

2019

Project Implementation Review (PIR)

**RE Market Transformation (NAMA)**

[Basic Data](#_Toc1)

[Overall Ratings](#_Toc2)

[Development Progress](#_Toc3)

[Implementation Progress](#_Toc4)

[Critical Risk Management](#_Toc5)

[Adjustments](#_Toc6)

[Ratings and Overall Assessments](#_Toc7)

[Gender](#_Toc8)

[Social and Environmental Standards](#_Toc9)

[Communicating Impact](#_Toc10)

[Partnerships](#_Toc11)

[Annex - Ratings Definitions](#_Toc12)

# Basic Data

|  |  |
| --- | --- |
| **Project Information** | |
| UNDP PIMS ID | 4673 |
| GEF ID | 5339 |
| Title | Market Transformation through Design and Implementation of Appropriate Mitigation Actions in Energy Sector |
| Country(ies) | Indonesia, Indonesia |
| UNDP-GEF Technical Team | Energy, Infrastructure, Transport and Technology |
| Project Implementing Partner | Government |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

|  |
| --- |
| **Project Description** |
| Indonesia’s primary energy supply mix is dominated by fossil fuels, particularly crude oil (47%), followed by coal (27%), natural gas (21%) and less than 5% from renewable resources such as hydropower (2.5%) and geothermal (1%) and biofuel (0.19%). The country has abundant renewable energy resources potential i.e. 29 GW geothermal, 75 GW hydropower, 50 GW bioenergy, 49 GW ocean power, solar insolation of 4.8 kWh/m2/day and wind speed 3-6 m/s. Indonesia is facing long-term challenges to its energy security system. Diversification of primary energy sources is therefore important.  Based on the final draft (2015) of Indonesia’s First Biennial Update Report (BUR) to UNFCCC, energy sector emits about 512 million tCO2eq or 32.2% of Indonesia’s total GHGs emission. There is urgency in reducing level of emission in energy sector by involving all stakeholders. The Government of Indonesia responds to the issue by enacting notable regulations including Presidential Regulation No. 02/2015 on the Medium-term National Development Plan (RPJMN) 2015-2019 that targets to have 10% to 16% RE contribution in primary energy mix by 2019; 7.5 GW installed capacity of RE; energy saving of 12.7% from BAU 2014 as well as commit voluntarily in 2019 to reduce GHG emissions by 29% of Business as Usual emission trajectory of 2030 through national efforts or by 41% with international assistance. The guideline for implementation is govern by Presidential Decree No. 61/2011 on National Action Plan to reduce greenhouse gas emissions (RAN-GRK) and the Local Action Plan to reduce GHG emissions (RAD-GRK). The listed mitigation actions in the RAN-GRK and RAD-GRK are therefore considered as indicative Indonesia’s Nationally Appropriate Mitigation Actions (NAMAs).  The objective of “Market Transformation through Design and Implementation of Appropriate Mitigation Actions in the Energy Sector (MTRE3)” project is to support the design and implementation of appropriate climate change mitigation actions in the energy generation and energy end use sectors. It is intended to incrementally support Government of Indonesia to achieve the voluntary GHGs emission target by supporting effective implementation of RAN-GRK and RAD-GRK in Energy Sector. During 5 years of its implementation, the project will put in place enabling environment and removing barriers to sustainable market of renewable energy and energy efficiency. To achieve this purposes, the project will focus its interventions in renewable-based electricity generation and energy efficiency in commercial building interventions. The project will consist of 3 main components: (1) Climate change mitigation options for the RE-based energy generation and energy efficiency; (2) Market transformation through implementation of appropriate mitigation actions; (3) Measurement, Reporting and Verification (MRV) system and national registry for mitigation actions. The implementing partner of the project is the Directorate General of Renewable Energy and Energy Conservation, Ministry of Energy and Mineral Resources.  In parallel with the GEF funding of USD 8,025,000 for 5 years of implementation, the project will receive co- financing in the form of parallel activities from MEMR amounted of USD 8,000,000 and from UNDP core fund of USD 100,000. |

|  |  |
| --- | --- |
| **Project Contacts** | |
| UNDP-GEF Regional Technical Adviser | Ms. Milou Beerepoot (milou.beerepoot@undp.org) |
| Programme Associate | Ms. Sornsawan (Kam) Phongphao (sornsawan.phongphao@undp.org) |
| Project Manager | Mr. Boyke Octavian Lakaseru (boyke.lakaseru@undp.org) |
| CO Focal Point | Ms. Marina Adel (marina.adel@undp.org) |
| GEF Operational Focal Point | Ms. Laksmi Dhewanti |
| Project Implementing Partner | Directorate General of New and Renewable Energy and Energy Conservation of Ministry of Energy and Mineral Resources |
| Other Partners | *(not set or not applicable)* |

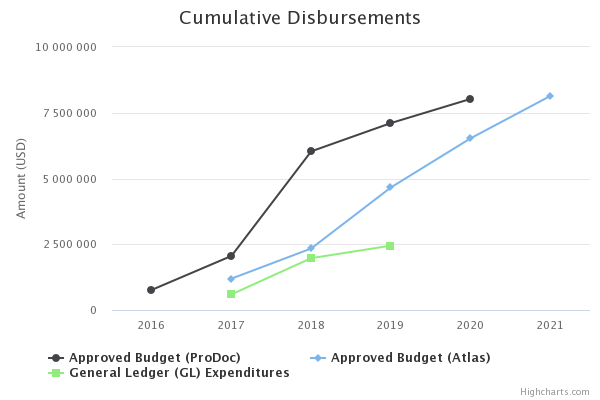
# Overall Ratings

|  |  |
| --- | --- |
| Overall DO Rating | Moderately Unsatisfactory |
| Overall IP Rating | Moderately Unsatisfactory |
| Overall Risk Rating | Moderate |

# Development Progress

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description** | | | | | | |
| **Objective**  **To support the design and implementation of appropriate climate change mitigation actions in the energy generation and energy end use sectors** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Cumulative CO2 emissions reduction, tons CO2 eq | 0 | *(not set or not applicable)* | 27,019 | The project has one (1) small hydropower plant under construction and three (3) others undergoing revitalization . The construction and revitalization activities of the micro hydro power plants are expected to be completed by mid-August 2018. Upon completion, these initiatives will contribute to emissions reduction amounting to 602 tons CO2 per year (Attachment 1) | 1,066 tons CO2 eq reduced (Attachment 46).  The CO2 emission reduction has been achieved through construction of one (1) small hydropower plant and revitalization of three (3) small hydro power plants, which have, as of 30 June 2019, contributed to 426 tons CO2 emission reduction. . The inauguration of the micro hydro power plants took place on 5 September 2018 (Attachment 47). In addition, the project has supported to conduct IGAs for 6 buildings. Of these 6 buildings, three have already started to implement EE measures. However only one building (Transmart Pekanbaru) can already now account for 640 tons CO2 emission reductions since November 2018 (Attachment 48). |
| Cumulative energy produced from RE systems facilitated by the project, MWh | 0 | *(not set or not applicable)* | 79,190 | The project has one (1) small hydropower plant under construction and three (3) others undergoing revitalization. Upon completion, these initiatives will have an installed capacity of 60 kW and will contribute to 907,200 kWh annually of renewable energy-based electricity generated and cumulatively 3,628.8 MWh by end of the project. (Attachment 1) | 907.2 MWh RE produced (Attachment 46)  The project has constructed (1) small hydropower plant and revitalized three (3) small hydro power plants, which have a capacity of 60 kW each and will contribute to 907,200 kWh annually. The inauguration of the micro hydro power plants took place in September 2018. |
| Cumulative energy saved from EE in commercial buildings facilitated by the project, MWh | 0 | *(not set or not applicable)* | 8,550 | To conduct the activity, the project collaborates with the Agency for the Assessment and Application of Technology in providing technical assistance for the Investment Grade Energy Audit (IGA). And based on the coordination with the Directorate of Energy Conservation (DEK), the project was planning to support the implementation of the existed IGA conducted by DEK (Attachment 2). There are 3 projects that are being facilitated by the Project:    1. RSUP Dr. Kariadi (Attachment 3, 4) - Public Hospital  Total area: 12,592 m2  Potential energy savings: 1,050.212 MWh/year  Potential CO2 reduction: 910.53 ton/year  Status: Detail IGA report had been submitted on 11 May 2018. (Attachment 5)    2. EBTKE Building – Office Building  Total Area: 12,120 m2  Potential energy savings: 660 MWh/year  Potential CO2 reduction: 445.5 ton/year  Status: Detail IGA report had been completed in 28 June 2018 (Attachment 6)    3. Mall Ratu Indah – Shopping Center  Total Area: 41,000 m2  Status: finalization on the detail IGA report. (Attachment 7) | 729.86 MWh cumulative energy saved (21 % against mid-term target).  The project has conducted IGAs in 6 buildings with total potential of energy saved of 10,186 MWh (Attachment 4, 6, 7, 49, 50, 51). Currently the project is monitoring and providing facilitation (if required) to the implementation of the IGAs. Three buildings have started to implement EE measures, however only one building (Transmart) is at a more advanced stage of implementation and can already now account for energy savings of 729.86 MWh. (Attachment 48).  The following 6 IGAs have been facilitated by the Project:    1. RSUP Dr. Kariadi (Attachment 3, 4) - Public Hospital  Total area: 12,592 m2  Potential energy savings: 1,050.212 MWh/year  Potential CO2 reduction: 910.53 ton/year  Status: Detail IGA report has been submitted on 11 May 2018. (Attachment 5).    2. EBTKE Building – Office Building  Total Area: 12,120 m2  Potential energy savings: 660 MWh/year  Potential CO2 reduction: 445.5 ton/year  Status: Detailed IGA report has been completed in 28 June 2018 (Attachment 6).    3. Mall Ratu Indah – Shopping Center  Total Area: 41,000 m2  Potential Energy savings: 3.236 MWh/year  Potential CO2 reduction: 2.374 ton/year  Status: detailed IGA report finalized in July 2018. (Attachment 7a and 7b)    4. Menara Ravindo – Office building  Total Area: 11.548 m2  Potential Energy savings: 1.085 MWh/year  Potential CO2 reduction: 888 ton/year  Status: detailed IGA report was finalized in October 2018 (Attachment 49).    5. Transmart – Shopping Center  Total Area: 29,218 m2  Potential Energy savings: 223 MWh/year  Potential CO2 reduction: 183 ton/year  Status: detailed IGA report was finalized in February 2019 (Attachment 50).    6. Pullman Hotel  Total Area: 40.889 m2  Potential Energy savings: 3.932 MWh/year  Potential CO2 reduction: 3.220 ton/year  Status: detailed IGA report was finalized in March 2019 (Attachment 51). |
| Cumulative volume of public and private investment mobilized for SEF, US$ million | 0 | *(not set or not applicable)* | 25 | Although SEF has not formally been established yet, the project has mobilized a total of 350,000 USD in grant funding from the Islamic Finance Institution Badan Amil Zakat Nasional (BAZNAS) and 281,394 USD from Bank Jambi for construction of one (1) micro hydro power plant and revitalization of three (3) micro hydro power plants in four (4) villages in Jambi province. The BAZNAS and Bank Jambi schemes are expected to give input to the SEF scheme piloting. (Attachments 8, 9) | USD 0 million mobilized for SEF.    Part of SEF (procurement mechanism) was established in June 2019 while another part is still being under preparation. However, before SEF was established, the project has mobilized a total of USD 2,265,074.    The project has mobilized 350,000 USD in grant funding from the Islamic Finance Institution Badan Amil Zakat Nasional (BAZNAS) and 281,394 USD from Bank Jambi for construction of one (1) micro hydro power plant and revitalization of three (3) micro hydro power plants in four (4) villages in Jambi province (Attachment 8, 9)    The project has also mobilized USD 1,551,231 as equity capital from the RE project developer PT Pasadena Biofuels Mandiri for a 3MW biogas project (Attachment 61) and USD 81,986 from building owners for energy efficiency measures in buildings (Attachment 62, 63). |
| Cumulative number of additional households (from baseline) having access to electricity in pilot provinces | 0 | *(not set or not applicable)* | 80,000 | The project has one (1) small hydropower plant under construction and three (3) others undergoing revitalization. Upon completion, these initiatives will provide electricity access to 806 households. (Attachment 10) | The project has constructed (1) small hydropower plant and revitalized three (3) small hydro power plants. These initiatives provide electricity access to 806 households (Attachment. 47). |
| **The progress of the objective can be described as:** | | **Off track** | | | | |
| **Outcome 1**  **Prioritized appropriate mitigation actions in the RE-based energy generation and energy efficiency.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Number of provinces with updated sub-national GHG Inventory and GHG Marginal Abatement Cost Curve (MACC) for energy sector | 0 | *(not set or not applicable)* | 4 | A study on GHG inventory on national level has been completed in December 2017. Two studies on GHG inventory for Riau and East Nusa Tenggara are ongoing, the studies are expected to be completed by November 2018. (Attachment 19) The inventory studies will provide the baseline for mitigation measures and be used as reference when planning, monitoring and reporting RE and EE measures and their contribution to GHG emission reduction on national and local level.  A study on MACC for each of the four pilot provinces is expected to be initiated in quarter 3 2018. (TOR is going to be developed). MACCs will inform the local governments on the costs vs. benefits and GHG abatement potentials of various RE and EE projects, while also providing inputs to policy making at the national level.    Mapping activities on the potential and realization of renewable energy and energy efficiency projects in the four pilot provinces (Jambi, Riau, West Sulawesi and East Nusa Tenggara) have been carried out in collaboration with the Directorate of New Energy, Renewable Energy and Energy Conservation (EBTKE). Activities involved meetings and development of a Preliminary Draft of Regional General Energy Planning Model. In addition, a draft report on mapping of potential renewable energy and energy efficiency projects in the four provinces has been developed. The report is going to finalized in August 2018. (Attachments 11, 12, 13)  In cooperation with Secretary General of New Energy, Renewable Energy and Energy Conservation (Setditjen EBTKE), a focus group dialogue was carried out on 17 - 18 July 2017. The focus group dialogue involved 46 attendees representing a variety of stakeholders in data collection on potential and generating renewable energy and energy efficiency projects (Attachment 14).    Technical guidance on Local Energy Plans/Pedoman Teknis Penyusunan Rencana Umum Energi Daerah (RUED) and Long-range Energy Alternative Planning system (LEAP) trainings for the four (4) pilot provinces were implemented in cooperation with the Planning Bureau of Ministry of Energy and Mineral Resources. The first RUED training was conducted on 22-24 August 2017 in Kupang East Nusa Tenggara involving 37 participants. The second RUED training was conducted in Jambi on 3 - 5 October 2017 in Jambi, Jambi Province, with a total of 42 participants. The third RUED training was conducted on 10 - 12 October 2017 in Mamuju in West Sulawesi, with 60 participants. The fourth RUED training was held in Jakarta on 13 - 16 November 2017 with government representatives from the national level and from Riau province. (Attachments 15, 16, 17, 18 )    The mapping activities and enery planning trainings will strengthen the political commitment to RE and EE project investments and better align them with the national and regional strategies on energy planning (RUEN & RUED), GHG emission reduction (RAN-GRK & RAD-GRK) and development (RPJMD-RPJMN). | 4 provinces with updated sub-national GHG Inventory (Final Report for East Nusa Tenggara, Final Report for Riau, Interim Report for Jambi and West Sulawesi).(Attachments 54, 55, 56) Over the past year, the project has finalized GHG inventories for three provinces, in addition to the completed national GHG inventory in 2017.  0 provinces with GHG Marginal Abatement Cost Curve (MACC) for energy sector.    A draft of MACC TOR has been developed (Attachment 53). A study on MACC for each of the four pilot provinces is expected to be initiated in quarter 3 2019 and completed by end of 2019.    The provincial MACC study is supposed to be conducted after Regional Energy planning and its Green House Gases Inventory and emission reference have been completed. This is because those documents would be used as reference or input for studying MACCs in order to get a curve of marginal costs that will inform what kind of technology is the best available technology with more efficient cost and is more environmentally sound for implementing the Regional Energy Plan and to reduce GHG emissions.  However, all of those GHGs studies have just been completed at the end of August. Therefore, the MACC study would be started in September 2019. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **Enhanced and sustainable market diffusion of renewable energy and energy efficiency technologies.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Total number of provinces with operational “Integrated Market Service Center” (IMSC) to support sustainable RE & EE investments. | 0 | *(not set or not applicable)* | 4 | During 2017, the first year of project implementation, the project has conducted an introduction of its objectives and activities to the four (4) pilot provinces, including presentation of Integrated Market Service Centers (IMSCs) which, once established, will support the preparation of sustainable RE and EE project investments. During 2017, four inception meetings on IMSCs were held for government officials in the four (4) pilot provinces. The first meeting was held in Pekan Baru, Riau province, on 12 - 13 July 2017 with 62 participants; the second meeting was held in Jambi on 19 - 20 July 2017 with 40 participants; the third meeting was held in Mamuju, West Sulawesi, on 1 - 2 August 2017, attended by 60 participants; and the last IMSC meeting was held in Kupang on 29 November 2017, with 26 participants actively involved. (Attachments 20, 21, 22, 23)    EBTKE has an information platform on RE investment potential called “LINTAS”. It was planned that LINTAS can be replicated in the provincial level. Thus, the Project is expected to involve LINTAS in the IMSC activity in the pilot provinces.    In 2018, based on the coordination meeting with the implementing partner, Riau has been selected to be the first province to have the IMSC supported by the project. A study on the IMSC proposed scheme has been conducted. (Attachments 24, 25) | 0 provinces with operational “Integrated Market Service Center” (IMSC) to support sustainable RE & EE investments.    The concept of integrated service for investment and permitting process has been applied nationally since the release of President Regulation no. 97 year 2014. Following this regulation, each province and region has its own Dinas Penanaman Modal dan Perijinan Terpadu Satu Pintu (DPMPTSP) which is the agency of investment and one-stop integrated permitting. All activities related to investment and permitting will be processed through this agency, including RE/EE. The project will therefore build the capacity of DPMPTSP personnel so it can also function as the IMSC. The capacity building will include the introduction of RE potential resources and the development processes as well as introduction to EE.  In March 2019, the project has made a presentation of the Final Report on Mapping of potential renewable energy projects to DPMPTSP of the four pilot provinces, including Bappenas and local/provincial offices of the Ministry of Energy and Mineral Resources. (Attachment 52).    Separate sessions will be held for DPMPTSP in each of the four pilot provinces to strengthen their capacity building in RE/EE. |
| No. of small-to-medium scale RE/EE projects that were financially supported by the Sustainable Energy Fund | 0 | *(not set or not applicable)* | 10 | Although SEF has not formally been established yet, the project has mobilized a total of 350,000USD from BAZNAS and 281,394 USD from Bank Jambi in grant funding for construction of one micro hydro power plant and revitalization of three (3) micro hydro power plants in four villages in Jambi province. (Attachments 8, 9)    In order to attract small to medium scale EE project investors that could potentially benefit from SEF, a training on basic introduction of energy conservation and energy efficiency programs in the building sector has been carried out on 15 September 2017 and attended by 47 participants. The training was carried out at Indonesia’s 6th EBTKE ConEx 2017 at Balai Kartini, Jakarta, on 13 - 15 September 2017, where MTRE3 project presented its activities. (Attachment 26) | 0 projects were financially supported by the Sustainable Energy Fund.    Part of SEF (procurement mechanism) was established in June 2019 while another part is still being under preparation. However, prior to SEF establishment in June 2019, the project supported through resource mobilization of USD 350,000 USD from BAZNAS and 281,394 USD from Bank Jambi as grant funding the construction of one micro hydro power plant and revitalization of three (3) micro hydro power plants in four villages in Jambi province. (Attachments 8, 9).    The project supported Pasadena with one biomass project with capacity of 3MW by providing technical assistance to conduct an environment and social assessment, in order to receive finance from PT SMI. The total investment made by Pasadena so far for the project development is USD 1,5 million (Attachment 61).  The project also provided technical assistance to conduct IGAs for EE in 6 buildings. As of 30 June 2019, the total investment made for EE measures in buildings after completion of IGAs is USD 82,449 (Attachments 62, 63). It is expected that more investment from the IGA implementation may follow as the project still monitors and does follow up action in each pilot project.    In October 2018, UNDP signed an MOU with PT SMI to provide support to SDG Indonesia One for small scale RE and EE projects and SOP of SDG Indonesia One have been developed (Attachment 66, 67). |
| Cumulative amount of funds from the SEF used in financially supporting small-to-medium scale RE/EE projects , US$ million | 0 | *(not set or not applicable)* | 25 | During the first year of the project implementation, the project conducted studies and meetings related to the development of SEF. A high level meeting between the UN Resident Coordinator and the Minister of Energy and Mineral Resources had come up with the proposal on blended financing to support the country’s rural electrification programme. This was then followed-up by a meeting between the UNDP Country Director and the Director General for New Renewable Energy and Energy (EBTKE) for a more specific discussion. An initial concept note on funding mechanisms, including opportunities for cooperation through blended financing between public and private sector, has been presented to Directorate General of Renewable Energy and Energy Conservation (Ditjen EBTKE) on 3 October 2017.(Attachments 27, 28, 29)      On 14 September 2017, a training for the financing sector including national banks, Energy Service Companies (ESCOs) and Otoritas Jasa Keuangan (OJK), a Financial Serves Authority , as speakers, was held, and attended by 32 participants from key and strategic stakeholders. The training was carried out at Indonesia’s 6th EBTKE ConEx 2017 at Balai Kartini, Jakarta, on 13 - 15 September 2017, where the MTRE3 project presented its activities. (Attachments 30, 31)    A workshop on financing “Financial Mechanisms for Market Transformation through Design and Implementation of Appropriate Mitigation Actions in the Energy Sector” was held on 12 December 2017 in order to identify the barriers and solutions for financing RE and EE projects. The workshop was attended by 38 participants representing over 15 different stakeholders from different Government ministries, energy service companies, financing institutions, associations and other experts within the field of renewable energy and energy efficiency. (Attachments 32, 33)    A study has been finalized on the development of a funding mechanism to encourage the use of renewable energy and energy efficiency projects. (Attachment 34)    A workshop on financing for rural electrification was held on 24 April 2018 in Bandung to receive an update on the financing situation within renewable energy and energy efficiency sector and get inputs and suggestions for project’s proposed SEF scheme. The workshop was attended by key-partners from the Ministry of Energy and Mineral Resources, the National Planning Agency (BAPPENAS) and the Ministry of Finance. (Attachments 35, 36) | A total of USD 0 used from SEF were utilized to financially support small-to-medium scale RE/EE projects.    Prior to the establishment of SEF (procurement mechanism) in June 2019, a total of USD 2,420,692 has been used in financially supporting RE/EE projects,  USD 155,618 was utilized directly from the project to provide technical assistance to development of RE and EE projects such as Pasadena’s 3 MW biogas project and 6 IGAs for buildings. .  USD 2,265,074 mobilized from the private and public sector has been utilized to support RE and EE projects.  Out of USD 2,265,074, USD 350,000 USD was utilized as grant funding from the Islamic Finance Institution Badan Amil Zakat Nasional (BAZNAS) and 281,394 USD from Bank Jambi for construction of one (1) micro hydro power plant and revitalization of three (3) micro hydro power plants in four (4) villages in Jambi province (Attachment 8, 9). USD 1,551,231 from Pasadena was used for a 3MW biogas project (Attachment 61) and USD 87,409 from building owners was used for energy efficiency measures in buildings (Attachment 62, 63). |
| Cumulative number of NAMAs proposals developed for RE and EE projects in pilot provinces, based on the identified and prioritized RE/EE projects. | 1 | *(not set or not applicable)* | 4 (2 RE and 2 EE) | Mapping activities on the potential and realization of renewable energy and energy efficiency projects in the four pilot provinces as well as MACC curve development are ongoing in collaboration with EBTKE. Once the mapping activities have been finalized, they will be used as inputs for developing NAMAs proposals. (Attachment 37) | 0 NAMAs proposals developed for RE and EE projects in pilot provinces, based on the identified and prioritized RE/EE projects.  Mapping activities on the potential and realization of renewable energy and energy efficiency projects in the four pilot provinces have been completed while the MACC curve development will be finalized this year in collaboration with EBTKE. Once the MACCs have been finalized, they will be used as inputs for developing NAMAs proposals. (Attachment 37) |
| Cumulative capacity of RE investment projects implemented, MW | 0 | *(not set or not applicable)* | 15 | Development of micro hydro in four (4) locations in Jambi Province has been initiated, through a partnership between UNDP, Ministry of Energy and Mineral Resources, Bank Jambi and the Islamic finance institution Badan Amil Zakat Nasional (BAZNAS). A tender for construction of one (1) micro hydro power plant of 60 kW in Lubuk Bangkar village, Sarolangun, Jambi province, has been signed by Rekaparas Consulting Company. Moreover, a Micro Grant Scheme has been signed between UNDP and Heads of three other villages in Jambi province, in order to begin the revitalization of three (3) micro hydro plants through provision of micro grants to the local communities. (Attachments 40, 41, 42)  A groundbreaking for the micro hydro development took place on 6 April 2018 in Lubuk Bangkar village, Jambi province. The inauguration of the micro hydro was attended by Directorate General of New and Renewable Energy and Energy Conservation (DJEBTKE), Ministry of Energy and Mineral Resources, Government of Jambi, Bank Jambi, BAZNAS and UNDP( Link to UNDP's website)    A monitoring visit was carried out by the project team to see the progress of micro hydro revitalization in three villages Air Liki and Air Liki Baru. (Attachment 43) | 0.18W of RE investment project implemented.  The project has completed development of micro hydro in four (4) locations in Jambi Province with a total of 0.18 MW (Attachment 47).  Additional biogas project of 3 MW in Riau province is being developed (Attachment 61). The project is in the process of achieving financial close with PT SMI. The MTRE3 project has supported to conduct a Social and environmental Assessment and is currently providing support to develop a legal opinion.    Additional micro hydro project of 60 kW is being developed in Jambi province and is expected to be complete in December 2019 (Attachment 64). |
| Cumulative floor area of buildings that were made energy efficient, m2. | 0 | *(not set or not applicable)* | 50,000 | An IGA report for RSUP Dr. Kariadi (a state-owned enterprise) has been completed in April 2018. The building area is 12,592 m2 and the implementation of potential energy savings is ongoing. There are 4 Energy Savings Opportunities (ESO) proposed by the previous IGA report, which are: (1) lamp retrofitting, (2) substitution from heat pump to solar water heater, (3) replacement of chiller and VRF with water cooled chiller, and (4) replacement of AHU chiller in operation rooms with VRF DX AHU active heatpipe. Based on the discussion, in consideration to the saving potential and the relatively new units of the chiller, thus RSUP Kariadi will implement the ESO 1 and ESO 2. ESO 1 has been gradually implemented in some areas of the hospital. While for ESO 2, RSUP Kariyadi plans to implement it between this year or next year depending on the approved budget plan (Attachments 4, 44) | 29.218 m2 has been made energy efficient in Transmart Mall Pekanbaru. This shopping center is located in Pekanbaru, Riau. The building consists of 5 floors and has a unique concept as it has 1 full floor dedicated only for kids playground called the Trans Studio Mini. It is an integrated concept of family shopping center. Furthermore, Transmart mall is not only located in Pekanbaru but also in other cities all around Indonesia which makes it possible for replicating EE measures in other Transmart malls. EE measures were taken in Transmart mall after the project has supported to conduct a detailed investment grade audit (IGA). Transmart has improved its operational equipment which has contributed to energy savings of total 729.86 MWh per year (Attachment 48).  The project focuses on following up the implementation of existing IGAs in 6 buildings. The project is considering facilitating IGAs in more buildings as technical assistance for EE implementation. Furthermore the project is also facilitating the building owners to have discussion and potential collaboration with Energy Service Company (ESCO). |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 3**  **Accurate measurement and accounting of actual GHG emission reductions from mitigation actions in the RE-based energy generation and energy efficiency.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| No. of registered mitigation actions in energy sector that are endorsed by the MEMR and MoEF. | 0 | *(not set or not applicable)* | 14 | Registration of mitigation actions is expected to be undertaken after the NAMAs proposals are completed. However, to date, a total of 210 mitigation actions within the energy sector for the four pilot provinces have been submitted to the National Registry System (SRN) on 15 September 2017 by UNDP MTRE3 project following delegation by the Ministry of Energy & Mineral Resources (MEMR). In addition to the aforementioned mitigation actions submitted, a total of 842 mitigation actions have been registered covering other provinces in Indonesia. These total of 1,052 mitigation actions were identified by the MEMR referring to the National Mitigation Action Plan (RAN-GRK), and all have been implemented. However, these mitigation actions were not registered yet to the SRN until it has been facilitated by MTRE3 Project.  (Attachment 45) | 0 registered mitigation actions in energy sector that are endorsed by the MEMR and MoEF.    Registration of mitigation actions is expected to be undertaken after the NAMAs proposals are completed.  However, to date, a total of 210 mitigation actions within the energy sector for the four pilot provinces have been submitted to the National Registry System (SRN) on 15 September 2017 by UNDP MTRE3 project following delegation by the Ministry of Energy & Mineral Resources (MEMR). (Attachment 45)  MTRE3 collaborates with UNDP-PMR Project to develop pilot project on Indonesia Certified Emission Reduction (ICER) for the Microhydro developed by MTRE3 to be registered as mitigation action endorsed by MEMR & MoEF. (Attachment 65) |
| Total number of MRV reports submitted to MoEF following nationally agreed standard method and guideline. | 0 | *(not set or not applicable)* | 4 | Preparation and submission of MRV reports to the Ministry of Environment and Forestry (MoEF) is expected to be undertaken after the NAMAs are completed. However, a study onto review the existing Monitoring, Reporting and Verification (MRV) system from climate mitigation actions has been completed on 12 March 2018. (Attachment 19) | 0 MRV reports submitted to MoEF following nationally agreed standard method and guideline.    Preparation and submission of MRV reports to the Ministry of Environment and Forestry (MoEF) is expected to be undertaken after the Government of Indonesia announces / releases the methodology to calculate the emission reduction.  MTRE3 facilitates MoEF to develop the methodology to calculate emission reduction in Renewable Energy Electricity Generation project. Four drafts of methodology are developed, including hydropower, wind, solar and biomass. (Attachment 57-60).    This methodology will be used as part of MRV report. |
| **The progress of the objective can be described as:** | | **Off track** | | | | |

# Implementation Progress



|  |  |
| --- | --- |
| Cumulative GL delivery against total approved amount (in prodoc): | 30.49% |
| Cumulative GL delivery against expected delivery as of this year: | 34.42% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 2,446,563 |

|  |  |
| --- | --- |
| **Key Financing Amounts** | |
| PPG Amount | 175,000 |
| GEF Grant Amount | 8,025,000 |
| Co-financing | 60,100,000 |

|  |  |
| --- | --- |
| **Key Project Dates** | |
| PIF Approval Date | Nov 15, 2013 |
| CEO Endorsement Date | Jul 12, 2016 |
| Project Document Signature Date (project start date): | Mar 13, 2017 |
| Date of Inception Workshop | *(not set or not applicable)* |
| Expected Date of Mid-term Review | Jun 30, 2019 |
| Actual Date of Mid-term Review | *(not set or not applicable)* |
| Expected Date of Terminal Evaluation | Dec 30, 2021 |
| Original Planned Closing Date | Mar 13, 2022 |
| Revised Planned Closing Date | *(not set or not applicable)* |

|  |
| --- |
| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2018-12-15 |

# Critical Risk Management

|  |  |
| --- | --- |
| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Organizational | Since last year, the function and utilization of GEF funding for developing Sustainable Energy Fund is still being discussed within UNDP. Although this year, there is some progress that has been achieved such as clarification on the kind of modality that can be applied and the started time to use it. Since June 2019, in terms of modality of SEF, it can be used for supporting proposal development through grant modality by using UNDP procurement system. Prior to June 2019, the procurement modality was applied in supporting a study on social and environment impact assessment for Pasadena Bio Gas power plant proposal. The aims is to prepare a Bankability proposal in order to get finance from Financing institutions. Since there is still no complete rule and regulation on how to use and govern SEF and clarity on how to utilize the loan guarantee mechanism of SEF, the target to provide 2.5 US$ Million for small RE has not been achieved.  Description  There is a risk that the postponed provision of 2.5 million US$ from GEF funds to the Sustainable Energy Fund will impact the achievement of project’s annual targets related to implementation of small scale renewable energy projects. The usage of 2.5 million US$ from GEF for the Sustainable Energy Fund has been put on hold until project’s third year of implementation and is conditioned by the formal adoption of UNDP’s modified Financial Rules and Regulations authorizing and prescribing project’s proposed uses of the fund.    The function and utilization of GEF funding for developing the Sustainable Energy Fund is still being discussed within UNDP, and UNDP’s revision of its financial rules and regulations is being closely monitored in order to capture relevant information for the development process of the Sustainable Energy Fund and the planning of the usage of GEF funds. The project team had a skype meeting with the Regional Technical Advisor on 2 March 2018 where the latest update on UNDP’s revision of its financial rules and regulations and possibilities for SEF development were discussed. |

# Adjustments

**Comments on delays in key project milestones**

|  |
| --- |
| **Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| During project implementation from 2018 to 2019, in general most of the key project milestones (outcome 1, outcome 2 and outcome 3) have been achieved. However, some key project milestone related to Sustainable Energy Fund have been partially achieved due to formal approval from GEF-UNDP to utilize SEF for supporting and facilitating financing for small –medium RE and EE projects and it has been approved by GEF-UNDP on June 2019. Since then, the activities related to SEF has been accelerated and give positive impact on SEF, such as Conducting market sounding to gather potential Renewable Energy projects and to see and analyze current Renewable Energy Market and its dynamic. As result, some Independent Power Producers (IPPs) have sent letters of interest to get support from SEF.  Moreover, there is a greater need for timely and effective utilization of SEF allocations in the remaining project period and need still support form GEF-UNDP. |

|  |
| --- |
| **Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| Mid-term review is ongoing and will be completed soon. The MTR Final Report has been submitted and the Management Response is being prepared. There has been a certain delay in finalizing the MTR report as additional important information from project stakeholders has been received and provided to the consultant just recently. |

|  |
| --- |
| **UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The Mid-Term review for the MTRE3 project was conducted according to the expected timeline although may have been hindered by the fact that a crucial part of the project, the establishment of a Sustainable Energy Fund, is still under discussion. This general complication in the project, which is caused by external factors although the project team may have been more pro-active in picking up this challenge, is influencing the overall project progress and will have to be solved as soon as possible. |

# Ratings and Overall Assessments

|  |  |  |
| --- | --- | --- |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Moderately Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | Considering both its implementation of the project and expected long term sustainable benefits of the MTRE3 project, in year two, in general the project has been successfully implemented with satisfactory performance in Outcome 1, Outcome 2 and Outcome 3. Especially for Outcome 2, when three revitalized Micro Hydro power plants and one new Micro hydro power plant was inaugurated by the Minister of National Development and planning. Moreover, all of Micro hydro power plants have been built by applying a blended financial mechanism in which ZAKAT funds have been blended with funds from donor and Corporate Social Responsibility funds. This blended financial mechanism can be seen as a strong living example that Zakat can be utilized to provide electricity for poor and remote people.    COMPARISON OF RESULTS AGAINST PROJECT OBJECTIVES    The objective of the project is to support the design and implementation of appropriate climate change mitigation actions in the energy generation and energy end use sectors. It is intended to incrementally support Government of Indonesia to achieve the voluntary GHGs emission target by supporting effective implementation of RAN-GRK and RAD-GRK in Energy Sector    In order to achieve project objective and address the barriers, the project’s interventions have been organized into critical factors namely putting in place enabling environment and removing barriers to sustainable market of renewable energy and energy efficiency. It is focused on 3 main components: (1) Climate change mitigation options for the RE-based energy generation and energy efficiency; (2) Market transformation through implementation of appropriate mitigation actions; (3) Measurement, Reporting and Verification (MRV) system and national registry for mitigation actions.    In year one, the enabling condition activities have been done and achieved some important results that should be used as key milestones that should be continued in year two of project implementation.    Some of the activities that have been done in the past involve workshops at national and sub-national that were used as forums to inform about the project to the IP and related key stakeholders in order to get buy in and support from them in implementing the project. On national and sub national, in terms of policy and development, the MTRE3 project supported development of Regional Energy Planning at 4 pilot provinces, Study on potency of renewable Energy at 4 provinces and study on GHG inventory at 2 pilot provinces. Under component 2, some strategic activities have been done, e.g. study on Investment Grade Audits in commercial buildings, Specific Energy Consumption in commercial buildings and some meetings and discussion with the Banks, Financing Authority Body and local permit license as well at 4 provinces. Under component 3, some strategic activities were done, such as facilitating and supporting Ministry of Energy and Mineral resources to put mitigation actions in energy sector into the National Registration system. And implementing Blended finance through developing and revitalizing Micro Hydro plants at 4 villages in Jambi province. All of these activities can be seen as enabling conditions that provide a useful foundation to accelerate the implementation of the MTRE project.    In year two, there are some key results that have been successfully achieved in Outcome 1, Outcome 2 and Outcome 3.There were some results over the past year such as, 4 draft of regional energy planning, 2 draft of study on potential of renewable energy, Maps of the potential and realization of renewable energy and energy efficiency, constructed micro hydro power plant in Lubuk Bangkar village, 3 Investment grade audit in commercial buildings and 210 mitigation actions within the energy sector for the four provinces submitted to the National Registry System (SRN).    Moreover, In the same year, the project also has joint activity with the Tiger Sumatran project in developing a new Micro Hydro plant in Renah Kasah Village, Kerinci District, Jambi. The location of Micro hydro plant is located at rehabilitation zone of Kerinci National Park. By regulation, it allows to build a micro hydro plant in National Park area, however the project should fulfill the land conservation activities requirements such as study mapping on land utilization and tree plantation and rehabilitation to get a permit namely permit for utilizing water energy “IPEA’. All activities related to land conservation would be done by Tiger Sumatran Project and activities related to public socialization and development of Micro Hydro Plant would be conducted by MTRE3. This joint project can be seen how the project has taken an important synergic joint role in order to get mutual benefits for achieving their project targets.    Moreover, MTRE3 project has joint activity with PMR project in developing Indonesia Carbon Emissions Reduction scheme. This scheme is Carbon market scheme which would be applied in Indonesia as non-compulsory scheme. Lubuk Bangkar Miro Hydro Plant has chosen as a pilot project. Currently, Lubuk Bangkar Village established village business enterprise, namely ‘BUMDES’. The Business enterprise has been operated to collect money from the community to support the maintenance micro power plant. Once the scheme has been successfully applied., it can be projected as a source of fund for supporting operation and maintenance of Micro Hydro plant in sustainable way and to monitor emissions which would be reduced. Hopefully, it could be replicated to other areas as well.    There are some key strategic results that have been successfully completed. However, it has been recognized that a number of results have not been fully achieved because of internal factors and external factors towards targeted results such as Marginal Abatement Cost Curve and Official approval for utilize SEF. In terms of developing MAC Curve, the challenges are: all of 4 regional planning were just accepted by National Energy Council in end of 2018 and should be approved by Local Parliament and all of GHGs inventory study has just been completed in August 2019. Those documents are important source of data and information for developing MAC curve. Since the completion of these documents has been delayed, the MACC developing process has been delayed as well.    Therefore, it needs time and more efforts to address the challenges and meet the target as stated in Project Document.    Therefore, overall, in year two of project implementation, the project has made significant milestones, achievements and progress towards its objective Moderately Satisfactory. It has been reflected in the improvement of the enabling policy and regulation environment for increasing investment in renewable energy and energy efficiency and enlarge project output and sustainability by building cooperation with other projects in UNDP Indonesia such as The Sumatran Tiger Project and PMR. Moreover, the Project has full support from government and other relevant stakeholders at National and sub-National level to achieve its targeted results, outputs and outcomes. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Moderately Unsatisfactory | Moderately Unsatisfactory |
| Overall Assessment | EXPLANATION FOR THE DO AND IP RATINGS  Overall, the project has met some key milestones towards achieving the outcomes, but the project has also experienced delays in achieving most of the project’s targets, which makes the project’s performance to date moderately unsatisfactory towards achievement of development objectives (DO) and the implementation progress (IP). The key milestones under Outcome 1 involve RE potential mapping and GHG inventories in pilot provinces and drafts of Regional Energy Plans. As of June 2018, two final drafts of Regional Energy plans and no GHG inventories were ready. As of June 2019, four final drafts of Regional Energy Plans and four GHG Inventories were developed for the four provinces.    Under outcome 2, the key milestones are conduct of IGAs for EE in buildings, development of four micro-hydro power plants in Jambi province and UNDP entering a partnership with PT SMI for implementing SDG Indonesia One. Two IGA reports were conducted and 4 micro hydro power plants were under construction as of June 2018. Additional four IGA reports were conducted and the construction/revitalization of all four micro hydro power plants were completed as of June 2019. In addition, the agreement between UNDP and PT SMI was issued in October 2018;    Under Outcome 3, the key achievement has been development of methodologies for calculation of GHG emissions reduction in the energy sector. The project has also efficiently collaborated with two other UNDP projects towards achieving project’s targets, such as supporting a mitigation action to be registered by piloting Indonesia Certified Emission Reduction (ICER) in project’s existing micro-hydro sites in Jambi. The delays encountered are caused by both internal as well as external factors. Internal factors relate to slow recruitment of PMU staff to facilitate delivery on key project activities, while external factors relate to the prolonged process in seeking clarification regarding establishment of SEF to be in line with UNDP’s financial rules and regulations.    Cumulative delivery for the project has been 30 %. The big-ticket item for the project involves activities under SEF but since the establishment of SEF has been delayed, it has affected the overall delivery of the project. However, after part of SEF (procurement mechanism) has been established in June 2019, the PMU has with support from the CO started to actively identify possible ways to utilize the approved SEF mechanism. It is therefore expected that once the project has identified a sufficient amount of RE projects to be supported by SEF and engaged experts to support the project development through procurement mechanism, the overall delivery rate would accelerate further.    PROGRESS OF OUTCOMES AGAINST END OF PROJECT TARGETS AND PROJECT CHALLENGES  The project has been relatively slow in achieving progress in Outcome 1. The project has developed final GHG Inventory and Baselines for the two pilot provinces and draft GHG Inventory and Baselines for two other pilot provinces, the latest GHG inventory report was finalized in April 2019. Draft of Regional Energy Plans (RUED) have also been developed for the four pilot projects which provide an overview of renewable energy potential. However, the MACCs have not yet been developed for any of the four provinces as this activity has been waiting for the completion of GHG inventories in all the four provinces. A timely completion of GHG inventories could have contributed to MACCs being available at an earlier stage of project implementation. The absence of MACCs delays the progress of several other project activities as information from both the GHG inventory and MACCs is needed to provide relevant information for the provincial government to plan and prioritize appropriate mitigation actions in the energy sector. The development of MACCs is also needed to provide inputs for Outcome 3 of the project, such as development of NAMAs in the four pilot provinces.  The PMU has faced difficulties and delays in recruiting a WG coordinator for Component 1, after the previous coordinator resigned from the post. The absence of the WG coordinator has put the PMU under pressure to carry out project activities with limited capacity. This may have also caused delays in the completion of activities under Outcome 1.  For Outcome 2, the progress has been varying, with one target having been achieved while achievement of other targets is still lagging behind. One of the project’s successful achievements has been supporting energy efficiency in buildings by developing Investment Grade Audits for the building sector. By having facilitated Investment Grade Audits in six buildings, the project has encouraged building owners to start implementing low/no cost EE measures as well as making investments in EE measures.  The development of SEF is taking time to finalize as its financing mechanisms have to be designed in line with UNDP’s financial rules and regulations. With support from Bangkok regional office and HQ, part of the SEF mechanism which involves providing technical assistance to project development through procurement has been approved and established in June this year. Although the procurement function of SEF has been cleared, the project still faces challenges to identify a suitable amount of pipeline projects that could potentially receive support from SEF. The market-sounding carried out in July 2019 has attracted only a few project developers and the project is still looking for additional pipelines with support from MEMR and other development partners such as USAID.  With support from the project, UNDP has entered into a partnership with PT SMI to provide support for the newly established SDG Indonesia One. However, the ability of UNDP to provide support under SIO depends also on the potential financial mechanisms that are in line with UNDP’s financial rules and regulations. The project has engaged an external expert to provide recommendations for improvement of SIO framework to enhance the possibility of project financing under SIO.  The project has finalized development/revitalization of the four micro-hydro powerplants in Jambi province and the benefits of the project are already visible on the ground. With access to energy, the beneficiaries have a more comfortable lifestyle and are also able to engage in economic activities supported by the electricity generated from the micro hydro, such as coffee production and production of frozen food and beverages. Sustainability of the project results remains however a challenge as the beneficiaries in Lubuk Bangkar village have experienced a breakdown of the micro hydro which was time consuming to repair.  The achievement of targets under Outcome 3 is delayed, as Outcome 3 is to a large extent dependent on the results provided from Outcome 1 - the fully developed GHG Inventory and Baseline and MACCs in the four pilot provinces. However, in parallel with the completion of activities under Outcome 1, the project is collaborating with another UNDP project to develop a pilot project for Indonesia Certified Emission Reduction (ICER) for the Microhydro developed by MTRE3 to be registered as mitigation action endorsed by MEMR & MoEF.  The gender aspect has still not received enough attention in the project implementation. The plan for this year is to recruit a Gender Expert to carry out a Gender Analysis and Action Plan for the project. A TOR has been developed for the Gender Expert however the recruitment has not taken place yet. It is recommended to recruit a Gender specialist during August 2019.    PROJECT CHALLENGES  To address the identified challenges and enhance the achievement of the project, the following actions are recommended:  - Recruit the Technical Work Group Coordinator for Component 1 as soon as possible to support implementation of activities under Outcome 1  - Accelerate identification of suitable project pipelines to be supported by SEF procurement mechanism  - To ensure sustainability of the micro hydro projects, continuous training on O&M should be provided to the operators of the micro hydro. To better track the functioning of the micro-hydro plants, metering systems should be installed at each of the four power plants.  - Recruit a Gender Expert as soon as possible to conduct a Gender Analysis and Action Plan, so that the project will be able to implement gender mainstreaming activities during the remaining time of its duration. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Implementing Partner** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Moderately Unsatisfactory | Moderately Unsatisfactory |
| Overall Assessment | The project is entering its 3rd year of implementation and is being faced with some consistent challenges throughout the first 2 years of project implementation that now show impact on project results. As a result of a combination of project staff turnover and continued discussions on the interpretation and execution of setting up a Sustainable Energy Fund, project results are showing delays as well. The Development Objective is therefore rated as Moderately Unsatisfactory.    The delivery rates of the project are relatively low which is to a certain extent also related to the absence of the Sustainable Energy Fund. With an overall delivery rate of 30% at Mid-Term Review, the Implementation Progress is rated Moderately Unsatisfactory.    DEVELOPMENT OBJECTIVE    After a relatively good start in the first year of implementation, which started with several initiatives on micro-hydro plants, IGAs for energy efficiency in buildings and drafting of regional energy plans, it seems that implementation progress in the second year of implementation considerably slowed down. The project team was faced with staff turnover and may therefore have had difficulties in available capacity in the PMU. Also, the challenges in setting up a Sustainable Energy Fund and the need to revise the concept of the Fund as compared to the original idea in the project document, only seem to have been accepted during the 2nd year of project implementation. Over the past year, the PMU and CO discussed with the RTA on the possibilities and limitations of setting up financial instruments and came to conclusions on a way forward in developing a workable approach forward for the project. As a result of the above mentioned challenges, the project showed modest progress over the past year.    Under Component 1, whereas 4 regional energy plans were finalized in the second half of 2018, the provincial MACC studies are delayed since these should build on the Regional Energy planning and its Green House Gases Inventory and the approval by the Local Parliament of the GHGs inventory studies did only happen in August 2019.    Under Component 2, the project intends to focus on supporting the regional Perijinan Terpadu Satu Pintu (DPMPTSP) which is an investment agency and one-stop shop for integrated permitting and therefore discontinue the idea of setting up and operationalize “Integrated Market Service Centers” (IMSCs) in each of the 4 provinces. The project may want to create a clear plan for capacity building of the DPMPTSP in order to come to similar results as was foreseen for the IMSCs.    In terms of supporting RE/EE projects and facilitating project development by means of a Sustainable Energy Fund, this is a particular bottle-neck in the project as the originally intended financial instrument will have to be revised in order to match with internal financial rules and regulations. Over the past year, discussions have taken place that made clear that alternative ideas may need to be developed, to be supported by a financial specialist. It is important that the project will now work with the financial specialist in order to come to conclusions on how project funds can be used to support a Sustainable Energy Fund or the SDG Indonesia One (SIO) scheme.    The project showed its best results in terms of realizing energy savings through a particular building project that benefited from an Investment Grade Audit (IGA) supported by the project. The project could build on this success by continuing such interventions but it is not yet clear if that is indeed foreseen in the project.    The support in realizing and revitalizing mini-hydro projects contributes to some CO2 emission reduction but it is not clear to what extend it will contribute to transformational change ithat facilitates continuation of mini-grid development n the country. Since the mini-hydro projects are funded through 100% grant funding, this does not seem to be a model that can expect to see a lot of replication. Grant funded projects are often faced with challenges in operation and maintenance and it seems that one of the mini-hydro projects has already experienced such set back.    Under Component 3, the project has not yet been able to show registered mitigation actions or MRV reporting. The project is thereby expecting to first see the MACC studies but since these were delayed, the results under Component 3 are delayed as well.    Given the slowdown in project implementation results over the past year the Project Development Objective has been rated as Moderately Unsatisfactory.    IMPLEMENTATION OBJECTIVE    As a consequence of the delay in project implementation as recorded above, the project is showing a correlated delay in delivery progress. With an overall delivery rate of 30% at Mid-Term Review, the project is not on track in delivery rate, although this may be caused to a large extent by the fact that the Sustainable Energy Fund (reservation of 2.5 mln$) has still to materialize. The project Implementation Progress is therefore rated as Moderately Unsatisfactory.    RECOMMENDATIONS    Even though the setting up of the Sustainable Energy Fund is to some extent challenged by external factors, the project may not have realized on time how important it is to dedicate effort to discussing alternative approaches. It is therefore of crucial importance that the project will now work with an external financial specialist to discuss possible ways of using project funding for support of RE and EE project development. A conclusion on the way forward with regard to this bottleneck would need to be taken before the end of the year in order to get the project back on track.    The project may also need to consider alternative approaches to RE development, taking into account what bottlenecks private sector is facing to start developing more projects. Models based on 100% grant funding cannot be considered as contributing to transformational change in the country.    The project can build on successful project interventions, such as the IGAs for EE in buildings, to achieve further energy savings in buildings. In this case, it works best to use the first successful building as an example of energy and cost savings and therefore offer support for conducting IGAs but on condition of building owners contributing a certain share of costs of the IGA.    The project team has the intention to recruit a Gender expert which is recommended since the previous PIR already identified the need for a Gender Analysis and Gender Action Plan. | |

# Gender

**Progress in Advancing Gender Equality and Women's Empowerment**

This information is used in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee and for other internal and external communications and learning.  The Project Manager and/or Project Gender Officer should complete this section with support from the UNDP Country Office.

|  |
| --- |
| **Gender Analysis and Action Plan:** *not available* |
| **Please review the project's Gender Analysis and Action Plan. If the document is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis and all projects approved since 1 July 2018 are required to have a gender analysis and action plan.** |
| *(not set or not applicable)* |

|  |
| --- |
| **Please indicate in which results areas the project is contributing to gender equality (you may select more than one results area, or select not applicable):** |
| Contributing to closing gender gaps in access to and control over resources: No |
| Improving the participation and decision-making of women in natural resource governance: No |
| Targeting socio-economic benefits and services for women: No |
| Not applicable: Yes |

|  |
| --- |
| **Atlas Gender Marker Rating** |
| **GEN2:** gender equality as significant objective |

|  |
| --- |
| **Please describe any experiences or linkages (direct or indirect) between project activities and gender-based violence (GBV). This information is for UNDP use only and will not be shared with GEF Secretariat.** |
| *(not set or not applicable)* |

|  |
| --- |
| **Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.**    **Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.** |
| The project has developed four micro hydro power plants in the Jambi province that give access to electricity to 806 households and other public facilities. Out of 3,534 people in the pilot areas, 1,720 women benefit directly by having their livelihoods and quality of life improved. Women interviewed at Lubuk Bangkar village were satisfied with the more long-lasting electricity produced by the power plant and the price they had to pay for the electricity. They confirmed that their living conditions have been improved, with changes such as brighter outdoor areas, indoor lighting, cooking and possibility to carry out economic activities such as coffee production and making frozen food and beverage for sale.  Gender equality is also being considered throughout project implementation by involving both women and men in project management and project’s consultation processes and ensuring that the project benefits women and men equally. In every stage of project’s planning and implementation e.g. inception workshops, project planning meetings, technical meetings, consultation meetings prior to implementation of the project activities, demonstrations of activities and trainings, at least 30% of participants actively involved have been women.  In terms of project management, out of 4 MTRE3 project management board members, 1 (25%) is woman; out of 7 MTRE3 project team members 3 (42.9%) are women; out of 3 MTRE3 project technical working group members 1 (33.33%) is woman.    The project has made electricity accessible to both men and women, making it possible for them to utilize the electricity based on their needs and preferences, For instance, the electricity provided has facilitated cooking for the women in the villages since kitchen equipment such as rice cookers and blenders is starting to be utilized more frequently. |

|  |
| --- |
| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| Along with the increased access to modern energy services amongst the women beneficiaries in particular, the amount of kerosene consumed for lighting and cooking has been reduced and minimized, as well as the utilization of wood for cooking. This has contributed to cleaner indoor air for the project beneficiaries as well as to the project’s environmental targets such as reduction of greenhouse gas emissions |

# Social and Environmental Standards

**Social and Environmental Standards (Safeguards)**

The Project Manager and/or the project’s Safeguards Officer should complete this section of the PIR with support from the UNDP Country Office. The UNDP-GEF RTA should review to ensure it is complete and accurate.

|  |
| --- |
| **1) Have any new social and/or environmental risks been identified during project implementation?** |
| No |

|  |
| --- |
| **If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.** |
| NA |

|  |
| --- |
| **2) Have any existing social and/or environmental risks been escalated during the reporting period? For example, when a low risk increased to moderate, or a moderate risk increased to high.** |
| No |

|  |
| --- |
| **If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.** |
| No important and significant social and/or environmental issues related to existing social and/or environmental been escalated during this reporting period |

|  |
| --- |
| **SESP:**  **Environmental and Social Management Plan/Framework:** *not available* |
| **For reference, please find below the project's safeguards screening (Social and Environmental Screening Procedure (SESP) or the old ESSP tool); management plans (if any); and its SESP categorization above. Please note that the SESP categorization might have been corrected during a centralized review.** |
| *(not set or not applicable)* |

|  |
| --- |
| **3) Have any required social and environmental assessments and/or management plans been prepared in the reporting period? For example, an updated Stakeholder Engagement Plan, Environmental and Social Impact Assessment (ESIA) or Indigenous Peoples Plan.** |
| No |

|  |
| --- |
| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| NA |

|  |
| --- |
| **4) Has the project received complaints related to social and/or environmental impacts (actual or potential )?** |
| No |

|  |
| --- |
| **If yes, please describe the complaint(s) or grievance(s) in detail including the status, significance, who was involved and what action was taken.** |
| NA |

# Communicating Impact

|  |
| --- |
| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| A micro hydro power plant at Lubuk Bangkar Village and 3 revitalized Micro Hydro power plants at Ngaol, Air Liki and Air Liki Baru at Merangin district were built and revitalized by joint cooperation of UNDP, BAZNAS and Bank Jambi with blended finace scheme was inaugurated by Minister of National Planning and Develoment on 5 September 2018. Project supported the revitalization of three micro hydro projects (40kW each) and has facilitated the design and implementation one new micro hydro project (60kW) in remote off-grid villages of Jambi province. Since then, these micro hydro projects are providing electricity to the four completed micro hydro projects are currently providing electricity access to 806 households (approximately over 4,000 people), 8 Schools, 23 Mosques, 4 Village Halls, 5 Security Posts, 1 Nursing Home and 2 Balai Adat Buildings in the four villages. Respective communities are greatly benefiting from power supply, which has considerably transformed and improved their life and livelihoods such as local tourism and house hold business.  Overall they are well satisfied and are greatly benefiting from power supply, which has considerably transformed and improved their life and livelihoods, as they can now use electricity for variety of household purposes and to generate economic activity. The micro hydro has benefited the poorest the most as previously they could only afford to lit their homes only with old kerosene lamps, but now electricity has completely enlightened their houses. |

**Knowledge Management, Project Links and Social Media**

|  |
| --- |
| **Please describe knowledge activities / products as outlined in knowledge management approved at CEO Endorsement /Approval.**    **Please also include: project's website, project page on the UNDP website, blogs, photos stories (e.g. Exposure), Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source. Please upload any supporting files, including photos, videos, stories, and other documents using the 'file lirbary' button in the top right of the PIR.** |
| - MTRE3’s project website http://mtre3.idsolutions.id and it would be migrated to UNDP server and the domain would be www.mtre3.id    -Other media sites:  Ground Breaking event on Development and renovation Micro hydro power plants was covered with on line media and printed media at national and Jambi as well. It can be seen at the list of medias as follows:  1. Radio Republik Indonesia  http://rri.co.id/post/berita/511537/ruang\_publik/groundbreaking\_baznasundp\_resmi\_bangun\_pltmh\_di\_jambi.html  2. Kanal Indonesia  https://kanalindonesia.com/40226/2018/04/06/baznas-gelontorkan-dana-rp-48-miliar-untuk-pembangunan-pltmh-di-jambi/  3. Okezone.com  https://news.okezone.com/read/2018/04/06/340/1883205/groundbreaking-baznas-undp-resmi-bangun-pltmh-di-jambi  4. Industry.co.id  http://www.industry.co.id/read/30390/groundbreaking-baznas-undp-resmi-bangun-pltmh-di-jambi  5. Republika  http://khazanah.republika.co.id/berita/dunia-islam/wakaf/18/04/06/p6roqv423-baznas-luncurkan-program-pembangunan-pertama-dengan-zakat  6. Suara Karya  http://m.suarakarya.id/detail/65125/Baznas-UNDP-Segera-Bangun-PLTMH-Di-Jambi  7. Tempo.co  https://inforial.tempo.co/info/1000421/baznas-undp-bangun-pembangkit-listrik-mikro-hidro  8. Inzonesia.com  http://inzonesia.com/2018/04/groundbreaking-baznas-undp-resmi-bangun-pltmh-di-jambi/  9. MINA – Mi’raj News Agency  http://www.mirajnews.com/2018/04/baznas-undp-bangun-pembangkit-listrik-tenaga-mikro-hidro-di-pedesaan-jambi.html  10. Peristiwa Jambi.com  http://peristiwajambi.com/2018/04/06/ground-breaking-baznas-undp-resmi-bangun-pltmh-di-jambi/  11. Breakingnews.co.id  https://breakingnews.co.id/read/baznas-resmikan-awal-pembangunan-pltmh-di-jambi  12. The Jak  http://thejak.co/2018/04/pertama-di-dunia-baznas-undp-resmi-bangun-pltmh-di-jambi/  13. VoiceMagz.com  http://voicemagz.com/pertama-di-dunia-alokasi-dana-zakat-untuk-sdgs-lewat-pembangunan-pltmh/  14. Beritasatu  http://id.beritasatu.com/home/baznas--undp-resmi-bangun-pltmh-di-jambi/174170  15. Jurnas.com  http://www.jurnas.com/mobile/artikel/31940/Akses-Listrik-Perbaiki-Kesenjangan-Ekonomi-di-Jambi/  16. Bisnis.com  http://industri.bisnis.com/read/20180407/44/781396/baznas-undp-bangun-pembangkit-listrik-tenaga-mikro-hidro-di-jambi  17. Pena Jambi.com  https://www.penajambi.com/jambi/menahun-tiang-listrik-di-batang-asai-mangkrak-solusi-wagub-ambil-no-hp-saya-sama-ajudan/    Printed Media/News paper  1. 2.500 Desa Tak Ada Listrik, Kompas , P.21,9 April 2018, National, Indonesia  2. BAZNAS-UNDP Bangun PLTMH di Jambi, Harian Pelita, P.21, 9 April 2018, National, Indonesia  3. Jambi Dukung Proyek Mikro Hidro, Bisnis Indonesia, P.9, 9 April 2018, National, Indonesia  4. Untuk Memberi Perbaikan Perekonomian Masyarakat: BAZNAS dan UNDP Resmi Bangun PLTMH di Jambi, Singgalang, P.5, 9 April, 2018, Regional West sumatera, Indonesia      Below is a list of the supporting document uploaded in the PIR system.  Attachments:  1-Electricity production & calculation on emission reduction  2-LOA BPPT  3-Comitment letter from RSUP Dr. Kariadi  4-IGA report RSUP Dr. Kariadi  5-BTOR IGA Dr. Kariadi  6-IGA report of EBTKE building  7a. BTOR IGA Mall Ratu Indah  7b-Full Report IGA Mall Ratu Indah  8-CSA UNDP and BAZNAS  9-CSA UNDP and Bank Jambi  10-DED report Micro hydro  11-Attendance sheets for RUED meetings  12-Draft of Regional General Energy Planning Model  13-Development of Renewable Energy Baseline by GIS for supporting IMSC application  14-Attendance Sheet Data Mapping Tangerang, 17-18 July 2017  15-Attendance Sheet RUED Training, 22-24 August 2017  16-Attendance Sheet RUED Training, Jambi, 3-5 October 2017  17-Attendance Sheet RUED Training, 10-12 October 2017  18-Back to office report RUED Training, 13-16 November 2017  19-Study on-going Indonesia’s Climate Change Registry Initiative in Energy Sector  20-Attendance Sheet Inception Meeting, IMSC Riau, 12-13 July 2017  21-Attendance Sheet Inception Meeting, IMSC Jambi, 19- 20 July 2017  22-Attendance Sheet Inception Meeting, IMSC Mamuju, 1-2 August 2017  23-Attendance Sheet FGD, ISMC Kupang, 29 November 2017  24-Attendance sheet for the coordination meeting  25-Study on IMSC  26-Attendance Sheet FGD, EBTKE CONEX, 15 Sept 2017  27-Brief for meeting UN Resident Coordinator and Minister  28-Meeting summary on CERTIFY  29-CERTIFY Concept note  30-Attendance Sheet FGD, EBTKE CONEX, 14 Sept 2017  31-MTRE3 Presentation on EBTKE CONEX  32-TOR of Financing Mechanisms Workshop  33-Financing Mechanisms Meeting Proceedings  34-Draft report institutional framework of sustainable energy fund  35-Attendance Sheet Financing Workshop 24 April 2018  36-Meeting summary CERTIFY workshop  37-LOA UNDP & P3TEK  38-Advertisement for EPC company on Microhydro Lubuk Bangkar  39-Invitation to Bid for EPC company  40-Grant agreement Desa Air Liki Baru signed  41-Grant agreement Desa Air Liki signed  42-Grant agreement Desa Ngaol signed  43-Laporan PLTMH 2017\_April 2018\_Pemda Jambi – UNDP  44-Commitment letter from RSUP Kariadi  45-Printed screen National Registry System  46- Measurement of CO2 eq reduced against mid-term target (%)  47- Microhydro inauguration news  48- Transmart Saving and CO2 Calculation  49- IGA Report Ravindo  50-IGA Report Transmart  51-IGA Report Pulman Hotel  52- Attendance List Workshop on RE Potential Mapping  53-Draft ToR of Study on MAAC for Four MTRE3 Pilot Province.  54- Final Report Riau  55- Final Report NTT  56- Interim Report  57- U-ME001 Methodology for Calculating Emission Reductions  58- U-ME002 Methodology for Calculating Emission Reductions  59- U-ME003 Methodology for Calculating Emission Reductions  60- UM05 Methodology for Calculating Emission Reductions  61- Pasadena Investment  62- Ravindo investment  63- Pullman Hotel MTRE3 Proponent  64- Detailed Engineering Design Microhydro Renah Kasah  65-ICER Screenshot MoeF Website  66-SDG One\_Value Proposition with Projects  67-Platform and framework SIO |

# Partnerships

**Partnerships & Stakeholder Engagment**

Please select yes or no whether the project is working with any of the following partners. Please also provide an update on stakeholder engagement. This information is used by the GEF and UNDP for reporting and is therefore very important!  All sections must be completed by the Project Manager and reviewed by the CO and RTA.

|  |
| --- |
| **Does the project work with any Civil Society Organisations and/or NGOs?** |
| Yes |

|  |
| --- |
| **Does the project work with any Indigenous Peoples?** |
| No |

|  |
| --- |
| **Does the project work with the Private Sector?** |
| Yes |

|  |
| --- |
| **Does the project work with the GEF Small Grants Programme?** |
| No |

|  |
| --- |
| **Does the project work with UN Volunteers?** |
| No |

|  |
| --- |
| **Did the project support South-South Cooperation and/or Triangular Cooperation efforts in the reporting year?** |
| No |

|  |
| --- |
| **CEO Endorsement Request:** [PIMS 4673 INS MTRE3 CER Document 270616.doc](https://undpgefpims.org/attachments/4673/213480/1668348/1668629/PIMS%204673%20INS%20MTRE3%20CER%20Document%20270616.doc) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| N/A |

# Annex - Ratings Definitions

**Development Objective Progress Ratings Definitions**

(HS) Highly Satisfactory: Project is on track to exceed its end-of-project targets, and is likely to achieve transformational change by project closure. The project can be presented as 'outstanding practice'.

(S) Satisfactory: Project is on track to fully achieve its end-of-project targets by project closure. The project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only.

(MU) Moderately Unsatisfactory: Project is off track and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately.

(U) Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets by project closure. Project results might be partially achieved by project closure if major adaptive management is undertaken immediately.

(HU) Highly Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets without major restructuring.

**Implementation Progress Ratings Definitions**

(HS) Highly Satisfactory: Implementation is exceeding expectations. Cumulative financial delivery, timing of key implementation milestones, and risk management are fully on track. The project is managed extremely efficiently and effectively. The implementation of the project can be presented as 'outstanding practice'.

(S) Satisfactory: Implementation is proceeding as planned. Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. The project is managed efficiently and effectively. The implementation of the project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well.

(MU) Moderately Unsatisfactory: Implementation is not proceeding as planned and faces significant implementation issues. Implementation progress could be improved if adaptive management is undertaken immediately. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are significantly off track. The project is not fully or well supported.

(U) Unsatisfactory: Implementation is not proceeding as planned and faces major implementation issues and restructuring may be necessary. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are off track with major issues and/or concerns. The project is not fully or well supported.

(HU) Highly Unsatisfactory: Implementation is seriously under performing and major restructuring is required. Cumulative financial delivery, timing of key implementation milestones (e.g. start of activities), and management of critical risks are severely off track with severe issues and/or concerns. The project is not effectively or efficiently supported.