordance with expected use on outputs
2	Estimated costs 'Travel expenses' based on experience from former alike projects
3	In accordance with expected use on outputs
4	Based on experience from study tour and workshop costs in former SSC programme. Workshops and study tours is expected to go across outputs and therefore combine the budgets in relevant matter. 2 study tours is expected per year and 3 local workshops a year. Some tasks will be handled by consultants and therefore be included in the consultant budget.
5	Based on costs from former DEPP programmes
6	Price for one MTR
7	The outputs cover all general areas of activities in the programme. This is a buffer for output-activities their might show to have a greater request or unforeseen expenses not expected
8	Unallocated in order to be flexible across the program doing its 5 year period.

Annex 5: Risk management matrix for INDODEPP including this project

Contextual risks[27]:

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
The Covid-19 pandemic causes economic crisis, changes of national focus and potentially political and social tensions	likely	medium	The project is designed to be flexible, to adjust the activities annually aligned with partners' annual plans while keeping the outcome indicators. The activities are to be planned based on close monitoring of situation.	medium	The negative impact of the pandemic until mid-2021 is higher than anticipated and the recovery is not possible to forecast. This can impact the available resources of the partners to be allocated to the project as well as the focus in achieving NDC and RE targets.
COVID-19 restrictions could limit the ability to travel affecting the partnership and especially making new partner engagements difficult. I can also affect the duration of the project.	likely	high	Use of video conference and local consultants makes it possible to continue. Prolonged travel restrictions could still lead to a prolonged project.	medium	The current cooperation have shown that projects can continue while more time consuming. It has also shown that new partnerships is hard to develop.
Vested interests in the political economy including the coal and palm oil industry can work against the green energy transition	likely	high	The INDODEPP project design has taken into account these interests and described in the context analysis and INDODEPP is a partnership with those government institutions that have the mandate and the power to regulate the electricity sector	medium	The political economy in the sector, as always, has its drivers and opponents of transformational change

[27] This category covers the range of potential adverse outcomes that may arise in a particular context, including the risk of harm beyond the immediate context or the country's borders and may include governance failure (e.g. the failure of effective public financial management or law enforcement); competition for resources; natural hazards; and pre-existing socio-political tensions. (Danida Guideline to Risk Matrix 2018).

Presidential and parliament (and possibly regional elections) in 2024 could cause political and social tensions	likely	high	The project is designed to ensure that important indicators to be achieved, or at least secured by 2023. The project is flexible to work with provinces where governor or mayor is prioritizing the cooperation.	medium	Since the current president is in his second term, he cannot run for election in 2024. New government and new composition in the parliament may introduce new policies after 2024.
Government subsidies and internal financial interests and perverse incentives, as well as PLN's economic viability and mandate of supplying cheap electricity can work against the green energy transition.	likely	high	PLN has made a clear commitment to work as a partner in INDODEPP and support its RE and EE focus	medium	

Programmatic Risks[28]:

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Any changes of priority given to the cooperation from partner organisations	Unlikely	Major	Implementation Agreement signed with the partner to ensure that the project is registered under MoF until 2025. Thus, it can be used as reference for new officials of partners.	Minor	Changing of the government after 2024 elections will change the minister and officials which could change focus.
Lack of willingness to share the available data can affect the quality of the technical assistance provided.	Likely	Major	To put contributions of each party in the Implementation Agreement, including obligation to share data and information with all relevant partners,	Medium	.
Limited absorption capacity and lack of staff retention in key positions across partners institutions	Likely	Medium	The DEA will ensure stronger commitment from partner organisations to let participants in courses use their learning in their job. Strengthen alumni-network across institutions.	Minor	There have been examples of participants in modelling courses having been moved to other tasks than modelling in their organisations.

Institutional risks[29]:

[28] This category covers include two kinds of risk: (1) the potential for a programme to fail to achieve its objectives; and (2) the potential for the programme to cause harm in the external environment. With regard to (1), the risk factors for programme failure include many of the contextual risks outlined above, as well as institutional and political factors. But there are many other reasons for potential programme failure, including inadequate understanding of the context or flawed assessment of what needs to be done; management and operational failures; and failures of planning and co-ordination. Risk is also associated with new or innovative programme approaches (although there may also be risk in failing to innovate). (Danida Guideline to Risk Matrix 2018). The categorisation of likelihood, impacts, and residual risk is also consistent with Danida guidelines

[29] This category includes "internal" risk from the perspective of the donor or its implementing partners. It includes the range of ways in which an organisation and its staff or stakeholders may be adversely affected by interventions, e.g. damage to a donor's reputation if it fails to achieve its objectives, or from financial/fiduciary failure (Danida Guideline to Risk Matrix, 2018).

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
The project could duplicate existing activities and/or fails to recognise interfaces and synergies with other initiatives due to many donor activities in the sector.	Likely	Major	Careful identification of other relevant bilateral donor and multilateral development partners support. Denmark participate active in EU's and UKs COP26 donor-coordination within energy and environment and coordinates actively with other non-EU donors.	Medium	The only partner in Indonesia, which have almost same approach for energy is IEA, with whom Denmark coordinate directly.
The project could fail to deliver its outcomes, which will reflect negatively on DEA, MEMR, and the MFA.	Unlikely	Major	The theory of change and results framework indicators will be designed with realistic and measurable targets.	Minor	This project is strategic and high-profiled.

Annex 6: Project Action Plan (PAP)

Process Action Plan for additional support under INDODEPP

Step	Activity	Date
1	Kick-off meeting for the formulation between MFA GDK and ELK, RDE in Jakarta, MCEU and DEA	13-aug
2	Ongoing formulation and dialogue with partners	Ultimo august - medio September
3	Submission of document to the Danida Programme Committee and as well as desk-appraisal	14-sep
4	Meeting in Danida Programme Committee	04-okt
5	End of desk appraisal	01-nov
6	Submission of documents to UPR	08-nov
7	Meeting in UPR (TBC)	25-nov
8	Approval by the Minister (TBC)	dec-21
9	Local partner selection	First half of 2022
10	Approval by partners	September 2022
11	Start of project implementation	Second half of 2022
11	Mid-term Review (MTR) managed by the MFA	2023

Annex 7: Appraisal Recommendations

In this Annex the Appraisal overall conclusion and recommendations and the follow-up is summarised:

Three sets of recommendations are given:

1. General recommendations of the Programme Committee
2. Recommendations to the DEPP III program document
3. Recommendations to the INDODEPP project document.

1. General recommendation of the Programme Committee

Recommendation by the Programme Committee	Follow-up
Recommendation 1 The PC reiterated the **need for an update** of the PD's with a particular emphasis on handling of the risks created by the Covid-pandemic, and on including specific targeted activities for Gender and HR in accordance with the Danida Guidelines.	The recommendation concerning the risk of the Covid-pandemic has been addressed in the Risk Analysis. The criteria for unallocated funds allows for new activities in support of e.g civil society consultation and analysis of HR and gender specific issues related to project implementation. One example presented in the project document is the possible support of the presidential climate Commission in South Africa. The project supports green transition of the energy sector which has co-benefits in terms of health, environment and gender.
Recommendation 2 In relation to the update of the PD's the PC **recommended** to 're-visit' the original PD's in order to seek answers to the strategic questions and develop the holistic Doing Development Differently approach to capture synergies internally to Danish bilateral and Danish Multilateral engagements.	The recommendation concerning Doing Development Differently has been addressed as crosscutting feature in the programme document. Doing Development Differently is supported by bringing multiple Danish instruments in play in support of the overall objective of the DEPP III programme. Besides the core bilateral engagement and technical assistance, the programme bridges to financial institutions, multilateral development organisations, NGOs and civil society as well as the Danish trade council.

2. Recommendations to DEPP III programme document:

Title of project support	**Enhanced engagement under the Danish Energy Partnership Programme III (2021-25)**
File number:	**F2: 2020-17097**
Appraisal report date:	**22nd October 2021 (draft)**
Council for Development Policy meeting date:	
Summary of possible recommendations not followed:	
The Appraisal is positive and the additional support to DEPP III is recommended for approval subject to consideration of the recommendations listed below. The proposed additional support is in line with **the Danish Government's Climate Act and the SDG priorities** as set out in the 'The World We Share' strategy for development cooperation. The Appraisal notes that the proposed additional support was conceived in close cooperation existing **well-placed partners** in the three concerned countries. Further, the additional activities were discussed and agreed with a view to go beyond the already planned capacity building activities and enter into activities that are more concrete and closer to producing results. The Appraisal **overall finds** the draft PD well written and the additional support is well argued. The Appraisal notes that the additional support follows and is closely tied to the DEPP III project activities already under preparation and implementation based on the October 2020 approval by UPR. In addition to the recommendations of the Programme Committee, see Annex 3, the Appraisal recommendations in relation to the finalisation of the PD for DEPP III are listed specifically below.	
Recommendations by the appraisal	**Follow up by the Representation**
Context and Partners:	
Recommendation 1: • South Africa: Embassy to engage in SA WG in order to promote DEPP III and engage with potential investors and developers (also from the Denmark). The TOC to be updated with a view to include the cause-effect of actively engaging in promotion and development of wind projects in SA based on the WASA project. • Vietnam: The Embassy to facilitate establishment of partnership linkages from	The recommendation has been adopted. The embassy with support from DEPP III will be engaged in the SA WG to promote findings of DEPP III towards financial institutions as well as donor coordination. The embassy will also engage potential investors and developers. The ToC has been updated accordingly. The recommendation has been adopted. The embassy and MOIT with support from the overall DEPP III programme will seek partnership

the DEPP III energy audit activities towards developers and investors seeking to establish pilot and demonstration projects to develop a market for green technology projects to be replicated throughout the concerned sectors. The Embassy to also facilitate with donor financed facilities to subsidize/finance new (green) industrial energy projects to reduce emission of GHGs.The TOC should be updated to include the cause-effect of actively engaging in promoting pilot and demonstration projects feasible to be replicated throughout the concerned sectors.	linkages with financial institutions, in particular the World Bank's Vietnam Energy Efficiency for Industrial Enterprises, for further pilot project development. With support from the DEPP III programme the embassy will be engaged in donor coordination. The ToC has been updated according to the recommendation.
• China: The proposed Centre of Excellence for offshore wind should be a pilot activity open for partners in the resource base with a view to promoting offshore wind development projects in China. The Centre of Excellence should be reviewed mid-term in order to assess whether the partnerships should be focused and continued or phased out. The TOC should be updated to include the cause-effect of actively engaging the Centre of Excellence in promoting pilot and demonstration projects feasible to be replicated throughout the offshore wind sector in China.	It has been decided not to include the Off Shore Wind activities in China in the project.
Strategic Considerations and Justification	
Recommendation 2: • South Africa: The Embassy and DEPP III establish links to relevant governing councils of multilateral facilities promoting investments in green transition in South Africa in order to create momemtum for the DDD holistic approaches. The ToC should be adsjuted to include the causal link from DEPP III through the multilaterals towards generation of investment activities with real impact on transition towards green technologies and reduction of GHG emissions.	The recommendation has been adopted. The embassy and DEPP III will establish links to the governing councils of multilateral financial facilities (in particular the AfDB and the Just Transition Partnership) promoting investments in green transition in South Africa. The ToC has been updated according to the recommendation.

• Vietnam: The Embassy engages in establishment of linkages in Vietnam to existing and upcoming donor financed facilities to subsidize pilot and demonstration projects identified from the ernergy audits for new (green) energy to industries to reduce emission of GHGs. The TOC should be updated to include the cause-effect of actively engaging in investment facilities promoting pilot and demonstration projects feasible to be replicated throughout the concerned sectors. • China: The Centre of Excellence to be structured in such a way that Danish developers and investment funds (Danish, Chinese of International) are facilitated in regard to engaging with development of investment partnerships for offshore wind projects in China. As such, The Theory of Change should be updated to include the potential impact of the Centre of Excellence engaging and facilitation investment funds for offshore wind projects in relation to energy transformation. • • China. The appraisal **recommends** a review of the Centre of Excellence, as a pilot project, as part of the Mid-term-review of DEPP III. The review should also assess the scope of the Centre and the continued relevance in relation to facilitation of development of investment partnerships in the offshore wind sector in China.	The recommendation has been adopted. MOIT, the embassy and wider DEPP III programme will establish linkages to donor finance institutions (in particular the World Bank) to bridge between the energy audits and further project development. The ToC has been updated according to the recommendation. It has been decided not to include the Off Shore Wind activities in China in the project.
Results Framework updated	
Recommendation 3: To provide the necessary flexibility to the projects to respond to emerging risks and to pursue new opportunities during implementation. The principles for application of the **adaptive management approach** should be clearly described in the PD, and in principle the procedures should be in place to adjust the results framework every time a change in approach, objectives, outcomes, or outputs are approved.	The recommendation has been adopted. The adaptive management approach is described under Management and reporting

Risk Management Approach	
Recommendation 4: The adaptive management approach should also include monitoring of risks and procedures for an adaptive risk management approach as a minimum for the risks listed for the additional activities in the three countries. The procedures should be described in terms of likelihood and impact in order to be aligned with the existing risk matrix, and the adaptive procedures should be included in the risk matrix.	The recommendation has been adopted. The adaptive management approach to monitoring risks and procedures is described under Management and reporting as well as Risk analysis.
Anti-corruption Measures	
Recommendation 5 A Communication Strategy should be developed and implemented in order to secure full transparency in potential project proposals and in future engagements with external partners, developers, and investors.	DEPP III and the Danish embassies in the partner countries prioritize communication towards external national and international stakeholders to disseminate lessons and findings from the programme in support of low carbon development. Targeted stakeholders include project developers and investors. The communication will be based on DEA's existing communication strategy capturing all DEA's bilateral partnerships.

3. Recommendations to the INDODEPP project document

Title of Project Support	**Appraisal of the Indonesian-Danish Energy Agency Partnership Project**
File Number	**F2: 2020-34198**
Appraisal Report Date	
Council for Development Policy meeting date:	
Recommendations by the appraisal	**Follow up by the Representation**
The Appraisal is positive and the additional support to INDODEPP is recommended for approval subject to consideration of the recommendations listed below. The proposed additional support is in line with **the Danish Government's Climate Act and the SDG priorities** as set out in the 'The World We Share' strategy for development cooperation. The Appraisal notes that the proposed additional support was conceived in close cooperation existing **well-placed partner** in Indonesia. Further, the additional activities were discussed and agreed with a view to go beyond the already planned capacity building activities and enter into activities that are more concrete and closer to producing results.	

The Appraisal **overall finds** the draft PD well written and the additional support is well argued.	
In addition to the recommendations of the Programme Committee, see Annex 3, the Appraisal recommendations in relation to the finalisation of the PD for INDODEPP in relation to:	
Recommendation 1 Regarding the Institutional Context and Partners, the Appraisal **recommends** to identify relevant fora or working groups in order to engage with additional external stakeholders, investors and developers, to speed up implementation and achievement of actual impact and eventually also make sure that the focus is placed at the projects most appropriate for investors and developers (also from the Denmark). The TOC to be updated with a view to include the cause-effect of actively engaging in promotion and development of concrete projects.	Engagement and coordination with other donors are facilitated by the embassy as part of the Friends of Indonesia Renewable Energy Dialogue forum. Engagement with investors (such as EKF, IFU and DSIF) and developers is facilitated though the embassy as well as DEA via frequent dialogue and exchange of information. The TOC have been updated and does now include this aspect in the causality.
Recommendation 2 The Strategic Considerations and Justification for the support, the Appraisal **agrees** with the PC **recommendation** to include *a specific effort to establish synergies and cooperation with multilateral partners working in the same target countries and sectors and with a focus on creating pilot projects and bankable investments to further decarbonisation and transition to renewable energy,* see also recommendation 2 for DEPP III.	This aspect is now further elaborated and the project will establish synergies and cooperation with multilateral partners to promote green investments and pilot projects at province level. Coordination and dialogue will be established with the World Bank and Asian Development via the Coal Phase Out Acceleration Offer which Denmark is co-financing.
Recommendation 3 To provide the necessary flexibility to the projects to respond to emerging risks and to pursue new opportunities during implementation. The principles for application of the adaptive management approach should be clearly described in the PD, and the adaptive management procedures should be in place to adjust the results framework every time a change in approach, objectives, outcomes, or outputs are approved	The recommendation has been adopted. The adaptive management approach is described under Management and reporting
Recommendation 4 The adaptive management approach should also include monitoring of risks and procedures for an adaptive risk management approach as a minimum for the risks listed for the additional activities in the Indonesia programme. The procedures should be	The recommendation has been adopted. The adaptive management approach to monitoring risks and procedures is described under Management and reporting as well as Risk analysis.

described in terms of likelihood and impact in order to be aligned with the existing risk matrix, and the adaptive procedures should be included in the risk matrix.	
Recommendation 5 The budget for contingencies (DKK 5 mill) should be reallocated to unallocated funds and managed in accordance with the management procedures for unallocated funds	The budget of DKK 5 mill for contingencies (and one million in unallocated) is part of the initial INDODEPP budget and not part of this project extension. This project adds DKK 3.3 mill in unallocated funds and does not include contingencies. The DKK 5 mill has been reallocated from contingencies to unallocated funds proving a total unallocated budget of DKK 9.3 mill which corresponds to 12% of the total budget.
Recommendation 6 A Communication Strategy should be developed and implemented in order to secure full transparency in potential project proposals and in future engagements with external partners, developers, and investors.	INDODEPP and the Danish embassy in Jakarta prioritize communication towards external stakeholders in Indonesia as well as international to disseminate lessons and findings from the project in support of low carbon development. Targeted stakeholders include project developers and investors. The communication will be based on DEA's existing communication strategy capturing all DEA's bilateral partnerships.

I hereby confirm that that the appraisal identified the above-mentioned issues and that the appraisal team has provided the recommendations stated above.

Signed: 1. December 2021

Torben T. Larsen

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Torben Traustedt Larsen
Chief Consultant, ELK

I hereby confirm that the Representation has undertaken the follow-up activities stated above. In cases where recommendations have not been accepted, reasons for this are given either in the table or in notes enclosed.

Signed: 8th January 2022

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Karin Poulsen
Head of Department for Green Diplomacy
and Climate