

2019

Project Implementation Review (PIR)

**State Action Plans**

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# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 4606 |
| GEF ID | 5361 |
| Title | Market Transformation and Removal of Barriers for Effective Implementation of the State Level Climate Change Action Plans |
| Country(ies) | India, India |
| UNDP-GEF Technical Team | Energy, Infrastructure, Transport and Technology |
| Project Implementing Partner | Government |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| India launched its National Action Plan on Climate Change (NAPCC) in June 2008. NAPCC represents a multi-pronged, long-term and integrated strategy for achieving key climate change goals for the country: namely, “achieving national growth objectives through a qualitative change in direction that enhances ecological sustainability, leading to further mitigation of greenhouse gas emissions”, and “devising efficient and cost-effective strategies for end-use demand-side management”. The plan identifies eight core “national missions” running through 2017. These eight missions focus on enhancing energy efficiency; increasing the penetration of solar in the total energy mix; developing climate friendly sustainable habitats; a water mission for integrated water resources management; a mission on sustainable agriculture for making it more resilient to climate change; a green India mission for enhancing ecosystem services of forests and for enhancing its carbon sequestration capacity; a mission on Himalayan ecosystem for sustaining and safeguarding the Himalayan glacier and mountain ecosystems; and the last mission is aimed towards developing strategic knowledge base to address the concerns of climate change.    The NAPCC encourages planning and coordination at different levels, especially state (sub-national) level. As of March 2015, 22 states and Union Territories of India have completed their State Level Action Plans on Climate Change (SAPCCs), which define state-level objectives and strategies that are aligned with the objectives of the NAPCC.    At the sub-national level, state governments are responsible for developing state-specific action programmes for the power, transport, industry, buildings and municipal energy efficiency and forestry sectors in line with the NAPCC. There is a need to have greater synergy between national priorities and state-specific strategies, as it requires actions in several sectors that are State subjects and have to be implemented in the States.    The proposed project aims to transform the market and remove the barriers to effective implementation of the State-Level Climate Change Action Plans with an overall goal to reduce GHG emissions achieved through implementation of RE and EE solutions at the state level as identified in the SAPCCs of the two states. The development objective of the project is to support the effective implementation of specific energy efficiency and renewable energy climate change mitigation actions identified in the State Level Action Plans on Climate Change for Jharkhand and Manipur.    Component 1 of the project deals with the development of framework for the effective implementation of climate change mitigation options in the SAPCCs. Under this component, project will work with selected states and develop an implementation and MRV framework, which can be shared with other states. The Component 2 focuses on catalysing investments for the application of feasible CCM measures. Under this component, the project will focus on catalysing the investments from both public and private sector stakeholders. Component 3 deals with the capacity development of relevant state government officials in selected states (Jharkhand and Manipur).    The project interventions, over its useful lifetime, are expected to save 31.97 million MWh of electricity. The expected cumulative direct and indirect emission reductions will be 31.20 million tCO2. |

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| **Project Contacts** | |
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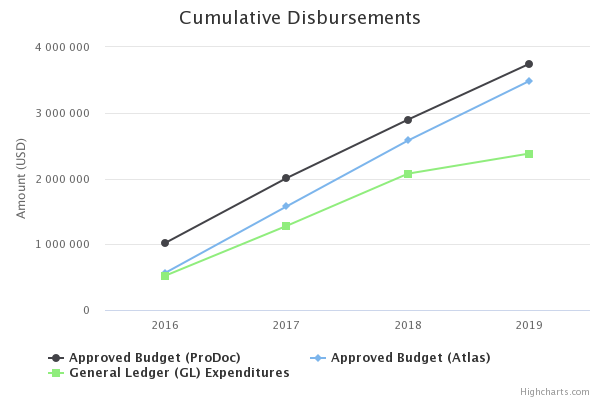
# Overall Ratings

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| Overall DO Rating | Satisfactory |
| Overall IP Rating | Satisfactory |
| Overall Risk Rating | Moderate |

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **To support the effective implementation of specific energy efficiency and renewable energy climate change mitigation actions identified in the SAPCCs for Manipur and Jharkhand** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Total energy savings achieved from implemented RE and EE mitigation actions by EOP, MWh    Total installed capacity of RE systems (MW) by EOP    Number of people that benefitted directly or indirectly with improved energy access in the two states through the project interventions by the EOP (million). (This includes, improved job opportunity, quality of life and education.) | 0        0        0 | *(not set or not applicable)* | 190,452        28        17.8 | Estimated energy saving is 24,585 MWh through various RE and EE measures implemented in government buildings, institutions and MSME, public buildings, agriculture sector etc. However, more accurate saving will be calculated on the bases of M&E reports of implemented activities.    Total 10.6 MW.    - Through direct project intervention 1.01 MW of solar installation has been achieved. This includes rooftop solar (RTS) on health centers, RTS on schools, solar cold room and solar mini grid.  -Through technical support provided by the project, Jharkhand Government has installed 9.4 MW of RTS in public buildings leveraging government funds.  Till date , it is estimated that 50 thousand people in 478 public buildings and 14 public schools have been benefitted | Cumulative energy saving is 29,785 MWh with saving of 5,200 MWh over the last reporting period achieved through solar installations in institutional sector, health care facilities, Commercial and industrial sector, residential sector, public buildings, solar cold storages and mini grids.  Total 15.1 MW  4.5 MW added over this reporting period which includes:    - Rooftop solar in institutional sector: 0.677 MW  - Rooftop solar in health care facilities: 0.71 MW  - Commercial and industrial sector: 0.087 MW  - Residential Sector: 0.112 MW  - Public Buildings: 2.39 MW  - Rural Mini/micro grid: 0.017 MW  - Solar cold storage: 0.1 MW      Around 55,000 (estimated).    Final estimation will be undertaken by EoP when all the RE/EE applications are installed and being used by communities. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 1**  **Successful and sustainable implementation of priority CCM actions on energy generation and application of EE & RE technologies in the major energy end-use sectors in selected states** | | | | | | |
| **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 CCM actions implemented by the project in the states by EOP. | 0 | *(not set or not applicable)* | 9 | 9 Mitigation actions finalized and feasibility reports have been prepared for following  - EE buildings  - RTS schools  -EE schools  - Solar Cold Room  -Solar micro grid  - EE public building  -RTS PHC/CHC  - EE municipal pumps  - EE/RE agriculture | 7    Seven Mitigation actions implemented are listed below:  1. Rooftop Solar in institutions/ schools: 34 private institutions across Jharkhand implemented solar PV through technical assistance by the project which includes their solar assessment, DPR preparation and support to each institution for availing central and Jharkhand state subsidy.  2. Rooftop solar in CHCs/Public buildings: 47 KWp capacity was installed across 7 CHCs in Jharkhand through project technical assistance. In 2019 Jharkhand Renewable Energy Development Agency (JREDA) will solarize around 69 CHCs in Jharkhand under the state scheme.  3. Rooftop solar in commercial and industrial consumer segment (plus enabling financing across all consumer categories): Two MSME units have installed 64kWp of SPV plant with the support of the project for solar assessment and DPR preparation on CAPEX mode.  4. Solar Cold Room: With the support of the project farmer producer company (FPC) named Aragaro Fruit and Vegetables Company Producer Limited in Koderma district of Jharkhand installed the first solar cold room in the state. Jharkhand energy department has approved installation of 24 solar cold rooms and project is supporting JREDA with tendering, procurement, training and installations.  5. Solar mini grid: Commissioning of 17 KW Mini Grid at Village Garo, Chatra done. Interest for around 200 decentralized RE applications have been obtained. Project is providing TA to Jharkhand State Livelihood Promotion Society (JSPLS) on identification and implementation of DRE applications.  6. Energy Efficiency in public building: 13 bankable DPRs prepared. BMIS and EE measure implemented in Van Bhawan Ranchi and two more are being implemented by JREDA (Project Building and Nepal House in Ranchi).  7. Energy Efficiency in conventional cold storage segment: Detailed energy audits of 10 cold storages were undertaken. Energy conservation measures in 2 units are being implemented by JREDA. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **Enhanced states capability and capacity for identifying, designing, planning, financing and implementing selected RE and EE actions from their SAPCC** | | | | | | |
| **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 locally designed, planned and financed RE and EE projects implemented in the states by EOP | 0 | *(not set or not applicable)* | 9 | The following 8 activities were finalized after detailed assessment and have been implemented as investment demonstration under this project:  I. RTS schools: Through the project solar assessment of 180 schools in Jharkhand was carried out. It was observed that schools have average potential of around 10 KW of RTS installation. School management was reluctant for solar installation due to high initial setup cost. In order to tap the potential, the project worked with JREDA to leverage viability gap funding through central government schemes. A scheme was designed and advertised for solicitation of interest from the schools. The scheme generated interest of 1 MW from the school segment. Till date 400 KW of RTS has been installed and another 600 KW is in progress.  II. EE schools: Study carried out across 180 private schools indicated saving potential to the tune of 20-25%. Along with RTS installations schools are also implementing EE measures in their premises with technical support from the project.  III. Solar Cold Room: The project demonstrated an innovative model of RE use in the agriculture sector. A solar cold room was designed and installed which is now being used by farmer producer organisations. The project is partnering with NABARD and state agriculture department to upscale the model among other 80 farmer producer organization. The state government has already shown interest to invest in the upscale model.    IV. Solar micro grid: The project supported the state government to design and implement 17 KW solar grid. The project is expected to be upscaled by JREDA based on the model demonstrated. There are 12,15,856 households across 5150 villages which are without grid connectivity. To fill this huge gap the project is working with the private sector to set up micro/mini solar grids/ RE based enterprise throughout the state.  V. EE public building: Assessment of 13 govt. buildings in Jharkhand has been completed. Implementation planned through ESCO modality.  VI. RTS PHC/CHC: 60 KW RTS installation completed through project support. JREDA will implement another 540 KW of RTS in 2018 in this segment.  VII. EE municipal pumps: EE DPRs were prepared under the project. State department is implementing the DPR through EESL.  VIII. EE/RE agriculture: Detailed assessment of agriculture was carried out through the project. Following this JREDA has come up with a tender to install 4000 solar pumps throughout the state. | 9  The cumulative progress will exceed, as the above target has been achieved in Jharkhand State only.  I. Rooftop Solar in institutions/ schools: 1.36 MW of solar installation achieved on CAPEX mode under this sector with 30 % subsidy through central financial assistance and additional 20 % subsidy by the state government. Another 326 kW installed on OPEX mode.  II. Rooftop solar in CHCs/Public buildings: 0.71 MW in the health sector facilities and 2.39 MW of solar installation in public buildings have been achieved in Jharkhand under the state solarization scheme. Jharkhand government is further exploring solar installations on RESCO modality with support from the project.  III. Rooftop solar in commercial and industrial consumer segment: The project enabled solar installation of 0.087 MW by providing technical support to beneficiaries. Further, it supported in leveraging low cost loans for RE implementation from SIDBI. Key RE lending banks in Jharkhand are State Bank of India, Punjab National Bank, SIDBI and Yes Bank. These banks benefited from the pipeline for potential consideration of concessional lending. A workshop targeting …. Institutional and Industrial sector and Banks is planned for Sep’19 as part of awareness creating activities  IV. Solar Cold Room: Jharkhand government has approved installation of 24 more cold rooms in the state based on the successful demonstration. Forest department is also supporting installation of 6 more cold rooms. Project will continue to provide its support for further upscaling.  V. Solar micro/ mini grid: The pilot solar mini-grid at Garo Village currently provides basic energy needs for lighting. For its replication and scaling up, a series of bootcamps were organized, over 200 interests from entrepreneurs have been registered for solar based enterprise activities. Model bankable DPRs have been developed. During the second half of 2019, support for fund mobilization will be provided.  VI. Energy Efficiency in public building: Building management intelligent system and various energy conservation measures have been showcased in the office building of Forest Department- Jharkhand (Van Bhawan, Ranchi). Further Jharkhand has also taken up implementation of the DPRs developed under the project for I. Nepal House and II. Project Building, Ranchi. Project is also supporting energy audit and EE implementation of Governor House in Jharkhand. The project plans to accelerate implementation through support of Bureau of Energy Efficiency and Energy Efficiency Services Limited. Implementation through private ESCO is also to be demonstrated.  VII. Energy Efficiency in conventional cold storage segment: Detailed assessments of 11 cold storages were taken up with JREDA and 2 DPRs prepared with financial support of INR 10,00,000 from BEE. The success of Solar cold room pilot is leading to of the overall solar cold chain strengthening in the State of Jharkhand.  VIII. Energy Efficiency in municipal pumps: Energy audit of 23 municipal pumping stations in Ranchi and Dhanbad was carried out under the project in Jharkhand. EESL is now supporting the state on this initiative.  IX. Solar pumps: Based on report on solarization of agriculture pumps, the project supported JRDA in tendering process and in final procurement and installation of 1500 solar pumps. Interest for solar pumping as service has also been received and project will provide TA for implementation and upscaling of this activity. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 3**  **Enhanced technical capability of state government in integrating climate change concerns within state sectoral development plans and budgets and undertaking MRVs efficiently for SAPCC actions, facilitated inter-state learning and coordination for SAPCCs** | | | | | | |
| **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 sectoral state budgets for RE and EE activities that are aligned with the budgets proposed under SAPCCs by Year 2 | 0 | *(not set or not applicable)* | 2 | The project has helped state government of Jharkhand to allocate resources in the sectoral budget. The Jharkhand, Forest and Environment department has allocated budget for taking up climate change activities. | Energy Department of Jharkhand, in 2018, has sanctioned an amount of US$ 500,000 for solar cold room installation in the state. Further, Bureau of Energy Efficiency (BEE) has allocated an amount of US$ 14,000 to JREDA for EE implementation in cold storages.  Project is facilitating revision of Jharkhand State Action Plan on Climate Change. In the revised state action plan on climate change, state departments are allocating sectoral budget for mitigation actions. |
| **The progress of the objective can be described as:** | | **On track** | | | | |

# Implementation Progress



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| Cumulative GL delivery against total approved amount (in prodoc): | 63.55% |
| Cumulative GL delivery against expected delivery as of this year: | 63.55% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 2,379,675 |

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| **Key Financing Amounts** | |
| PPG Amount | 150,000 |
| GEF Grant Amount | 3,744,500 |
| Co-financing | 25,000,000 |

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| **Key Project Dates** | |
| PIF Approval Date | Mar 21, 2014 |
| CEO Endorsement Date | Sep 17, 2015 |
| Project Document Signature Date (project start date): | Jan 20, 2016 |
| Date of Inception Workshop | Mar 16, 2017 |
| Expected Date of Mid-term Review | Oct 1, 2018 |
| Actual Date of Mid-term Review | *(not set or not applicable)* |
| Expected Date of Terminal Evaluation | Oct 20, 2019 |
| Original Planned Closing Date | Jan 20, 2020 |
| Revised Planned Closing Date | *(not set or not applicable)* |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2019-05-03 |

# Critical Risk Management

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| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Operational | The project implementation in Manipur was on hold till April 2019 due to lack of approval for implementation of project activities in Manipur from Local Project Appraisal Committee (LPAC) putting project on high risk.  During the initial three LPAC meetings held in 2017 and 2018 the project could only manage to get approval for the implementation of activities in Jharkhand. In the fourth LPAC meeting held in May 2019, implementation of activities in Manipur was also approved.  The delay in implementation approval for the Manipur component has cascading effect on the overall project. In one state (Jharkhand) the project is likely to achieve the development objective by the planned end date whereas achievement of the development objective will be delayed in Manipur.  To address the risk of delay, the PMU identified the activities, undertaken initial consultation with state departments and sought state’s inputs on the Terms of Reference for most of the activities. As soon as the project received approval for Manipur, ToRs were launched and now studies/activities have been initiated. The project will seek extension accordingly to complete the activities in Manipur. |

# Adjustments

**Comments on delays in key project milestones**

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| **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.** |
| The project had a good start with national level inception and with required ownership at national and state level. However, approval for implementation from DEA-Ministry of Finance through a Local Project Appraisal Committee wherein DEA advised the project to seek no objection from 5 different Ministries for implementation as it is one of the North Eastern States requiring additional approvals.. This was unprecedented and took lot of time to secure no objection from 5 different Ministries. Since the project could only start in November 2017, the Mid term Review was delayed. |

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| **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 of the project got delayed. Although there is no direct link between the progress of the project and schedule of the midterm review, but it was considered appropriate to undertake the MTR with some traction on ground so that the project implementation by the partners is taken on priority. |

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| **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.** |
| Above reasons for delay noted. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | Satisfactory rating is because the project has been successful in achieving the intended development objectives and lot of interest towards implementation of climate change mitigation activities in Jharkhand.  This project has the following key components:  a. Framework for the implementation of climate change mitigation options in Action Plan on Climate Change (SAPCCs) for the project states  Most of the activities of the first component were taken up in 2016-17. MACC tool was developed and implemented to priorities the RE/EE actions. Based on the MACC analysis energy efficiency activities in MSME sector was taken up in Jharkhand.  b. Catalyzing investments for implementation of selected RE and EE mitigation action  The major focus in previous reporting cycle, under the second component, was on potential assessment and DPR preparation. However, the focus during this reporting cycle has been on financing and implementation of the finalized mitigation activities. Key interventions undertaken during this reporting period are discussed below:  Solarization in institutional sector: During the previous year solar assessment of 180 private institution was carried out. 1.69 MW of solar installation has been achieved in institutional sector through the project intervention and JREDA has been able to utilize its central subsidy for the first time. These implementations have been done by 34 private institutions on CAPEX mode with central and state financial assistance. JREDA did not had any success in the sector before the project intervention. An amount of 1.4 million USD has been mobilized in the sector. Finance mobilization for RE implementation is a major barrier in the state and the project is supporting both beneficiaries and financial institutions to overcome this limitation through demand aggregation and awareness creation.  Solarization in MSME sector on market mode: In the MSME sector with the technical support of the project two units have installed 72 kW of RTS on market mode with funding from SIDBI. In line with the project mandate and with TA from the project financial barrier towards RTS installation has been overcome by these units. Project is aggregating requirement in the sector for scale up. Leading banks in Jharkhand are keen to fund such interventions and need support of the project for demand aggregation.  Clean energy and livelihood: Project is working to leverage innovative financing for promoting renewable energy-based livelihood activities in rural and peri urban areas of the state. Through a series of boot camps 200 such interests have been registered and the project has achieved active support from Jharkhand State Livelihood Promotion Society for financing and implementation of such interventions. 27 DPRs have been prepared to support DRE implementations.  Cold chain strengthening: Out of the 11 DPRs prepared through the project for renewable energy and energy efficiency implementation on the existing cold storages in Jharkhand, during the previous reporting period, JREDA has taken up two DPRs for implementation with financial assistance from BEE. Further, 24 solar cold rooms have been approved by Energy Department of Jharkhand for implementation and Forest Department will also take up installation of 6 more solar cold rooms.  EE in public buildings: The first Building Management Intelligent System (BMIS) and energy conservation measures were implemented in Van Bhawan, Forest Department office building in Ranchi. JREDA has taken up implementation of 2 DPRs of Nepal House and Project Building out of 13 energy efficiency DPRs prepared under the project for implementation. Project is also providing technical support for RE and EE implementation in Governor House building in Ranchi.  EE in MSME sector: Energy audit of 120 MSME units have been completed. Energy efficiency awareness in Jharkhand MSME sector is very limited. Through these audits it has been observed that there is significant energy saving potential through simple interventions like energy efficient lighting, PF correction, energy efficient motors, variable frequency drives-VFDs and thermal insulations. These are low cost interventions with payback between 2-3 years. Project will address these issues through a series of awareness and dissemination workshops. RFP for supporting MSME Energy Efficiency financing has been floated and project will facilitate EE financing support in the sector from Sep’19 onwards.  c. Capacity development of concerned state level officials for implementation of respective SAPCCs  Under the third component of the project support is being provided to the state government of Jharkhand for revision of state action plan on climate change. This revision is being done through close consultation with forest department (the state nodal agency) and line departments of the Jharkhand government.  In the fourth Local Project Appraisal committee(LPAC) meeting held on 15th May 2019 approval was accorded for implementation of the project in Manipur. During this reporting period solar assessment of 180 private institutions in Manipur was carried out now the project is supporting Manipur Renewable Energy Development Agency with rooftop solar installation in the institutional sector. Project is also supporting the Manipur government to promote e-mobility in the state.  Overall satisfactory based on the revised timelines accorded to the project after receiving implementation approvals. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Satisfactory | Satisfactory |
| Overall Assessment | The level of achievement of the project development objective is not the same for both the states. Jharkhand has progressed well, even when the LPAC approval got delayed by one and half year, whereas Manipur has not progressed well towards achieving this objective due to delay in implementation approvals.  The project has been successful in achieving the intended development objectives in Jharkhand i.e support the effective implementation of specific energy efficiency and renewable energy climate change mitigation actions identified in the State Level Action Plans on Climate Change.  However, as Manipur component of the project has now been approved for implementation, the activities have just started and is expected to achieve the development objective if more time is granted as per recommendations of the MTR.  Jharkhand:  In last one year, the project has strengthened state capacities to coordinate with other departments like agriculture/health/education/horticulture/rural development/MSME etc; assess potential and develop DPRs jointly and; implement DPRs that support implementation of mitigation actions proposed in SAPCC.  The Jharkhand state action plan has identified number of actions in the energy sector, the project has supported implementation of these energy efficiency and renewable energy climate change mitigation actions.  Actions proposed on Renewable Energy in SAPCC are related to building resilience in the agriculture sector, clean energy for rural communities, decentralized RE power generation. The project has been successful in supporting implementation of mitigation actions like deployment of solar powered cold storage to build resilience of the agriculture sector; deployed off grid solar for rural communities and linked market for solar power generation in the institutional sector like schools, health centers.  Actions proposed on Energy Efficiency in SAPCC are related to bringing energy efficiency in the MSME, building sector, agriculture sector. The project has successfully implemented energy efficiency interventions in the MSME sector through investment grade energy audits, introducing building management intelligent system and assessment of potential for solar pumps to support government programmes.  The Mid Term Review of the project has highlighted that it has produced number of achievements and has been able to adapt to evolving circumstances and respond to emerging challenges. The MTR report states that “the project has focused on prioritizing suitable technology options for the Jharkhand state, developing investment-ready proposals, mapping opportunities for financing clean energy projects, budgeting for climate change concerns and faciliting the discourse on clean energy.” MTR also recognizes that “the project’s logic is not based on solving specific problems in a one-off manner, but by training the necessary personnel to develop the skills necessary to provide a long-term solution.”  The project has been successful in creating necessary framework, marginal abatement cost curve tool, for prioritizing and selecting climate change mitigation actions listed in the state action plan on climate change. Key activities selected included RE and EE promotion in public buildings, institutional sector and MSME sector along with decentralized RE solutions for enterprise and livelihood activities. The government is planning to scaleup project interventions through government funds and build linkage with private sector. In the agriculture sector the Government has already announced their intention to deploy nearly 130 cold storages. In the institutional sector government is supporting schools to install solar power. The MSME sector is negotiating with the banks based on the DPRs developed under the project. The project components, in Manipur, have just started after receiving approval from DEA in May 2019. | |
| **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** | Satisfactory | Satisfactory |
| Overall Assessment | The overall project objective is to transform the market and remove the barriers for effective implementation of specific energy efficiency and renewable energy climate change mitigation actions identified in the State Level Climate Change Action Plans (SAPCCs) for the Indian states of Manipur and Jharkhand. During the reporting period, the project has continued with holistic approaches to mitigation actions by integrating with other sectors and synergized activities with other ongoing and new initiatives launched in the areas of energy efficiency and renewable energy at the national and State levels. The differential progress at the State levels has been on account of the delayed approval for implementation in Manipur State in May 2019 (as reflected in the risks). The project however is set for expedited implementation and the learnings from Jharkhand is expected to facilitate efficient implementation in the remaining project period and may seek extension as per the recommendations of the draft MTR report received in July 2019.    At the objective level, the project has achieved a cumulative energy saving of 29,785 MWh against the EoP target of 190,452 MWh, which is only 15.6%. Similarly, with the other indicators the project reports 15.1 MW cumulative RE installed capacity (53.9 % of EoP target) and 55000 beneficiaries with improved energy access (less than 1% of the EoP target). The project team needs to identify various other RE and EE initiatives under the SAPCCs especially in Manipur so that the EoP targets are fully achieved. Considering these shortfalls but the overall positive development of getting implementation approval for Manipur and significant progress achieved in Jharkhand with financial delivery of 63.54%, the DO rating for the project can be Satisfactory (S).    Outcome wise progress noted are as follows:    Outcome 1: Successful and sustainable implementation of priority CCM actions on energy generation and application of EE & RE technologies in the major energy end-use sectors in selected states (On track)  The project has steered seven CCM activities against the EOP target of realizing nine CCM actions, These include: (RTS schools/ institutions, RTS PHC/CHC, RTS in commercial and industrial consumer segment (plus enabling financing across all consumer categories), Solar Cold Room, Solar mini grid, EE public building, EE conventional cold storage segment. Hence this outcome is considered on track.    Outcome 2: Enhanced states capability and capacity for identifying, designing, planning, financing and implementing selected RE and EE actions from their SAPCC (On track)  The project has reported good progress through evidence based climate mitigation actions accompanied by other barrier removal activities. Specific CCM activities also linked to Outcome 1 include: i) setting up of 1.69 MW RTS in institutions/ schools; ii) 0.71 MW of RTS in the health sector facilities and 2.39 MW of solar installation in public buildings; iii) 0.087 MW RTS in commercial and industrial consumer segment; iv) Approval for replication of installation of 24 more cold rooms in the state. In addition, Forest department is also supporting installation of 6 more cold rooms; v) Approx. 200 number of interests from solar based enterprise activities in Solar micro/ mini grid segment registered; vi) showcased building management intelligent system and various energy conservation measures in the office building of Forest Department- Jharkhand (Van Bhawan, Ranchi; vii) 11 cold storage assessment were taken up under EE in cold storage segment; viii) linking to EESL on EE in municipal pumps; ix) tendering and procurement of 1500 solar pumps (500 pumps have been installed) by JREDA x) a study on solarisation of agricultural pumps. The project is further providing technical support to beneficiaries for leveraging low cost loans for adopting RE applications and supporting the upscaling of the initiatives, organizing boot camps, developing model bankable DPRs, supporting energy audit and EE implementation and planning. While all these activities have been implemented in Jharkhand, these would be adapted for implementation in Manipur State.    Outcome 3: Enhanced technical capability of state government in integrating climate change concerns within state sectoral development plans and budgets and undertaking MRVs efficiently for SAPCC actions, facilitated inter-state learning and coordination for SAPCCs (On track)  The Energy Department of Jharkhand has sanctioned US$ 500,000 for solar cold room installation in the state. Additionally BEE has also allocated US$ 14,000 for EE implementation in cold storages. Project is also facilitating revision of Jharkhand SAPCC to encompass the budget for each of the key actions with high priority for mitigation actions and identify sources of funding keeping into consideration the state budget and budgetary provision under Central Government Scheme and external aid.    Considering holistic approaches adopted for implementation of project activities, the Outcomes can be considered “on track” even if the physical progress has been restricted to Jharkhand only. The State of Manipur has already geared up with the preparatory technical support work and is expected to expedite implementation of the identified CCM actions. However, it might be challenging to compress all the activities in Manipur in less than one year remaining as per original project end date and hence, the extension of the project by an appropriate period may be considered for overall successful impact of the project. In terms of the critical risk, the project has managed successfully by obtained clearance for implementation of the project components in Manipur State. In terms of financial delivery, the project has achieved 63.54%.    Hence, the ratings for DO and IP are Satisfactory are justified and match the CO ratings. | |

# 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.

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| **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)* |

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| **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: Yes |
| Improving the participation and decision-making of women in natural resource governance: Yes |
| Targeting socio-economic benefits and services for women: Yes |
| Not applicable: No |

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| **Atlas Gender Marker Rating** |
| **GEN1:** some contribution to gender equality |

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| **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)* |

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| **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 activity on ‘Promoting Renewable Energy Based Livelihood Activities in Jharkhand through Innovative Financing Mechanisms” has a specific gender focus. Out of 120 planned interventions as part of this activity, 30% or above will be to support women entrepreneurs.  During the boot camps organized for the identification of entrepreneurs, many of the business verticals like Rice huller, leaf plate making machines, flour mills etc. found interest amongst women target groups. They expressed interest to establish sanitary pad manufacturing units for the benefit of rural women. It was identified that the units would manufacture reusable sanitary pads which besides being environmental benign would help to ensure menstrual hygiene at very less cost. This idea of RE integration has found acceptance amongst all the stakeholders including UNDP and Jharkhand State Livelihood Promotion Society (JSLPS). . In order to develop a market for the products the project along with JSLPS will approach the local administration to identify schools where the reusable sanitary produced would be supplied, on behalf of local administration, for further distribution to adolescent school attending girls  Project is supporting JSLPS to rejuvenate sewing centre in Ramgarh which was earlier being developed as a sewing centre as well as sanitary pad making unit. The centre, however, could not be developed properly due to lack of proper electricity supply. The project is helping the SHG operating the centre by providing all technical and convergence support, (including development of the DPR) for the establishment of solar generation plant and electric based sewing machine.  Similar support through the project will be provided to two more units each in Patratu and Mandu blocks. Both these centres would be developed on similar line.  It is envisaged that this business vertical would have a far-reaching impact. It will ensure increased income of the women members of the SHGs. It would also ensure positive impact on the health of adolescent school going girls. The project has environmental benefits too as the energy used by the centre would come from renewable source, the reusable pads would also reduce the amount of non-biodegradable waste and the overall carbon footprint of the product would be negligible. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| The project contributes to women empowerment with several of the climate actions integrated women’s livelihood activities. The activities designed around enterprise and livelihood promotion ensures 30 % or more women representation. Mandate of the project is to facilitate implementation of climate change mitigation actions identified in the state action plan of Jharkhand and Manipur. Due to the very nature of the project, its activity will have equal gender impact. The project is contributing towards reducing energy deficit through RE and EE interventions. The project is supporting implementation of decentralized renewable energy (DRE) based livelihood activities. These activities will not only reduce women drudgery but will also help them to enhance their income. The project is helping Jharkhand State Livelihood Promotion Society by integrating renewable energy into their women empowerment activities. Solarization of women SGH owned grain/pulse processing units and sanitary pad manufacturing units is one such intervention being supported through the project. Due to these RE interventions processing and manufacturing units run by women SHG will have reliable clean energy supply to run their units. There will be direct saving on energy cost, increased hours of operation and hence production ultimately resulting into enhanced income. Further the project will also work with banks and financial institutions to fund such interventions. |

# 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.

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

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| **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.** |
| *(not set or not applicable)* |

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| **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 |

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| **If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.** |
| *(not set or not applicable)* |

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| **SESP:** *not available*  **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)* |

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| **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 |

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| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| *(not set or not applicable)* |

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

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| **If yes, please describe the complaint(s) or grievance(s) in detail including the status, significance, who was involved and what action was taken.** |
| *(not set or not applicable)* |

# Communicating Impact

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| **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.)** |
| Learning with Fun  Students of St. John’s School, Ranchi are excited and proud of their school now and so is the school management. The concept which was just a complicated and neglected part of the science book has now been realized on the school terrace. Yes, the school now has got its own 40 kWp solar power plant which is enough to meet its power requirement and the school now is saving 97 % of its energy expense.  Chapters on solar energy, solar power generation, carbon foot printing and sustainability are no more taught in closed classrooms. Rather these compacts are being practically imparted to the young minds on the school terrace. Kids are learning better and teachers are excited teaching this way.  Fr. Florence Kajur, the principal was longing to get his school solarized since years but did not know how to do it. He is thankful to UNDP for its handholding. Now that he has got his school solarized, he is also supporting other schools in his group in their solarization.    Cold Room ….Hot Income  One more frustrating day for Ajay, a marginal farmer from Koderma district of Jharkhand. Ajay could not fulfill an order for supply of 100 Kgs beetroot from one of his customers. That morning only Ajay had to throw away 100 Kgs of rotten beetroots which he was not able to sell in the market.  Ajay and his family grow and sell vegetables to make their leaving. Although Ajay is able to generate decent income but due to lack of proper storage facility there is host harvest loss of around 20%. Not only is this a direct loss to him but he is forced to sell his vegetable at low price another loss to his income.  With support from JREDA and UNDP Ajay has formed an FPC named Aragaro Fruit and Vegetables Company Producer Limited. The project has supported this FPO with installation of 5 Metric Tone solar powered cold room. This FPO has now found a means to reduce their post-harvest loss and command better price for their produce in the market. This FPO now stores potatoes to be used as seed for the next sowing season thus they are saving Rs. 100-150 per Kg on the seed. Also, the member farmers of the FPC have been able to increase the revenue by timing the market better after arrival of solar cold room. Members of the FPC sowed beetroot in the last kharif season and at the time of harvest the market rate was around INR 15 per kg of produce, which was lower than the market average. The members of the FPC decided to store the produce and to wait for the prices to go up. The cold room helped them defer their sale and reaping a significant 100% gain on selling price as they sold the beetroot at a price of INR 30 per kg.  The FPO now is enjoying better income and less post-harvest wastage. |

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

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| **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.** |
| SAMEEEKSHA is a collaborative platform aimed at pooling the knowledge and synergizing the efforts of various organizations and institutions – Indian and international, public and private – that are working towards the common goal of facilitating the development of the SME sector in India through the promotion and adoption of clean, energy efficient technologies and practices.  In March 2019 issue the magazine has covered the GEF-funded project titled ‘Market Transformation and Removal of Barriers for Effective Implementation of the State-Level Climate Change Action Plans’ . Link of the same is given below:  http://sameeeksha.org/newsletter/newsletter\_mar19.pdf |

# 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.

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

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| **Does the project work with any Indigenous Peoples?** |
| Yes |

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

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

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

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

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| **CEO Endorsement Request:** [PIMS 4606 CEO ER SAPCC 27Aug15\_Final for submission.docx](https://undpgefpims.org/attachments/4606/213421/1665905/1666186/PIMS%204606%20CEO%20ER%20SAPCC%2027Aug15_Final%20for%20submission.docx) |
| **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.** |
| Private sector engagement for transition from grant-based financing to non-grant was undertaken through institutionalisation of tailored market-based instrument, creation of enabling market ecosystem and boosting private sector confidence during this reporting period.    The project supported implementation of 1.3 MW of grid interactive rooftop solar across 35 private school through investment of nearly 1 Million USD by the private sector. The project supported development of private institution network and supply chain; commissioning of customised feasibility assessment across hundred eighty institutions coupled with sensitisation; converging of GoI grant with viability gap financing from the project.    MSME units were engaged for adoption of Energy efficiency measures including technology upgradation and mobilisation of concessional debt. Commissioning of Energy Audit and Renewable Energy Feasibility study across 120 units and support to the units have led installation of 70KWp of RTS installation in two MSME units.    TATA group was roped in for its auto-ancillary units of Jamshedpur. Capacity of auto-ancillary MSME built in collaboration of industry association like JSIA (Jharkhand Small Industry Association) and ASIA (Adityapur Small Industry Association) and partnering with GoI -MSME bodies in the state , JREDA and financial institutions like SIDBI and PNB. |

# 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.