**Basic Data / Basic Project & Finance Data**

***Basic Project Information***

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| **PIMS ID** | 740 |
| **Project Title** | **Removal of Barriers to Biomass Power Generation in India, Phase I** |

***Project Contact Information***

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| **Role** | **Name** | **Email Address** |
| **Project Manager/Coordinator** | Mr. V K Jain | jainvk@nic.in |
| **UNDP Country Office Programme Officer** | Dr S N Srinivas | sn.srinivas@undp.org |
| **GEF Operational Focal Point (OFP)** | Mr. Shashi Shekhar, IAS | shashi.shekhar@nic.in |
| **Project Implementing Partner** | Mr. Alok Srivastava, IAS | srivastava.alok@nic.in |
| **Other Partners** | N/A | N/A |

***Finance***

[Will be automatically uploaded to each PIR by end June. No input required. Data to be uploaded: GEF Grant Amount; PPG Amount; Total GEF Grant; Co-financing; Total GEF Grant Disbursement as of 30 June]

***Project Milestones and Timeframe***

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| **Revised planned closing date** | March 2016 |

***Project Supervision***

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| **Dates of Project Steering Committee/Board meetings during reporting period (30 June 2013 to 1 July 2014)** | 12 March 2014 |

***Terminal PIR***

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| **Is this the terminal PIR that will serve as the final project report?** | No |

***General Comments on Basic Data***

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| Please insert any comments to the finance data here. |
| N/A |

**Development Objective Progress / Progress Toward Development Objectives**

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| **Objective / Outcome: Description of Objective / Outcome** | **Description of Indicator** | **Baseline Level** | **Target Level at end of project** | **Level at 30 June 2014** |
| Overall project goal [impact]  To improve electricity supply without increasing GHG emissions through wide scale application of biomass energy technologies | Extent of supply and energy needs met by biomass power projects, reduction of CO2 emissions. By end of project additional MIPs up to 12 MWe of biomass power installed. |  | End of Project [EOP] target 2016: 18 MW supported for fuel linkage to existing biomass power plants.  Additional green field 12 MW cumulative capacity MIPs implemented.  Approx.. 167,000 tCO2 reduced during project duration from green field projects and over 1.82 million tCO2 over lifetime of all MIPs implemented under project | **16.5 MW supported for fuel linkage to existing power plants.**  **1.2 MWe green field biomass power plants implemented by Ankur Scientific in Gujarat.**  **The above plant has run between Aug 2011 and November 2013. It generated 6,484,202 kWh from greenfield projects. This translates to 6,350 tCO2.** |
| Objective: To accelerate the adoption of environmentally sustainable biomass power technologies for captive and distributed biomass materials in niche areas, through demonstration of project development models and establishment of sustainable business/support services network and undertaking enabling activities for removal of the key barriers. | Rate of commercial adoption of sustainable biomass power technologies in key states in India | No Model Investment Projects exist | By the end of Phase 1, 7 MIP’s contracted covering co generation, gasification and combustion technologies in 3-5 different states in India  Total 30 MW  Fuel linkage support to existing biomass power plant in 18 MW.  Small capacity 1 to 3 MW each Green field MIP‟s cumulating upto 12 MW  [This is in addition to  already implemented MIPs  (Both green field and biomass fuel linkage based)  Support for Fuel linkages: (Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW; SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW; Completed MIPs (MPPL - Muktsar – Biomass Combustion, 7.5 MW; Panduranga Sugar - Solapur - Cogeneration, 9 MW; Ankur, Sankheda, Gujarat – 1.2 MW gasifier based power plant, Ruchi Soya (RSIL), 1 MW – fluidized bed biomass gasification plant planned to be set up at Washim, Maharashtra; will be executed by M/s Thermax Ltd)] | **16.5 MW for fuel linkage support to existing biomass power plant completed. 20.5 MW is ongoing. Details are given below.**   1. MPPL - Muktsar – Biomass Combustion, 7.5 MW [Completed] 2. Panduranga Sugar - Solapur - Cogeneration, 9 MW [Completed] 3. Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW [Ongoing] 4. SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW [Ongoing]   **1.2 MW Green field MIP completed. 3 MIPs [5MW] under progress. 6 MIPs [10.5 MW] under consideration**   1. Ankur Scientific Energy Technology Pvt. Ltd, Sankheda, Gujarat. 1.2 MW biomass gasification. Open access. [Completed] 2. Ruchi Soya Industries Ltd. (RSIL), 1 MW fluidized bed gasification – ECN Netherlands technology, Maharashtra for captive and grid evacuation [Ongoing] 3. Dee Vee Power, 2 MW biomass combustion based Distributed Power Generation Plant at Bellary, Karnataka [Ongoing] 4. Kandra Energy: 2 MW biomass combustion based Distributed Power Generation Plant at Bellary, Karnataka.   **Greenfield MIPs under consideration are**   1. M/s Cummins Cogeneration Pvt Ltd., Tamil Nadu – 1 MW Gasifier [under commissioning]; 2. M/s Vana Vidyut Pvt. Ltd, Tamil Nadu -  2 MW / Gasifier [under commissioning]; 3. M/s Ram Laxman Para Boiled Rice Mill Pvt. Ltd, AP-  2 MW Combustion [achieved financial closure]; 4. State Farms Corporation of India Limited (SFCI), Rajasthan - 1.5  MW/ Gasification [DPR completed and Bid Process Management for selection of Technology Provider is underway]; 5. M/s Apex Enertech Pvt. Ltd, Gujarat,  2  MW/ Gasification [financial closure is under process]; and 6. M/s Global Energy Private Limited, Mizoram 2 MW/ Combustion [yet to be decided]. |
| Outcome 1: Technology package benchmarking and validation for different biomass power technologies, including feasibility of energy plantation. | Status of manufacturing capacities and standards for different biomass power technologies. | Poor reliability and inadequate information of biomass power technologies, both captive and distributed and on projects available to the major stakeholders. | By the end of phase 1, the parameters and technical standards for the efficient biomass power technologies targeted by the project have been finalized. | Revised the targets giving more clarity on the indicator and targets as below and discontinued to report the progress from this reporting period. |
| **Outcome-1: Technology package**  **benchmarking & validation for different biomass power technologies, including feasibility of energy plantation** | * Study report on potential of biomass hybrid (solar thermal, biogas, etc) technology for power generation documented and submitted to PMU. * DPRs of potential biomass-hybrid finalized and submitted to MNRE.   Developed benchmarks for MIPs and their validation through a technical team.  Technology performance and evaluation of benchmarks  (a) Learning curves established for combustion, gasification and cogeneration technologies (in grid connected mode, and captive mode)  (b) Levelised cost of electricity data available for different biomass energy technologies  Study report on feasibility of dedicated energy plantation on wasteland. DPRs with potential PPP models prepared and submitted to PMU. | 0  0  0  0  0  0 | 1  4  3 (1 each for 3 different biomass power technologies supported under the project)  6 (for three types of technologies in two modes i.e. grid and captive)  6 (for three types of technologies in two modes i.e. grid and captive)  1 | A Consultancy assignment for exploring the potential and feasibility of integration of Solar Thermal Technology with the existing Combustion based Biomass Power Plants was awarded to M/s Steag Energy Services (India) Pvt Ltd and is under progress. The Inception Meeting was organized on 9 May 2014. An EoI was floated for inviting interest on hybridization from existing Biomass Power projects. Sixteen existing project developers responded to the EoI. The final selection of site for the DPR will be made. Some of the parameters that will be considered are plant design, performance, land availability and financial data analysis.  Activities were not undertaken during this reporting period. Will be initiated during AWP 2015.  Activities were not undertaken during this reporting period. Will be initiated during third quarter of 2014.  Activities were not undertaken during this reporting period. Will be initiated during third quarter of 2014.  Feasibility of establishing energy plantation for biomass production on degraded land/wasteland is under progress. DESL, a consulting firm has been contracted to carry out the assignment. Following are the focus states namely, Rajasthan, Gujarat, Maharashtra, Orissa, Bihar, West Bengal and Mizoram. Further target districts have been identified in the following three states for which detailed project reports were developed and the same are under review by the respective state nodal agencies, and the PMU.   * Rajasthan: The DPR has been developed in partnership with State Farm Corporation on India in Sriganaganagar district; * Maharashtra: The DPR has been developed in partnership with Tata Power in Satara district; * Odisha: The DPR has been developed in partnership with Odisha Renewable Energy development Agency in Nayagarh district; |
| **Outcome-2: Enhanced Capacities and confidence of Project Promoters, Financial Institutions, Regulators, Policy Makers, SNAs, other stakeholders through effective information development & dissemination program, along with capacity building initiatives** | Enhanced capacities of key stakeholders involved in the facilitation and implementation of selected biomass power technologies   * Quarterly Newsletter – Bio energy India published and disseminated. * Good Practice documents (model DPR and fuel purchase agreement, energy purchase/ wheeling/ banking, and project development agreements) of biomass power plants prepared. * Discussion papers prepared on various issues. * User interactive knowledge portal for the Biomass Power Sector launched and regularly updated over project period. * Consultative meetings with SNAs, SEBs, industry associations and project promoters organized and documented. * Conduct information and knowledge sharing programmes through organized study tours/ missions involving focused states | Wide variation in policy and regulatory environment and inadequate information on various aspects of BPP and bagasse cogeneration in sugar industries, to project developers & other key stakeholders  0  0  0  0  0  0 | By the end of phase 1, pilot portfolio of project profiles developed, model formats/agreements established for the targeted biomass technologies (on fuel supply, energy purchase, project development & management) and promotional material and awareness raised significantly in pilot states  22 by EoP (2017; in addition to 10 issues published during 2009-11)  1 in each category (total 3 good practice documents)  6  1  6  6 | 4 workshops for awareness on biomass power for 1 to 2 days each was conducted in which approximately 200 people participated to sensitise the investors on investment in biomass. 2 skill development trainings were conducted for 15 days each to develop skills in operation and maintenance of biomass gasifiers. Two workshops for one day each were conducted of stakeholders with regulatory authorities in which 200 people participated.  In all 10 issues of ‘Bioenergy’ and one issue of ‘Biopower’ were published, circulated and uploaded on UNDP website and most of them circulated on UN Solution Exchange. Investor manual on biomass power was prepared. A 6 minute Audio-visual was prepared on Biomass power based on MIP [model investment project] at Ankur. |
| 11  The first issue of the quarterly magazine called the BioPower India was published in January-March 2014. Hard copies of every issue of the magazine are circulated to about 700 stakeholders including Regulators, Policy Makers, Project Developers, Financial Institutions etc. Further this is circulated on UN Solution Exchange platform, and project page on UNDP website.  This activity was not undertaken during the reporting period. Will be initiated during AWP 2015.  4  The following four papers were prepared and presented:   1. V K Jain, Tanushree Bhowmik, A Chilamburaj. Biomass Power Issues and Challenges – Discussion Paper. In proceedings of ‘Regulatory and Financial Barriers and Challenges in Power Generation using Biomass’. India International Centre, New Delhi. 9 June 2014. Pp.21-36. 2. Ashok Chaudhuri. General Manager, Ankur Scientific Energy Technologies Pvt. Limited, Vadodara. “Biomass Gasification and Distributed Power Generation for Sustainable Economic Development of Rural India and Africa”. Presented in UNDP Session on Biomass Power – Business Opportunities. CII-Exim Bank Conclave on India-Africa Project Partnership, March 18-20, 2012. Hotel Taj Palace, New Delhi. 3. K L Bansal, Director, “Malwa Power Plant Limited, Muktsar Biomass Power: The next Wave in Power Generation”. Presented in UNDP Session on Biomass Power – Business Opportunities. CII-Exim Bank Conclave on India-Africa Project Partnership, March 18-20, 2012. Hotel Taj Palace, New Delhi. 4. V K Jain, Director, Ministry of New and Renewable Energy (MNRE). “Biomass Power in India – An Overview”. Presented in UNDP Session on Biomass Power – Business Opportunities. CII-Exim Bank Conclave on India-Africa Project Partnership, March 18-20, 2012. Hotel Taj Palace, New Delhi.   A web based Knowledge Portal on Biomass Power is being developed. The key objective is to develop a user friendly single point knowledge source for information/data related to generation of power. It includes grid interactive, off-grid, captive applications for electricity generation and thermal energy from biomass. IDAM Infrastructure Pvt. Ltd. is implementing the assignment.  6 consultative meetings happened so far  A working group to look into barriers and challenges in promotion of biomass power has been set up. NPD of biomass power project is the chairman and NPC is the member convener. The objectives of the working group are to:   * Review barriers and challenges faced by the sector and identify key areas related to tariff, financing, secured fuel supply * Suggest suitable policy intervention * Suggest actions required at regular intervals for re-validation of Biomass Resource Atlas and also initiate studies on fuel pricing * Discuss financial restructuring, catchment area policy for biomass and project development.   Five consultative meetings were held with the following;   * Indian Biomass Power Association (IBPA), * Orissa Renewable Energy Development Agency * Project Developers like State Farm Corporation of India and * Lakshadweep Renewable Energy Development Agency   Following results that can be attributed to working recommendations   * Central Electricity Regulatory Commission (CERC) revised the tariff for biomass power plants * CERC issued new Tariff Guidelines for Gasifiers. * ‘Performance/ Viability of biomass based plants operating in India, including prevailing prices’.     2  A team consisting of representatives from PMU, UNDP and potential investor attended 22nd European Biomass Conference held at Hamburg, Germany between 23 June 2014 and 26 June 2014. The team consisted of NPC, NPM of the project, UNDP and representative from SFCI who is potential investor in a biomass power project. The purpose of participation was to understand the technology progress, benchmarking, issues, solutions and scope for learning from outside country. The lessons learnt were to help the revision of LFA, restructuring technical, financial incentive, etc. Following are the key conclusions and follow up action points;   1. Team also visited M/s Class’s biomass processing equipment manufacturing facility. SFCI is likely to follow up collaboration. 2. Team also had meetings with Eqtec, Bulgaria and exploring transfer of gasification technology. 3. Meeting was held with ETA Renewables, EU for partnership in knowledge management in the biomass sector. |
| **Outcome 3: Development of business, commercial and support services networks in focused States.**  Output 3.1 Information sharing and networking of Biomass Power practitioners at the regional/state level strengthened | Definition and implementation of biomass power business dissemination models in the project pilot states.  National level event organized annually involving participant of various partners, stakeholders, project developers.  Various state/regional level events organized involving particular category of stakeholders to brainstorm/discuss key topics/issue by sharing expertise, knowledge. | Inadequate Institutional Framework at National, Regional and Local Levels for large scale multiplication of biomass power technology and projects.  0 | By the end of phase 1, the appropriate biomass power business models have been widely disseminated and established in the initial pilot states  3 (by EoP) | Revised the targets giving more clarity on the indicator and targets as below and discontinued to report the progress here from this reporting period. |
| One was held in Shimla during last reporting period. This workshop contributed to revision of FIT [Feed In Tariff] for biomass power. Second workshop was held at Vadodara in April 2013. Third, a one day workshop on ‘Regulatory and Financial Barriers and Challenges in Power Generation from Biomass’ was held on 9 June 2014. The workshop was well represented by stakeholders, Chairpersons and Members of Central Electricity Regulatory Commission, State Electricity Regulatory Commissions, and senior officials of State Energy Departments, State Nodal Agencies, Distribution Companies from more than 15 states across the country, officials from UNDP, Financial Institutions, Indian Biomass Power Association and Biomass Project Developers. 110 persons participated in the event. Following were the major recommendations;   * CERC has increased the FIT from INR 4 to 6 per kWh earlier to INR 7 plus per kWh. SERCs should consider implementation of the guidelines. * States should have mechanisms to revise tariffs periodically depending on price escalations. * SERCs should monitor enforcement of Renewable Purchase Obligation. Separate RPO for biomass power may be considered. * MNRE should approach Ministry of Rural Development for including biomass collection in the rural areas under the MNREGA scheme. * MNRE should leverage NCEF [National Clean Energy Fund] for supporting revival of biomass power projects. * Separate guidelines of Feed In Tariff for submegawatt will be helpful for small scale power generation, small entrepreneurs, and small businesses. |
| Outcome 4: Creation of fund for contingent financing | Contingent financing fund with initial deal flows in operation through designated financial institutions | Inadequate skills, experience and commitment to provide finance to biomass power projects | By the end of phase 1, 7 MIP’s successfully facilitated by the contingent financing facilities made available through the selected financial institutions, together with the full design of a non-financial institutions specific guarantee mechanism | As per the revised LFA, the Contingent Funding has been discontinued to report the progress here from this reporting period.  As it was reported in 2012, a study was undertaken with respect to Contingent financing for MIPs, and it revealed that 18 - 20 banks were willing to provide term loans to the projects. Therefore, it is recommended that contingent financing is not needed from the project and shall discontinue developing this further. |
| Outcome 5: Model Investment Projects (MIPs) | Model investment projects (MIP) commissioned and implementation started.  # Quantity of MW supported under fuel linkage to existing biomass power plants  # Quantity of MW green field MIPs  Performance of all MIPs commissioned got monitored, evaluated and documented. The future replication strategy/plan evolved based on major learnings/findings documented from MIPS commissioned. | Models for implementing BPP do not exist either for captive or distributed biomass resources.  0  0  0 | By the end of phase 1, 7 model investment projects will have been successfully commissioned and have started initial implementation in 3-5 states demonstrating the 3 different biomass power technologies targeted.  18 MW fuel linkage to existing biomass power plants supported  12 MW green field biomass projects covering   * 9 MW cumulative gasification/combustion based including open access sale * 3 MW for non-bagasse based co/tri-generation using captive biomass, for captive use for grid interactive local mini-grid or small gasifier systems for greening telecom towers   1 for each type of MIP implemented | 2 MIPs cumulating to 16.5 MW completed and 2 MIPs cumulating to 20.5 MW under progress under the category of fuel linkage to existing biomass power plants.  1 MIP [1.2 MW] under greenfield project completed, 3 MIPs [5 MW] committed and are under various stages of commissioning and 6 [9.5 MW] more under consideration/progress cumulating to 16.7 MW  16.5 MW for fuel linkage support to existing biomass power plant completed. Support to another 20.5 MW [2 projects] is under progress.  Support fuel linkages, MIPs ongoing are –  **Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW**:  M/s Universal Biomass has set up additional 18 decentralized biomass depots (DBD) within a radius of 100 km to collect biomass. Various crop residues - cotton stalk, paddy straw, mustard stalk, etc. are collected, processed and dispatched to the main power plant.  **SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW**:  M/s SLS Power has set up 3 decentralized biomass depots (DBD) within a radius of 50 km to collect various residues - cotton stalk, paddy straw, sugar cane trash, etc. to replace rice husks which is currently being used as main fuel.  Support for Fuel linkages, MIPs completed are –  **MPPL - Muktsar – Biomass Combustion, 7.5 MW**:  Facility included covered biomass storage shed, harvesting cum chipping device, material handling equipment (JCB) cargo canters to transport biomass from fields and weigh bridges at collection centers. It is estimated that all these facilities helped reducing biomass losses by 5-10%. The biomass supply and conversion has created local employment, increased income to farmers and understood to have positively impacted on  **Panduranga Sugar - Solapur - Cogeneration, 9 MW**:  The project supported procurement of trash bailers with technology from Netherlands. Sugarcane trash use was unique feature of this project which was not common.  1 MIP [1.2 MW] under green field project completed, 3 MIPs [5 MW] committed and are under various stages of commissioning and 5 [10.5 MW] more under consideration/progress cumulating to 17.7 MW.  **Ankur Scientific Energy Technology Pvt. Ltd, Sankheda, Gujarat commissioned 1.2 MW power plant based on biomass gasification**.  This is perhaps one of the first small scale ‘open access’ plant [Open access - power produced is sold to a third party by wheeling the power through state grid]. The electricity was sold to Aditya Birla Insulators, [a company producing electrical components] through PPA for Rs 5.25 per kWh. Ankur was also leveraging REC benefits [Rural Electricity Certificate]. However, the unit halted operations in December 2014. PMU is examining the reasons and trying to discuss with all the concerned [Ankur, Aditya Birla and Gujrat Electricity authorities] to engage in the process of revival. One of the reasons is that the REC [Renewable Energy Certificate] prices are floored which resulting in revenue is earned being inadequate for Ankur to manage the operations.  **Ruchi Soya Industries Ltd. (RSIL):**  1 MW fluidized bed biomass gasification plant is being set up at Washim, Maharashtra. The technology has been provided by the Energy Research Centre (ECN) and M/s Dahlman of Netherlands and M/s Thermax Ltd., India are the service providers. The electricity generated will be partially used for factory requirement and partly will be evacuated to the grid.  **Dee Vee Power - 2 MW Biomass based Distributed Power Generation Plant, Karnataka:**  The project intends to utilise coffee husk as major source of energy for power generation. The plant is located at the tail end of the grid. It exports the power to grid through 11kV lines. The electricity generated from this plant will be sold to the local industries at Kushalnagar Industrial Estate and the remaining power to Karnataka Power Corporation Limited.  **Kandra Energy: 2 MW Biomass based Distributed Power Generation Plant at Bellary, Karnataka:**  The plant utilize the biomass residues like cotton stalk, paddy straw, rice husk, bamboo chips etc., as source of energy. About 25% of the power will be exported to the grid. This will be supplied to local communities at INR 4.2/kWh (2% annual escalation).  75% of power will be sold to Karnataka Power Corporation Limited at grid feed-in tariff of INR 3.72/kWh ( 2% annual escalation).  Further, 6 more projects, cumulating to 9.5 MW is in the firm pipeline  Greenfield MIPs under consideration/progress are   1. M/s Cummins Cogeneration Pvt Ltd., Tamil Nadu – 1 MW Gasifier [under commissioning]; 2. M/s Vana Vidyut Pvt. Ltd, Tamil Nadu -  2 MW / Gasifier [under commissioning]; 3. M/s Ram Laxman Para Boiled Rice Mill Pvt. Ltd, AP-  2 MW Combustion [achieved financial closure]; 4. State Farms Corporation of India Limited (SFCI), Rajasthan - 1.5  MW/ Gasification [DPR completed and Bid Process Management for selection of Technology Provider is underway]; 5. M/s Apex Enertech Pvt. Ltd, Gujarat,  2  MW/ Gasification [financial closure is under process]; and 6. M/s Global Energy Private Limited, Mizoram 2 MW/ Combustion [yet to be decided].   2  A, evaluation visit was made to the project site in SLS Nellore on 31/10/2013 and 01/11/2013, PMC to verify and review the progress of the fuel linkage system being implemented by SLS. The Evaluation Report was shared with the Project Executive Committee. |
|  |  |  |  | Not taken up during the reporting period. However, the BioPower magazine is expected to capture performance of MIPs. |

Note: The text highlighted Yellow is for the activities initiated as per the revised LFA.

**Development Objectives Rating**

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| **Project Manager / Coordinator** is the person managing the day to day operations of the project. | MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country or regional projects where appropriate.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Fully explain the critical risks that have affected progress. 4. Outline action plan to address projects with DO rating of HU, U or MU. |
| HS |
| The project is extremely relevant in the energy scenario in India. The project has contributed significantly in building capacities and raising awareness about the Biomass Power sector in India and will exceed it stated target of establishing MIPs with cumulative capacities of 12MW within the extended period of March 2016.  20 studies relating to identification of barriers, resource assessment, evaluation of performance of the existing biomass power plants and review of policy & regulatory framework, Development of Model Documents, Road Map for Biomass Power have been undertaken through technical assistance, which has had a direct impact on the revision of guidelines, policies and on the National Programmes being implemented by the Ministry. The revised Procedure for Empanelment of Manufacturers, Benchmark Norms for Material Specifications and Performance Standards for Biomass Gasifiers - Modified procedure for empanelment of Biomass Gasifier Manufacturers (existing as well as new manufacturers and / or their licensees including the foreign suppliers of the Biomass Gasifier Systems, both for thermal and electrical end use applications) was developed under the project. |
| **UNDP Country Office Programme Officer** is the UNDP programme officer in the UNDP country office who provides oversight and supervision support to the project. | MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country. Not necessary for regional or global projects.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating, for example, if your rating differs from the rating provided by the project manager please explain why. 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Fully explain the critical risks that have affected progress. 4. Outline action plan to address projects with DO rating of HU, U or MU. |
| Moderately Satisfactory |
| During the reporting period the Project Result Framework (PRF) was revised, as per recommendations from MTR. The revisions are reflected in DO sheet. Major revisions are related to Model Investment Projects [MIP]. The total target was retained at 30 MW. However, this was defined into two categories. First category to focus on demonstrating Innovative fuel linkages in existing biomass power project with target of 18MW. Second category includes, 1 to 3 MW scale power plant, combustion or gasification with emphasis on later as it has scope for modular installation. A target of 12 MW for such projects was set. Small scale power projects offer the advantage to support the tail end of grid, causes minimal disturbance to biomass flows in a given area, can motivate small entrepreneurs to get into the business of generating and selling electricity from biomass, but they suffer from high production cost, lack of successful examples, and non-availability of technology packages. The lessons from piloting these projects can help revising the guidelines for small scale power plants.  Outcome 1 Technology package benchmarking and validation for different biomass power technologies, including feasibility of energy plantations. The component was expanded to cover a study on solar biomass hybrid and prepare a DPR in the revised LFA. No notable activities were taken up under the project for benchmarking. A study is being done by DESL on existing wastelands in the select states of Rajasthan, Gujarat, Maharashtra, Orissa, Bihar, West Bengal and Mizoram is underway. The study aims to review the techno-commercial and social viability to use wastelands for energy plantations. It aims to provide inputs to revise policy & regulatory norms to encourage energy plantation on wastelands. It also aims to identify at least three project sites which can provide linkage to biomass from wasteland.  Outcome 2: Enhanced capacities and confidence of project promoters, financial institutions, regulators, policy makers, SNAs, other stakeholders through effective information development & dissemination program, along with capacity building initiatives. Bioenergy newsletter which was temporarily halted, is renamed as “BioPower India” and re-started from January 2014. About 500 hard copies are distributed to key stakeholders. The magazine is expected to cover, [i] success story, [ii] lead article on innovation, [iii] CERC/ SERC guidelines, and [iv] national & global scenario. The magazine documents some of the project outputs also. The project also took up skill development in operating and maintaining in scale biomass gasification systems by training 40 persons trained over 15 days with at least 100 hours of hands on operation experience.  Outcome 3 Development of business, commercial and support services network in focused states. Three major workshops have been organized, each well integrated with the other and result oriented. One was held in Shimla, 2 years ago with strong participation of regulatory commission chairmen. This workshop made strong recommendation to restructure and revise feed in tariff [FIT] for biomass power plants. The FIT in most states was only Rs 4 per kWh which was insufficient to cover even the production costs. About two months ago CERC [Central Electricity Regulatory Commission] has issued guidance to enhance the FIT to around Rs 7 per kWh in almost all states. This price is perhaps more acceptable to biomass developers, and it is expected to revive many non-operational plants. Follow up by PMU and MNRE were one of the key drivers for bringing this change. Second major workshop was held at Vadodara in April 2013 with participation from biomass developers, experts, and officials which provided an update of the sector. Third workshop was held on 9 June 2014 at Delhi ‘Regulatory and Financial Barriers and Challenges in Power Generation from Biomass’. Chairpersons from 8 SERCs, representative from CERC were amongst the 100 people who participated in this meeting. Following were the major recommendations;   * SERCs to implement CERC guidance on revised FIT of INR 7 plus per kWh. * States to revise tariffs periodically to address price escalations. * SERCs to monitor and enforce Renewable Purchase Obligation [RPO]. Consider separate RPO for biomass power. * Approach Ministry of Rural Development to include biomass collection under the MNREGA scheme. * Leverage NCEF [National Clean Energy Fund] for supporting revival of biomass power projects. * Separate guidelines of FIT for sub-megawatt scale biomass power plants.   Outcome 5 on Model Investment projects. As for the projects supported for fuel linkage in existing biomass power plants, the target of 18 MW set is already met. Two completed projects account for 16.5 MW and two ongoing projects account for 20.5 MW. Thus the total achieved is 37 MW. Uptake of new MIPs [green field] has been slow. Key issues are extensive time taken for approvals, unviable FIT for grid based projects, poor Discom guidelines for open access power supply, lack of fuel supply guarantees and lack of financing. For example, Ankur Scientific Energy Technology Pvt. Ltd, Sankheda, Gujarat commissioned 1.2 MW power plant based on biomass gasification. This is perhaps one of the first small scale ‘open access’ plant [Open access - power produced is sold to a third party by wheeling the power through state grid]. Ankur sold electricity to a company - Aditya Birla Insulators through PPA for Rs 5.25 per kWh. Ankur was also leveraging REC benefits [Rural Electricity Certificate]. However, the unit halted operations in December 2014. PMU is examining the reasons and mediate with the concerned [Ankur, Aditya Birla and Gujrat Electricity authorities] to engage in the process of revival. One of the reasons is that the REC [Renewable Energy Certificate] prices are floored which resulted in reduced revenue to Ankur making operations unviable. Realising a need to address such challenges, project is continuously engaging itself with developers, state authorities, and banks, and restructure the financial incentives. The PMU has designed innovative financial assistance, GBI (generation based incentive) to incentivize the investors and learn from this pilot for larger replication. UNDP has cleared this concept; however, it is awaiting approval at MNRE. Under this programme, the project will set a start date, say 1 January 2015 and end date as 31 Dec 2015. Every unit of electricity generated will get financial incentive of about Rs 1. This is expected to help developers fill the viability gap. It is also expected to expedite the process of commissioning the projects as window of support period is fixed. On the other hand, for UNDP, the project can be completed in reasonable period of extension time and generate data, information to provide inputs for revising guidelines for small scale power generation. 14.5 MW green field projects are under progress/consideration. Three green field projects are under various stages of commissioning. Each project is expected to provide uniqueness. Ruchi Soya Industries Ltd at Washim, Maharashtra a 1 MW fluidised bed gasification plant has procured technology from ECN, Netherlands. Dee Vee Power; Kandra Ltd. are located in Karnataka are each of 2 MW biomass combustion based plants. Thus the total committed capacity of greenfield projects is 6.2 MW. Further 1 MW gasification plant of 1 MW, 2 MW gasification plant at Van Vidyut, both in Tamil Nadu are in advanced stage of commissioning. Thus this cumulates to 9 MW. State Farm Corporation of India, a government set up is considering putting up 1.5 MW gasification plant, Lakshadweep Islands is considering 4 MW [2 modules of 2 MW each] combustion based power plants. All these commitments cumulate to 14.2 MW and thus the project is expected to achieve the targets.  Overall the project has appeared to come back on track and contributed to the key outcomes. It has supported fuel linkage to existing biomass power plants and provided useful lessons in trialing sugarcane trash as fuel for combustion, biomass depots as unique feature, machinery for biomass processing. New green field projects with different business models, are providing much needed inputs to learn and replicate such projects to harness biomass.  However, the project has been conservative in making yearly plans, setting up targets and has gone through significant delays. Last two years expenditure has been just about 118,015 USD in 2012 and 316,500 USD in 2013. The budget for year 2014 is also conservative at 482,500 USD. Given the total budget of 5.65 million USD, the total expenditure till now is only about 2.5 million USD. The project is already in its 7th year of operation, is under third extension and expected to close by March 2016. However, this appears to be tall order unless, PMU hastens the activities, mobilises all the MIPs as targeted. The project has taken action to revise LFA and make mid-course correction. Project is also aiming to trial GBI for the first time, which is for the first time for biomass sector and it can motivate time bound implementation of the project. Hence, a rating of Moderately Satisfactory is given. |
| **GEF Operational Focal point** is the government representative in the country designed as the GEF operation focal point. | HIGHLY RECOMMENDED but NOT mandatory for projects under implementation in one country. Not necessary for regional or global projects.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Provide recommendations for next steps. |
| [DO rating in 2014] |
| [comments] |
| **Project Implementing Partner** is the representative of the executing agency (in GEF terminology). This would be Government (for NEX/NIM execution) or NGO (for CSO Execution) or an official from the Executing Agency (for example UNOPS). | RECOMMENDED but NOT MANDATORY for projects under implementation in one country and regional projects.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Provide recommendations for next steps. |
| [DO rating in 2014] |
| [comments] |
| **Other Partners**: For jointly implemented projects, a representative of the other Agency working with UNDP on project implementation (for example UNEP or the World Bank). | RECOMMENDED but NOT MANDATORY for jointly implemented projects.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Provide recommendations for next steps. |
| [DO rating in 2014] |
| [comments] |
| **UNDP Technical Adviser** is the UNDP-GEF Technical Adviser. | MANDATORY RATING MUST BE PROVIDED for all projects.  Please review the cumulative progress toward end-of-project targets as noted in the DO tab of this PIR and provide a rating on this progress. Please consider the following questions before selecting a DO rating:   1. What is the likelihood that the project will achieve its stated objective? 2. What is the likelihood that the project will achieve all stated outcomes by the planned project closure date?   Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating (do not repeat the project objective). 2. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet. 3. Fully explain the critical risks that have affected progress. 4. Outline action plan to address projects with DO rating of HU, U or MU. |
| [DO rating in 2014] |
| [comments] |

***General comments on Development Objective Rating***

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| NA |

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| **DO Progress: Rating Definitions** | |
| Highly Satisfactory (HS) | Project is expected to achieve or exceed all its major global environmental objectives and yield substantial global environmental benefits without major shortcomings. The project can be presented as “good practice”. |
| Satisfactory (S) | Project is expected to achieve most of its major global environmental objectives and yield satisfactory global environmental benefits with only minor shortcomings. |
| Moderately Satisfactory (MS) | Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits. |
| Moderately Unsatisfactory (MU) | Project is expected to achieve its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives. |
| Unsatisfactory (U) | Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits. |
| Highly Unsatisfactory (HU) | The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits. |

**Implementation Progress**

For each project Outcome briefly describe up to four (4) major outputs delivered this reporting period only (i.e. annual progress not cumulative progress). **Do not repeat outputs reported in previous PIRs.** If you have any general comments about the information in this section of the PIR, please note them at the bottom of this page.

|  |  |
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| **Outcome** | **Outputs reported as of 30 June 2014** |
| **Outcome 1** | 1. A Techno-economic feasibility of biomass-solar hybrid along with development of Detailed Project Report for implementing one biomass-solar hybrid based power project has been initiated and the Inception Meeting has been completed. 2. Preparation of report on techno-commercial viability of wasteland for biomass production for power generation and prepare detailed project reports [DPR] for four sites has been initiated in Rajasthan, Gujarat, Maharashtra, Orissa, Bihar, West Bengal and Mizoram. State wise reports on best models/ practices on dedicated energy plantation on wastelands, various policy, regulatory/fiscal & financial incentives promoting the use of wastelands for dedicated energy plantation has been completed and shared with the State Nodal Agencies (SNA) for concurrence. Field visits for on-site inspection and data collection have been completed in Odisha, Maharashtra, and Rajasthan and the draft DPRs have been completed. |
| **Outcome 2** | 1. The first issue of the quarterly magazine ‘BioPower India’ was published in January-March 2014. 2. A web based Knowledge Portal on Biomass Power - developing user friendly single point knowledge source for information/data related to biomass power is under development. It covers grid interactive, off – grid, captive power and thermal energy from biomass. IDAM Infrastructure Pvt. Ltd. has been selected to execute the assignment. 3. A Working group chaired by NPD of the project has been constituted to look into barriers and challenges to promote biomass power. NPC of the project acts as member convener. The working group is expected to do the following: [i] Review barriers and challenges faced by the sector and identify key areas related to tariff, financing, secured fuel supply, [ii] Suggest suitable policy intervention and [iii] Suggest actions required at regular intervals for re-validation of Biomass Resource Atlas and facilitate studies on fuel pricing. Working Group inputs were key in Central Electricity Regulatory Commission (CERC) issuing revised FIT for biomass power plants and also issue of new Tariff Guidelines for Gasifiers. |
| **Outcome 3** | MNRE/PMC organized a one day workshop on ‘Regulatory and Financial Barriers and Challenges in Power Generation from Biomass’ on 9 June 2014. The workshop was attended by the Chairpersons and Members of Central Electricity Regulatory Commission, State Electricity Regulatory Commissions, senior officials of State Energy Departments, State Nodal Agencies, and Distribution Companies from 15 states, officials from UNDP, Financial Institutions, Indian Biomass Power Association and Biomass Project Developers and the total participation was 110. It has provided very useful recommendations and the PMU-MNRE is following up on recommendations. |
| **Outcome 4** | Will be discontinued to report as per revised LFA based on MTR recommendations. |
| **Outcome 5** | During the reporting period, Ruchi Soya Industries Ltd. (RSIL) of 1 MW fluidized bed biomass gasification plant is under advanced stage of commissioning. The plant is located at Washim, Maharashtra. The plant is being executed by M/s Thermax Ltd., based on the technology acquired by them from the Energy Research Centre (ECN) and M/s Dahlman of Netherlands. During the reporting period, two new MIPs – Dee Vee Power and Kandra Energy have been sanctioned. Both are 2 MW each, combustion based.  Two projects have been supported for Fuel linkages, namely (i) Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW; (ii) SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW.  An on-site evaluation of the 14.5 MW - Universal Biomass Energy Pvt. Ltd in Muktsar, Punjab was done by PMC between 20/03/2014 and 22/03/2014. The plant was operating with a PLF of above 70% and sometimes even crossing 100% in some periods.  Zenith Energy, a consulting firm is assigned with task of identifying 5 green field MIPs, providing them technical support cumulating to about 9 to 10 MW. They have identified 5 projects, cumulating to 9.5 MW. They are,  [i] M/s Ram Laxman Para Boiled Rice Mill Pvt. Ltd, AP-  2 MW Combustion [achieved financial closure];  [ii] M/s Vana Vidyut Pvt. Ltd, Tamil Nadu -  2 MW / Gasifier [under commissioning];  [iii] State Farms Corporation of India Limited (SFCI), Rajasthan - 1.5  MW/ Gasification [yet to decide];  [iv] M/s Apex Enertech Pvt. Ltd, Gujarat,  2  MW/ Gasification [financial closure is under process]; and  [v] M/s Global Energy Private Limited, Mizoram 2 MW/ Combustion [approvals underway].  Financial closure is completed for Ram Laxman, and Van Vidyut. |

***General comments on Implementation Progress***

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| NA |

**Implementation Progress Rating**

|  |  |
| --- | --- |
| **Project Manager / Coordinator** is the person managing the day to day operations of the project. | MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country or regional projects where appropriate.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating. 2. Summarize annual progress and address timelines of project output/activity completion in relation to annual workplans. 3. Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation. |
| HS |
| The project has contributed significantly in building capacities and raising awareness about the Biomass Power sector in India. It has also provided a common platform to key stakeholders for dialogue on the problems faced by the Biomass Power sector in India.  The 1.2 MWe MIP that has been supported in Sankheda has generated considerable learning on regulatory, tariff and operational issues of running a Biomass power plant. In the reporting period, the project has sanctioned to new MIPs and the cumulative capacity of Green field installations till now is 6.2 MW. Additionally, 6 Green field projects, cumulating to 8 MW is in the firm pipeline. The cumulative capacity of MIPs supported for Fuel Supply Linkage is 37 MW.  A Consultancy Assignment for exploring the potential and feasibility of Integration of Solar Thermal Technology with the existing Combustion based Biomass Power Plants has been initiated and the study is under implementation. Another study on techno-commercial viability of wasteland for biomass production for power generation and preparation of detailed project reports [DPR] for four sites has also been initiated in the states of Odisha, Bihar, West Bengal, Rajasthan, Gujarat and Maharashtra. These studies will contribute to streamlining the National Programmes of the Ministry. |
| **UNDP Country Office Programme Officer** is the UNDP programme officer in the UNDP country office who provides oversight and supervision support to the project. | MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country. Not necessary for regional or global projects.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. The QORs and delivery data in the ERBM portfolio project monitoring report should inform your rating. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating. If your rating differs from the rating provided by the project manager please explain why. 2. Summarize annual progress and address timeliness of project output/activity completion in relation to annual workplans. 3. Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation. |
| Satisfactory |
| During the reporting period, key activities undertaken include, revision of Project Results Framework, re-launching of ‘BioPower India’, workshop on “Regulatory & Financial barriers and challenges in Power Generation from Biomass”, working group deliberations and providing inputs to CERC resulting in FIT and other guidelines, designing GBI as financial incentive under the project, and identifying MIPs.  Following new projects are under development during the reporting period namely, Ruchi Soya in Maharashtra, DEE VEE power, and Kandra power in Karnataka. But, no MIPs were freshly commissioned during reporting period. The lone new MIP Ankur was stopped due to reasons already explained. GBI as a financial incentive, though was discussed at length almost since a year, is yet to be implemented. Monitoring and verification of new projects need to be strengthened to get lessons. Zenith Energy was hired to identify six small scale power generation projects and provide support to them to lead to financial closure. Following are the six projects identified by them are, M/s Ram Laxman Para Boiled Rice Mill Pvt. Ltd, AP-  2 MW Combustion [achieved financial closure]; [ii] M/s Vana Vidyut Pvt. Ltd, Tamil Nadu -  2MW / Gasifier [under commissioning]; [iii] State Farms Corporation of India Limited (SFCI), Rajasthan - 1.5  MW/ Gasification [yet to decide]; [iv] M/s Apex Enertech Pvt. Ltd, Gujarat,  2  MW/ Gasification [financial closure is under process]; and [v] M/s Global Energy Private Limited, Mizoram 2  MW/ Combustion [approvals underway].  The budget for reporting period was approximately 369,200 USD and the delivery was 332,200 USD. Thus the delivery is 90%, however the budget planned was not ambitious and at this rate, it becomes challenging during the next two years on utilizing the budget of over 3 million USD in next two years period. However, during the reporting period, project has consolidated 13 MIPs, 3 of them are complete, 5 are in advanced stages of commissioning in the last two years. Project has engaged with the sector through working group meetings, workshops, identified the issues. Project significantly contributed to revising the FIT from Rs 4 to Rs 7 per kWh which is a significant achievement. Project is seriously considering piloting Generation Based Incentive. Hence a rating of Satisfactory is given. |
| **GEF Operational Focal point** is the government representative in the country designed as the GEF operation focal point. | HIGHLY RECOMMENDED but NOT mandatory for projects under implementation in one country. Not necessary for regional or global projects.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative. 3. Provide recommendations for next steps. |
| [IP rating in 2014] |
| [comments] |
| **Project Implementing Partner** is the representative of the executing agency (in GEF terminology). This would be Government (for NEX/NIM execution) or NGO (for CSO Execution) or an official from the Executing Agency (for example UNOPS). | RECOMMENDED but NOT mandatory for projects under implementation in one country or regional projects.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative. 3. Provide recommendations for next steps. |
| [IP rating in 2014] |
| [comments] |
| **Other Partners**: For jointly implemented projects, a representative of the other Agency working with UNDP on project implementation (for example UNEP or the World Bank). | RECOMMENDED but NOT mandatory for jointly implemented projects.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.   1. Explain why you gave a specific rating. 2. Note trends, both positive and negative. 3. Provide recommendations for next steps. |
| [IP rating in 2014] |
| [comments] |
| **UNDP Technical Adviser** is the UNDP-GEF Technical Adviser. | MANDATORY RATING MUST BE PROVIDED for ALL projects.   1. Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this PIR)? [HS / S / MS / MU / U / HU / n.a] 2. Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?) [HS / S / MS / MU / U / HU / n.a] 3. Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively? [HS / S / MS / MU / U / HU / n.a] 4. Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the PIR last year? [HS / S / MS / MU / U / HU / n.a] 5. Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation. [HS / S / MS / MU / U / HU / n.a]   Please justify your rating and address the following points in your comments. The QORs and delivery data in the ERBM portfolio project monitoring report should inform your rating. Please keep word count between 500 words minimum and 1200 words maximum.   1. Explain why you gave a specific rating. If your rating differs from the rating provided by the UNDP Country Office Programme Officer and/or the Project Manager please explain why. 2. Summarize annual progress and address timelines of project output/activity completion in relation to annual workplans. 3. Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation. |
| [IP rating in 2014] |
| [comments] |

***General comments on Implementation Progress Rating***

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| NA |

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| --- | --- |
| **Implementation Progress: Ratings Definitions** | |
| Highly Satisfactory (HS) | Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as “good practice”. |
| Satisfactory (S) | Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action. |
| Moderately Satisfactory (MS) | Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action. |
| Moderately Unsatisfactory (MU) | Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action. |
| Unsatisfactory (U) | Implementation of most components is not in substantial compliance with the original/formally revised plan. |
| Highly Unsatisfactory (HU) | Implementation of none of the components is in substantial compliance with the original/formally revised plan. |

**Adjustments**

***Project Planning***

If delays have occurred in reaching key projects milestones - the inception workshop, the Mid-term Review and/or the Terminal Evaluation - then note below the current status of that milestone, the original planned and actual/expected dates, and comments to explain the reasons for the delays and their implications.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key Project Milestone** | **Status**  (pick one option below) | **Original Planned Date** | **Actual/Expected Date** | **Comments** including reasons for delays and their implications |
| **Inception Workshop** | completed | NA | NA | NA |
| **Mid-term Review** | completed | NA March 2010 | NAJune 2011 | NA |
| **Terminal Evaluation** | [on schedule  delayed/completed  delayed/pending  n/a] | 24 months | The project is proposed to be extended for 24 months, till March 2016. | NA |

***Critical Risk Management***

Select from below the critical risks only that appear in the ATLAS project risk log and briefly describe actions undertaken this reporting period to address each critical risk. Please ensure that any 'social' risks identified during the environmental and social screening of the project are reflected in the ATLAS risk log under type/description 'other'. Note that the total number of critical risks is used to calculate the overall risk rating of the project. The methodology to determine the overall risk rating is explained further on this page.

|  |  |
| --- | --- |
| **Current/Active Critical Risks**  (pick one option below;  add rows as necessary) | **Critical Risk Management Measures Undertaken in 2014** |
| Regulatory –  Low Feed In tariff for grid evacuation  Cumbersome guidelines on open access  Lack of exit options available in PPA to producers. | One day Workshop on ‘Regulatory and Financial Barriers and Challenges in Power Generation from Biomass’ was organized by the Ministry on 09 June 2014. The purpose of the workshop was to discuss various issues mentioned as critical risks. Chairpersons of State Regulatory Commissions, Chief of State Nodal Agencies and representatives from Financial Institutions and Project Developers participated. The Workshop was chaired by Shri Upendra Tripathy, Secretary, Ministry of New & Renewable Energy. A list of stakeholder-wise recommendations were drawn and shared with the concerned parties. It was decided that this workshop will be followed by more focused interactions at the state level with regulators. |
| Others –  Unreliable availability of biomass for plant operations due to competitive uses of biomass in process industry and seasonal variation of biomass | Unique fuel supply linkages, biomass depots, are being supported under the project to demonstrate increased reliability of plant if these measures are adopted.  A Consultancy Assignment on state-wise potential and roadmap for developing dedicated energy plantations in wastelands for biomass power sector has been initiated.  A working group under the chairmanship of NPD has been constituted to look into Barriers and Challenges in Promotion of Biomass Power and continuously keep addressing the issues. |
| Operational:  Long time taken for 8 to 9 mandatory approvals | To address the challenge of low rate of conversion of pipeline proposals to MIPs, PMU called meeting of Project Developers on 03 December 2013. Project wise discussion was done with individual project developer regarding the status of approvals of the projects and the bottlenecks being faced by the projects. Based on the discussions, a firm pipeline of 6 projects have been identified for follow-up and support in terms of acquiring approvals and other preparatory activities. |

***General comments on Adjustments***

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| The existing Project Results Framework is being revised in view of changed environment and economic scenario, and in keeping with the recommendations of the Mid Term Evaluation.  The following adjustments have been incorporated in the project plan [These changes were reported in PIR 2013]:   1. The numbers of Model Investment Projects [MIP] are not restricted to 7, but are open. 2. The geographical location for MIPs is open to all states in India. 3. In addition to new biomass power plants, fuel linkage to existing biomass power plant is added to help increase Plant Load Factor [PLF] of the plant.   The project results framework revision included the following;   * Extend project period till March 2017. [extension till March 2016 has been approved by PSC] * Project Outcome-4 ‘Creation of fund for contingent financing’ is proposed to be dropped * Activities added   + Output 1.1: Potential of biomass hybrid (solar thermal, biogas, etc) technology for power generation explored, documented and shared with MNRE, comprising of   + Activity 1.1.1: Study on exploring potential of biomass hybrid (solar thermal, biogas, etc) technology for power generation completed   + Activity 1.1.2: DPR for potential biomass hybrid prepared and submitted to MNRE   + Output 1.2: Technology performance and evaluation of benchmarks for MIPs available including levelized cost of electricity generation; following sub activity has been added   + Activity 1.2.2 Establishment of technology learning curve in the form of levelized cost of electricity generation for various biomass using technologies both in grid and captive mode   + Output 1.4: Socio-economic study (including environmental impacts) to look into benefits of biomass power plants with regard to employment generation, livelihood improvements and environmental impacts   + Budget provision kept for acquisition of innovative state-of-the art small gasifier technology/system including producer gas turbine * Following outputs have been removed:   + Output 3.1: Biomass activities mainstreamed into the existing institutional framework – NGOs, Women/SHGs, Micro lending institutions and intermediaries in focused state. (Instead new output added: Information sharing and networking of Biomass Power practitioners at the regional/state level strengthened)   + Output 3.2: Preparation of Master Plan for creation of dynamic and sustainable institutional framework. * Activity 2.2.1 Communication and advocacy has been modified to include   + Sub-activity 2.2.1 (a) Supporting advocacy related activities at the state level through selected key stakeholder, such as Indian Biomass Power Association (IBPA), which is a body of biomass power producers.   + Sub-activity 2.2.1 (b) Policy and advocacy through symposium/ thematic consultation/events on various issues/challenges in promoting biomass power * Following activities have been removed:   + Activity 1.1.2: Develop strategic plan for sustained adoption of biomass power technologies through consultative process involving stakeholders as it is being undertaken by MNRE separately.   + Activity 2.1.1: Create online database for biomass projects promotion and development in focus states (sub activities under this have been subsumed in development of knowledge portal with coverage all across India)   + Activity 2.1.2 (e): Develop Project Management & Information   + Activity 2.2.5: Support for fellowships/participation in National/International events * Under Output 5.1, target additional cumulative installed green field MIP capacity revised to 12MW[[1]](#footnote-1) comprising of 9 MW for gasification/combustion based power generation including open access sale, 3 MW for non-bagasse based co/tri-generation using captive biomass, and captive use such as greening of cluster of telecom towers (@11kW capacity) including demonstrating innovation in technology/management/fuel linkages * Under Output 5.1, MIPs horizon further extended to cover   + MIPs for gasification and combustion based power generation for planting selling power in open access market   + MIPs for non-bagasse based cogeneration/tri-generation using captive biomass   + MIPs for small gasifiers for local grid interactive mini-grids, captive use and greening telecom tower in cluster mode demonstrating innovation in technology/management/fuel linkages   It is proposed to provide generation based incentive (GBI to the tune of INR 1.50 per kWh) within project period with cap of INR 90,00,000 per MW to attract MIPs and gather operating performance data and learnings. |

**Evaluations**

***Mid-term Review (MTR)***

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| Has a Mid-term Review report for this project been completed since the last PIR was submitted? | | No |
| Will this project undertake a mid-term review? | | NA |
| Will the mid-term report be completed and translated into English by December of this year? | | NA |
| **Actual Co-financing at Mid-term**(Answer these questions only if the MTR was completed this reporting period)  Co-financing for GEF-financed projects, excluding LDCF and SCCF projects, is defined as resources that are additional to the GEF grant and that are provided by the GEF Partner Agency itself and/or by other non-GEF sources that support the implementation of the GEF-financed project and the achievement of its objectives. | | |
| How much of the total planned co-financing as committed in the Project Document has *actually been realized*? | | NA |
| Add any comments on co-financing including other types and amounts of co-financing such as in-kind, private sector, grants, credits and loans. (word limit = 200 words) | NA | |
| For projects that completed an MTR since the last PIR was submitted, please respond to the following (500 words or less):   * Briefly outline the key findings and recommendations of the MTR report and the management response. * Discuss any problems/issues with the final MTR report or the MTR process. * Discuss any problems/issues with the related GEF Focal Area Tracking Tool. | NA | |

***Terminal Evaluation (TE)***

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| Has a Terminal Evaluation report for this project been completed since the last PIR was submitted? | | No |
| If the TE report has been completed, has it been uploaded to the [UNDP Evaluation Resource Centre](file:///C:/Users/ciara.daniels/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/U20SVW6P/erc.undp.org)? | | NA |
| **Actual Co-financing at Project End**(Answer these questions only if the TE was completed this reporting period)  Co-financing for GEF-financed projects, excluding LDCF and SCCF projects, is defined as resources that are additional to the GEF grant and that are provided by the GEF Partner Agency itself and/or by other non-GEF sources that support the implementation of the GEF-financed project and the achievement of its objectives. | | |
| How much of the total planned co-financing as committed in the Project Document has *actually been realized*? | | NA |
| Add any comments on co-financing including other types and amounts of co-financing such as in-kind, private sector, grants, credits and loans. (word limit = 200 words) | NA | |
| For projects that completed a TE since the last PIR was submitted, please respond to the following (500 words or less):   * Briefly outline the key findings and recommendations of the TE report and the management response. * Discuss any problems/issues with the final TE report or the TE process. * Discuss any problems/issues with the related GEF Focal Area Tracking Tool. | NA | |

**Communications & KM**

***Tell us the story of your project, focusing on the impacts and results achieved during this reporting period.***

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| Please use 500 words or less.  Avoid UN jargon, acronyms, and technical terms. Use plain language.  Include quotes from beneficiaries, if possible, and be sure to provide their names  The following questions can be used as guidance for your story:  What is this project about – the issue, interventions, and impacts?  Who are the beneficiaries of this project?  How have project interventions improved people's livelihoods?  What was the most notable achievement during this reporting period?  This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts. |
| The purpose of the project is to remove technical, regulatory and institutional barriers to biomass promotion. It aims to support model investment projects [MIPs] demonstrating different business models to produce electricity based on biomass combustion and gasification cumulating to 30 MW. The project is expected to result in [i] revising/developing guidelines that help promoting biomass power and [ii] replicating and accelerating biomass power use in sustainable manner.  The intervention is expected to benefit the MIP developers directly and the policies/regulations revised to benefit biomass developers in large. The interventions are expected to provide employment in the power plants, biomass processing. Most biomass power plants are located in rural areas, more than 50% of the turnover is spent on biomass, manpower, the interventions will increase incomes of people in the rural areas.  14.5 MW M/s Universal Biomass Energy Pvt. Ltd in Muktsar, Punjab has created win-win situation with project support as it stabilized PLF, reduced the cost on biomass for the power plant, generated steady income for over 1000 people around the power plant.  Most notable achievement during the reporting period are,  First notable achievement is PMU has consolidated 13 MIPs in all. Three are completed, rest are under different stages of consideration and progress. The list is given below;  **16.5 MW for fuel linkage support to existing biomass power plant completed. 20.5 MW is ongoing. Details are given below.**   1. MPPL - Muktsar – Biomass Combustion, 7.5 MW [Completed] 2. Panduranga Sugar - Solapur - Cogeneration, 9 MW [Completed] 3. Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW [Ongoing] 4. SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW [Ongoing]   **1.2 MW Green field MIP completed. 3 MIPs [5MW] under progress. 5 MIPs [9.5 MW] under consideration**   1. Ankur Scientific Energy Technology Pvt. Ltd, Sankheda, Gujarat. 1.2 MW biomass gasification. Open access. [Completed] 2. Ruchi Soya Industries Ltd. (RSIL), 1 MW fluidized bed gasification – ECN Netherlands technology, Maharashtra for captive and grid evacuation [Ongoing] 3. Dee Vee Power, 2 MW biomass combustion based Distributed Power Generation Plant at Bellary, Karnataka [Ongoing] 4. Kandra Energy: 2 MW biomass combustion based Distributed Power Generation Plant at Bellary, Karnataka.   **Greenfield MIPs under consideration are**   1. M/s Ram Laxman Para Boiled Rice Mill Pvt. Ltd, AP-  2 MW Combustion [achieved financial closure]; 2. M/s Vana Vidyut Pvt. Ltd, Tamil Nadu -  2 MW / Gasifier [under commissioning]; 3. State Farms Corporation of India Limited (SFCI), Rajasthan - 1.5  MW/ Gasification [yet to decide]; 4. M/s Apex Enertech Pvt. Ltd, Gujarat,  2  MW/ Gasification [financial closure is under process]; and 5. M/s Global Energy Private Limited, Mizoram 2 MW/ Combustion [approvals underway].   Second notable achievement is PMU-MNRE working group meetings, workshops consolidated inputs to CERC on revising FIT. This has resulted in CERC issuing guidelines revising FIT from INR 4 to INR 7 per kWh in most states.  Third notable achievement is developing a set of recommendations by holding a one day workshop on ‘Regulatory and Financial Barriers and Challenges in Power Generation from Biomass’ held on 09 June 2014. The important recommendations are;   * 1. SERCs to implement CERC guidance on revised FIT of INR 7 plus per kWh.   2. States to revise tariffs periodically to address price escalations.   3. SERCs to monitor and enforce Renewable Purchase Obligation [RPO]. Consider separate RPO for biomass power.   4. Approach Ministry of Rural Development to include biomass collection under the MNREGA scheme.   5. Leverage NCEF [National Clean Energy Fund] for supporting revival of biomass power projects.   6. Separate guidelines of FIT for submegawatt scale biomass power plants.   Fourth notable achievement is, re-launching of quarterly magazine 'BioPower India' as a media to reach out policy makers, state authorities to understand and appreciate biomass power sector, and to communicate developers and others on the progress in the sector and the UNDP-GEF-MNRE Biomass power project outcomes. |

***Adaptive management this reporting period.***

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| Describe a problem that was encountered and how the project team overcame that problem. Give multiple examples if possible.  This text will be used for internal knowledge management in the respective technical team and region. |
| Main adaptive management during this reporting period are the following;   * Revision of Project Results Framework – described under adjustments * Designing of Generation Based Incentive, however, this is yet to be implemented. |

***Lessons learned***

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| Describe lessons learned in the course of the project's implementation relating to any aspect of the project - technical, social, political, administrative, etc.  This text will be used for internal knowledge management in the respective technical team and region. |
| Three important factors affect the biomass power plants.  Firstly, a number of approvals, as many as 8 mandatory approvals are required to start a biomass power plant. These approvals take enormous time, on an average 18 months or even more. MNRE does not control these approvals as they have to be approved from different village, state, and central levels. PMU/MNRE can identify redundant approvals, study and analyse them and recommend dropping of such approval requirements. PMU/MNRE needs to interact with biomass developers and approving authorities for expediting approvals. Simplify clearances for small scale power projects to encourage their quick establishment.  Secondly, low FITs discourage establishment of biomass power plants and health of running plants. Two years of persuasion of biomass developers, PMU/MNRE has resulted in CERC revising the FIT from INR 4 to INR 7 per kWh. This appears to be reasonable for large combustion biomass plants. However, FIT for small scale power plants needs to be reviewed and they should be set differently than the large biomass plants. There is a requirement to review FIT on periodical basis and revise them, otherwise, the there is a danger of plants becoming nonfunctional.  Both the above are not under MNRE control, thereby makes the project more vulnerable to externalities.  Third learning is importance of providing reliable and quality biomass to ensure optimal performance of biomass power plant. Encouraging dedicated ventures/companies to handle the fuel supply as separate business units. Encourage energy plantations on wastelands. Focus on such sectors where biomass is byproduct. |

***Project links & social media***

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| **Please list below the website addresses (URLs) that exist for this project, including any links to social media sites. Please include: Project website, Project page on the UNDP website, Adaptation Learning Mechanism (UNDP-ALM) platform, Facebook, Twitter, Flickr, YouTube, Google +** | NA http://www.in.undp.org/content/india/en/home/operations/projects/environment\_and\_energy/removal\_of\_barrierstobiomasspowergenerationinindiaphasei.html |
| **Please share hyperlinks to any media coverage of the project, for example, stories written by an outside, external source.** | A A/V capsule on MIP ‘1.2 MWe Biomass power plant at Ankur’ was also prepared and put up on UNDP website and also on Youtube (<http://www.youtube.com/watch?v=HFlrWe8nDAE>)  http://www.in.undp.org/content/india/en/home/operations/projects/environment\_and\_energy/removal\_of\_barrierstobiomasspowergenerationinindiaphasei.html |
| **Please upload any supporting files, including photos, videos, stories, and other documents.** | NA |

***General comments on Communications & KM***

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| NA |

**Partnerships**

This information is used to get a better understanding of the work GEF-funded projects are doing with key partners, including the GEF Small Grants Programme, indigenous peoples, the private sector, and other partners. The data may be used for reporting to GEF Sec, the UNDP-GEF Annual Performance Report, UNDP Corporate Communications, posted on the UNDP-GEF website, and for other internal and external knowledge and learning efforts. The RTA should view and edit/elaborate on the information entered here. All projects must complete this section. Please enter "N/A" in cells that are not applicable to your project.

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| **Partners** | **Describe innovative aspects of the project in working with**  **(limit = 2000 characters for each section)** |
| **Civil Society Organisations/NGOs** | NA |
| **Indigenous Peoples** | NA |
| **Private Sector** | The most significant partnership of the project is with the private sector, in the form of project developers for the Model Investment Projects.The partnerships have resulted in implementation of new business models, operational models and technology.  Ankur Scientific Energy Technology Pvt. Ltd. implemented 1.2 MW biomass gasifier based plant in Sankheda, They have an agreement to sell power to ‘Aditya Birla’ a factory producing electrical insulators through open access. That is, power is generated by Ankur and transmitted to Aditya Birla through Gujarat utility electric lines.  1 MW biomass gasification based MIP that is under implementation by Ruchi Soya Industries Ltd. (RSIL) is under implementation through a partnership between RSIL, Thermax Ltd and M/s Dahlmann Renewable Technology, Netherlands. This partnership has enabled implementation of the OLGA tar removal system for the first time in India. This system removes Nitrogen from the group of combustible gases thereby making the operation more efficeint. |
| **GEF Small Grants Programme** | NA |
| **Other Partners** | The project has actively engaged with Regulators and Financial Institutions to address the challenges that are being faced by the sector. The engagement has been through platforms like workshops and meetings and also one to one interactions. |

***General comments on Partnerships***

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| NA |

**Gender**

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.

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| **Has a gender or social assessment been carried out this reporting period?** | No |
| **If a gender or social assessment has been carried out what where the findings?** | NA |
| **Does this project specifically target woman or girls as key stakeholders?** | No |
| **Have there been any changes in specifically targeting women or girls as key stakeholders this reporting period?** | NA |
| **If yes, please explain** | NA |
| **Please discuss any of the points above further or provide any other information**  **on the project’s work on gender equality undertaken this reporting period.**  Some points to consider: impact of project on daily workload of women, # of jobs created for women, impact of project on time spent by women in household activities, impact of project on primary school enrolment for girls/boys, increase in women's income etc. Be as specific as possible and provide real numbers (e.g. 100 women farmers participating in sustainable livelihoods programme). | NA |
| **Please upload the gender or social needs assessment and any other documents related to the project's gender-related results.** | NA |

***General comments on Gender***

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| NA |

**Environmental or Social Grievance**

This section must be completed by the UNDP Country Office if a grievance related to the environmental or social impacts of this project was addressed this reporting period.

It is very important that the questions are answered fully and in detail.

*If no environmental or social grievance was addressed this reporting period then please do not answer the following questions.*

*If more than one grievance was addressed, please answer the following questions for the most significant grievance only and explain the other grievance(s) in the comment box below.*

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| **What environmental or social issue was the grievance related to?** | [Environmental/Financial/Organisational/Political/ Operational/Regulatory/Strategic/Other] |
| **What is the current status of the grievance?** | [Resolved / On-going / Both] |
| **How would you rate the significance of the grievance?** | [Minor / Significant / Serious] |
| **Please describe the on-going or resolved grievance noting who was involved, what action was taken to resolve the grievance, how much time it took, and what you learned from managing the grievance process (maximum 500 words). If more than one grievance was addressed this reporting period, please explain the other grievance (s) here.** | XNA |

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| **Rating** | **Description** |
| Minor | The grievance had/has a low impact on the day-to-day implementation of the project. |
| Significant | The grievance had/is having a significant impact on the day-to-day implementation of the project, but the project is still expected to achieve its objective. |
| Serious | The grievance had/is having a serious impact on the day-to-day implementation of the project, and there is a risk (50% or higher) that the project may not be able to achieve its objective. |

**Approve and Submit Page**

***UNDP-GEF Region-based Technical Adviser (RTA)***

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| **RTA Revised Overall Ratings** (optional) | |
| **Revised overall DO rating** |  |
| **Revised overall IP rating** |  |

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| --- | --- |
| **Explanation for change to Overall DO Rating or Overall IP Rating** (required only if the Overall DO or IP Rating have been revised by the RTA). |  |
| **Please upload any supporting files, including photos, videos, stories, and other documents** associated with this project that have not been uploaded elsewhere in the PIR(i.e. via the Adjustments, Communications KM or Gender tabs). The files will be saved in the UNDP-GEF PIMS database and used for internal and external learning and communications. | [uploading only possible in PIR system; list here the files that you plan on uploading] |

1. This is in addition to already implement MIPs (Both green field and biomass fuel linkage based)

   Support for Fuel linkages: (Universal Biomass Energy Pvt. Ltd, Muktsar, Punjab, 14.5 MW; SLS Power Ltd., Nellore, Andhra Pradesh, 6 MW; Completed MIPs (MPPL - Muktsar – Biomass Combustion, 7.5 MW; Panduranga Sugar - Solapur - Cogeneration, 9 MW; Ankur, Sankheda, Gujarat – 1.2 MW gasifier based power plant, Ruchi Soya (RSIL), 1 MW – fluidized bed biomass gasification plant planned to be set up at Washim, Maharashtra; will be executed by M/s Thermax Ltd) [↑](#footnote-ref-1)