

2019

Project Implementation Review (PIR)

**Brazil Charcoal**

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# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 4675 |
| GEF ID | 4718 |
| Title | Production of sustainable, renewable biomass-based charcoal for the iron and steel industry in Brazil |
| Country(ies) | Brazil, Brazil |
| UNDP-GEF Technical Team | Energy, Infrastructure, Transport and Technology |
| Project Implementing Partner | BRA10 (Brazil) |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| The objective of the proposed UNDP/GEF initiative is to reduce the greenhouse gas emissions from the iron and steel sector in the Brazilian State of Minas Gerais, by (i) developing and demonstrating enhanced, clean conversion technologies for renewable, biomass-based charcoal production, and (ii) implementing an effective, supportive policy framework. The renewable biomass resources for charcoal production are obtained from existing or new, sustainably-grown eucalyptus plantations. |

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| Other Partners | *(not set or not applicable)* |

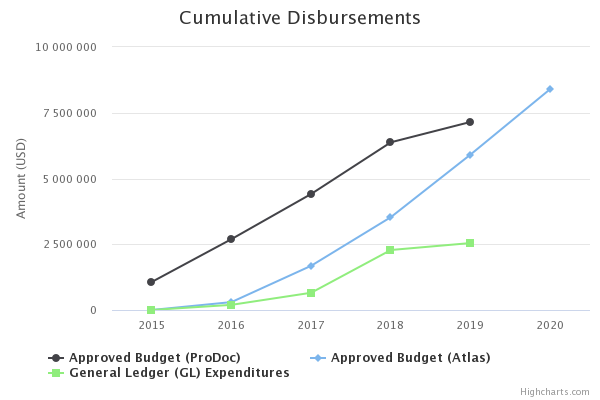
# Overall Ratings

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| Overall DO Rating | Satisfactory |
| Overall IP Rating | Satisfactory |
| Overall Risk Rating | High |

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **To develop and demonstrate enhanced, clean conversion technologies for renewable, biomass-based charcoal production, supported by an effective policy framework.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Number of commercially demonstrated efficient charcoal conversion technologies. | at least three (3) technological concepts under development by private firms[1]; no (0) commercial demonstration (as of 2013). | *(not set or not applicable)* | at least three (3) charcoal production plants in commercial operation;  at least three (3) successful business models;  at least one (1) proven conversion technology | Tender mechanism launched in June 2017 and selection process of partner companies finalized in September 2017, which resulted on the selection of 8 proposals of 7 companies in the following four lines of support:  1) Installation or expansion of productive capacity of charcoal: Companies selected: Biocarbono Produção e Comércio de Carvão Ltda.; PCE Participações, Consultoria e Engenharia Ltda .; Plantar Empreendimentos e Produtos Florestais Ltda .; Rima Industrial S.A.; Meloe Participações Ltda ME.  2) Improvement of processes in the production of sustainable charcoal: ArcelorMittal Brazil.  3) Burning of gases generated in the production of sustainable charcoal: ArcelorMittal Brazil.  4) Technological arrangements for the use of sustainable charcoal and / or its co-products in the production of pig iron, steel and ferroalloys: Vallourec Soluções Tubulares do Brasil S.A.    With the abovementioned support, the project aims at achieving the following goals: at least three (3) charcoal production plants in commercial operation; at least one (1) proven conversion technology; at least three (3) successful business models.    However, during the contracting phase, one company (Fazenda Guaxupé – Meloe) gave up before signing the contract, claiming inconsistency of some elements presented on its proposal that could hamper the implementation of the project. In addition, the Biocarbono Produção e Comércio de Carvão Ltda gave up signing the contract due to a board decision.    The Tender Mechanism is projected to result in a disbursement of approx. USD 2,5 million The financial counterpart of the 6 proposals sum up approx. USD 14,7 million, which is considered an important achievement of the projects in terms of direct co-financing from private sector (especially because the Fundo Clima was not and is still not available due to its restructuring by Brazilian legislation). (1 USD = R$ 3,49).    The contract with Plantar was signed in December 2017 and first installment disbursed, after the approval of the executive plan, in February 2018. Second disbursement is scheduled to July 2018.    The Contract with RIMA was signed in February 2018 and first installment disbursed in April 2018, after the approval of the executive plan. Second disbursement is scheduled to June 2018.    Vallourec signed the contract in June 2018 and the first disbursement is expected to happen in July 2018.    Arcelor Mittal received the contracts for both propposals, which are expected to be signed until July 2018.    PCE’s contract is also expected to be signed by July 2018. Its partner, Cossisa, is waiting for qualification documentation to be released by the municipal government.    The project also hired one external consultants to spot-check RIMA’s and Plantar’s activities, since this auditing is a mandatory process foreseen by contracts and pre-requisites for the disbursement of the second installment. Another selection process was initiated in June 2018 to hire the consultant that will audit Vallourec, ArcelorMittal and PCE. | As reported in the previous year, the tender mechanism was launched in June 2017. The selection process finalized in September 2017 and eight (8) proposals, from seven (7) companies, were call to sign contracts.    It is worth registering that seventeen (17) proposals were received and nine (09) reached necessary score to be eligible for support. Due to budget constraints, only eight (8) proposals were called to sign contracts. As two companies (Meloe and Biocarbono) withdrew their proposals after being offered contracts, the last classified proposal, burning of gases (Category 3) by Rima Industrial, was called to sign contract. After a period of negotiations, Rima's contract for Category 3 was signed in January 2019.    Currently, within the tender mechanism all seven (07) hired proposals, from five (05) companies, are under execution. The represent four (04) charcoal production plants and one (01) steel mill in commercial operation:  - 02 charcoal production commercial plants with metallic kilns (PCE, Rima).  - 02 charcoal production commercial plants with brick kilns (ArcelorMittal, Plantar).  - 01 steel mill that uses charcoal byproducts in ore preparation processes (Vallourec).    The implementation status of each supported commercial site is as follows:  - Plantar, Category 1 (charcoal production): has already received 50% of the resources and is operational since July/2018. The remaining 50% (results payment) is expected to be made in September/2019, after auditing. Plantar has already informed the project that the expected gravimetric yield increase has been reached since March/2019.  - Rima, Category 1 (charcoal production): has already received 50% of the resources and is operational since June/2018. The remaining 50% (results payment) is expected to be made in September/2019, after auditing.  - Vallourec, Category 4 (use of charcoal in iron and steel production): has already received 50% of the resources and is operational since October/2018. The remaining 50% (results payment) is expected to be made in November/2019, after auditing. Vallourec informed that its GHG emissions reductions targets were reached in March/2019.  - ArcelorMittal, Category 2 (improved production processes) : has already received 50% of the resources and is operational since December/2018. The remaining 50% (results payment) is expected to be made in December/2019, after auditing.  - ArcelorMittal, Category 3 (burning of gases): received the first payment in August/2018. Given the complexity of the as burning furnace that will be installed, the conclusion of its construction was moved to September/2019.  - PCE/Cossisa, Category 1 (charcoal production): received the first payment December/2018. Operation is scheduled to begin in July/2019.  - Rima, Category 3 (burning of gases): contract was signed in January, 2019 and first payment was made in May/2019. Operation is scheduled for July/2019.    Given the progress in implementation, a selection process was launched last May (28th) to hire the auditing firm that will certify emissions reductions for results payment. Results payment for Plantar, Vallourec, ArcelorMittal (category 2) and Rima (Category 1) are expected to be made this year. PCE, ArcelorMittal (Category 3) and Rima (Category 3) results payments are expected to happen during the first quarter of 2020.    Regarding business models, a recently concluded consultancy analyzed the following business models, supported by the project (tender mechanism and demonstration units):  - Charcoal production with metallic kilns (medium/large producers) and burning of pyrolysis gases;  - Charcoal production with metallic kilns (medium/large producers) and reuse of pyrolysis gases;  - Charcoal production with rectangular brick kilns (medium/large producers);  - Charcoal production with rectangular brick kilns (medium/large producers) and burning of smoke;  - Charcoal production with circular brick kilns (small/medium producers) and burning of smoke.    Results of the analysis will be disseminated in the next months.    Finally, concerning proven conversion technologies, besides those supported via tender mechanism, the partnership with University of Viçosa (UFV) is working on testing and validating the "fornos-fornalha" (kilns-furnace) system. Two “fornos-fornalha” demonstration units were installed and are in use by producers within commercial sites in Zona da Mata region (small producer) and in Northwest of Minas Gerais (medium sized producers). The conclusion of such studies is due in September/2019.    Regarding results registered here, the following documents were added to the PIR Library:  Outcome 2: Presentation summarizing business models analysis.  Outcome 2: Demonstration Units location and status.  Outcome 3: Summary of tender mechanism results. |
| Average gravimetric yield implemented technologies | 25% for small producers (hot-tail) and 29% for industrial (brick kiln) | *(not set or not applicable)* | 32% or better | Contract resulting from the Tender mechanism were signed as informed above.    Progress on gravimetric index will be monitored throughout the second semester of 2018 and 2019 in accordance with the MRV methodology elaborated in the second semester of 2017 and concluded in the first semester of 2018. Thus, progress on gravimetric index will be monitored in the second semester of 2018 or during 2019, depending on the contracting processes.    The University of Viçosa (UFV) is already monitoring progress in the gravimetric index for the demonstration units built in Zona da Mata. | Technologies supported within the tender mechanism have been demonstrating steady progress towards achieving gravimetric yields higher than 32%. Results will be audited at the end of tender mechanism contracts, yet the following performance is expected:  - Metallic kilns: 36% (DPC) and 35% (Rima).  - Brick kilns: 35% (Plantar and Arcelor).    For small producers, the kilns-furnace system (UFV) is expected to reach over 30% in gravimetric yield. Results of field tests in commercial demonstration units will be disseminated in September/2019.    It is necessary to register that the companies supported within the framework of the tender mechanism have to present monthly monitoring reports on progress, starting the month after they start operating. Therefore, reports on emission reductions and gravimetric yield increase are being collected since July/2018.    The MRV platform is ready and available in the B2ML cloud (see: http://sidsus.b2ml.com.br/sidsus/) since December 2018. Companies supported within the tender mechanism have been trained in the use of the platform and requested adjustments to facilitate data entry (currently under negotiation with the developer). |
| Policy and regulatory framework (for renewable charcoal use in Minas Gerais)[1] | No strategy in place | *(not set or not applicable)* | 4 (strategy adopted) | No strategy in place yet. However, progress towards goals have been achieved during this PIR period.  Analysis of the current institutional and normative framework of the iron and steel sector in Brazil and MG concluded in the second semester of 2017.  During the Steering Committee’s meeting held in December 2017, it was decided that a consultant will be hired to lead and coordinate the elaboration of the Policy and regulatory framework, in close collaboration with all stakeholders. Selection of the consultant is under execution.  In April 2018, the project organized a workshop in Belo Horizonte with the aim of presenting the conclusions of the analysis on: i) the state of the art of clean renewable charcoal production chains for the Brazilian iron and steel industry, taking into account the environmental impact, efficiency and economic viability; ii) Institutional and Normative Framework of the Brazilian Steel Sector, iii) mapping, measurement and evaluation of the technological options for the use of co-products obtained during the process of converting wood into charcoal and iv) financial incentives for the sustainable charcoal production.  Private sectors, partners and governmental institutions attended the event. This workshop was conceived to be the starting point for the elaboration of a sustainability strategy for Brazilian iron and steel sector. Also, it was an opportunity for promoting debate and knowledge sharing, as well as an opportunity to check if there were contradictions and/or criticisms to the consultancies’ findings.    A second workshop, focused on financial incentives is schedule to happen during the last week of June 2018. | All base studies were finished by the first semester of 2018. Yet, progress in this indicator has been delayed due to (political and economic) changes in the federal and state governments since 2016, holding of general elections in 2018, and difficulties in finding local consultants with the necessary professional experience and technical knowledge to support the sustainable charcoal strategy development (as envisioned in the PRODOC).    To overcome that last problem, the project's team proposed and the Advisory Committee approved hiring a team to support the development of the sustainable charcoal strategy. As a consequence, a consortium of two companies was selected in May/2019 through an open competition and should starting working by July/2019, as soon as the consortium receives formal approval by competent authorities.    It is important to register that both the private sector, the government of Minas Gerais and Advisory Committee members were involved in analyzing the results of all base studies that were hired by the project. As per suggestion by the Ministry of Development (currently Ministry of Economy), the project created a technical group to formalized private sector involvement in the analysis of each consultancy product. This group is coordinate by Associação Mineira da Indústria Florestal - AMIF (Forestry Industry Association in Minas Gerais) and also comprised of pig iron (Sindifer), steel (Aço Brail) and ferroalloys (Abrafe) producers associations and a professionals association (ABM).    After careful analysis of all studies and of the private sector take on the subject, the project's Advisory Committee identified that, in order to actually promote the use of renewable biomass-based charcoal by the iron and steel sector, the policy framework should adopt a sector wide approach.    In order to develop such policy framework, a first draft of the "sustainable charcoal-based iron and steel industry strategy" will be elaborated taken into consideration the studies hired by the project. This draft will be presented in discussions that will take place in Minas Gerais and in Brasilia with participation of the Federal Government, Minas Gerais Government, academia, industry representatives and civil society. Given the level of involvement of the academia, industry and agriculture organizations, and the private sector in the execution of the project to date, it is reasonable to assume that the discussions will be successful.    Due to transition and reorganization in Minas Gerais state, since the elections in 2018, the project does not yet have an official representative from the state government. Since 2016, Emater, Minas Gerais rural technical assistance agency, supports field activities and has been indispensable in knowledge dissemination, but they are not formally authorized to act as representatives in the Advisory Committee. As a consequence, due to essential natural of Minas Gerais government in the discussions of the charcoal-based industry sustainability strategy, contact was reestablished with the state government in June and appointment of new representatives is being negotiated.    The final version of the strategy, approved by the project's Advisory Committee should be published by the second quarter of 2020.    However, the charcoal-based industry strategy is not the only contribution that the project has in what regards implementing a policy framework to promote the use of renewable charcoal in the iron and steel industry. The project contributed to the discussions that resulted in including renewable charcoal production incentives in the recently approved (June/2019) National Plan for the Development of Planted Forests (Plantar Florestas). The project also supported partners in the discussions that resulted in DN 227/2018, the first Minas Gerais norm focused on charcoal production. DN 227/2018 establishes procedures to monitor and reduce atmospheric emissions of charcoal kilns from planted forests and to evaluate air quality in its surroundings. Both documents, Plantar Florestas and DN 227/2018 were uploaded to the File Library. |
| GHG emissions reductions (Mton CO2eq) | 0 | *(not set or not applicable)* | direct: 432 kton (CCM-2)  indirect: 700 kton/yr (CCM-2); 200 kton/yr (CCM-3) | Consultant hired in June 2017 for the development of the MRV methodology for charcoal production and benefices of the GHG finalized. Training sessions on MRV methodology to companies held in May 2018.    Emissions reports will be submitted monthly by the companies after the second installment is disbursed and the companies are ready to start operations.    The online MRV platform is under development since May 11th, 2018 and shall be ready for use by December 2018. | The commitment of all tender mechanism supported companies shall result in 300,315 tons/year of charcoal production capacity with more efficient technologies and an average emissions reduction of 1,415 kg CO2 eq/ton of charcoal. Therefore, the project expects that around 425 kton of emissions reductions will be achieved each year when all tender mechanism contracts are concluded.    By the end of the project, target emissions reductions shall be exceeded, as two more calls will support more cleaner, more efficient, charcoal production commercial sites were recently launched (July/2019). The first call is aimed at supporting small producers to adopt better kilns and production processes. In addition, the training program seeks to install at least three more kiln-furnace system demonstration units and strengthen research and education institutions in Minas Gerais to foster continuous technology improvement and training support to small and medium charcoal producers.    Emissions reductions are measured and monitored in accordance with the MRV methodology developed by the project and shall be registered in the MRV online platform (see: http://sidsus.b2ml.com.br/sidsus/). After testing done in March 2019, the platform is undergoing minor adjustments. the creation of a tool to facilitate data collection is under negotiations.    A summary of tender mechanism expected results can be found at the PIR Library. |
| Investment capital leveraged for efficient charcoal production | 0 | *(not set or not applicable)* | US$40,000,000 | Even though no specific line of financing was opened for sustainable charcoal production, the project achieved a counterpart of approx. USD 14,7 million from companies that have proposals approved by the bidding process. This is considered an important achievement, especially if considered the delicate economic moment for the iron and steel sector in 2017, when several companies stopped production activities (the sector’s idle capacity was about 30% during the first trimester of 2018, according to Aço Brasil Institute, which represents the steel industry). | Companies supported with the tender mechanism framework offered R$ 56 million in co-finance, which corresponds to six times the expected co-finance of the private sector in PRODOC (which was US$ 2.9 million). This partially compensating the unavailability of Climate Fund/BNDES resources for loans (US $ 25 million).    Advisory Committee members have already offered R$ 5.7 million in co-financing (cash and in-kind).    A summary of tender mechanism expected results can be found at the PIR Library. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 1**  **A policy framework has been implemented to promote the use of renewable biomass-based charcoal by the I&S sector, supported by an internationally recognized system for monitoring achieved GHG emission reductions** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Renewable charcoal strategy in MG | No strategy to stimulate charcoal technology development (0)  A ban on the use of non-renewable charcoal is in place in MG (forestry law No. 18.365/09). | *(not set or not applicable)* | Detailed strategy designed and adopted by MG State Government (1) | As an approach to speed up the construction of the strategy, the Project’s steering Committee determined that a specialist on development of public policies should be hired. The contracting is in process of finalization and related activities planned to be carried out in the second semester of 2018 and the first semester of 2019.    The Ministry of Agriculture and Livestock (MAPA) formally took sit as a member of the Project’s Steering Committee. In addition, Embrapa Florestas, which is currently responsible for proposing a draft text for the Strategic Plan for Planted Forests, was invited to take part in the Project’s Steering Committee.    Due the changes in Minas Gerais government, the GAP is undergoing restructuring.  The Project has initiated discussions with the private sector, partners and the MG government in order to develop a sustainability strategy for the Brazilian iron and steel sector. | Progress in this indicator has been been delayed due changes in the political setting (impeachment in 2016 and general elections in 2018), economic crisis that hindered public investment and caused significant turnover in Minas Gerais government staff, and also difficulties in finding local consultants with the necessary professional experience and technical knowledge to support the sustainable charcoal strategy development (as envisioned in the PRODOC).    Yet, as explained in the objectives indicator section above, base studies were concluded and discussions were held with the government (federal and state levels) and the private sector. Also, a consortium was selected in May/2019 to support the elaboration of the strategy.    It is expected that by the end of 2019, a draft strategy will be submitted to public consultation, after further discussions with government, academia, civil society and the private sector.    In addition, it is necessary to register that the project has already contributed to the development of relevant components in the policy framework to promote the use of renewable charcoal in the iron and steel industry. In the national level, the project contributed to the discussions that resulted in including renewable charcoal production incentives in the recently approved (June/2019) National Plan for the Development of Planted Forests (Plantar Florestas). In the state level, the project also supported partners in the discussions that resulted in DN 227/2018, the first Minas Gerais norm focused solely on charcoal production. Both documents, Plantar Florestas and DN 227/2018 were uploaded to the File Library. |
| MRV system for charcoal production and GHG benefits for I&S sector agents | No system in place (0) | *(not set or not applicable)* | MRV system implemented and operational (1) | a) MRV methodology concluded.  b) Technical Consultancy hired in May 2018 to provide methodological solutions and tools (including Web platform) to monitor, verify and report the achieved reductions by the I&S sector (Business Analyst/IT-Software). Platform is being developed and expected to be operational by December 2018. | The MRV methodology was developed in collaboration with the private sector and based on accepted Clean Development Mechanism methodologies. It was concluded in March/2018, which allowed for the development of the online platform to take place during the next months.    The first version of the MRV system was concluded in December 2018. Training/testing was executed in the first quarter of 2019 with participation of the companies supported by the tender mechanism, when the need for adjustments was identified. Companies asked for the inclusion data import/export tool to expedite and avoid errors in data entry (is currently under negotiation with the developer).    MRV platform is currently available in the developers cloud (see: http://sidsus.b2ml.com.br/sidsus/) and a training session to the Advisory Committee on the system will be held by September 2019. |
| Acceptable methodologies and criteria to assess charcoal production chains. | No acceptable methodology in place (0). | *(not set or not applicable)* | Acceptable methodologies in place to perform quantitative evaluations/ assessments (1) | Methodology (product 1 of the consultancy of production chains) concluded and approved by the sector. MRV platform being constructed. Implementation and monitoring planned to be undertaken in the second semester of 2018 and first semester of 2019. | Much progress has been achieve in this indicator. Analytical tools and methodologies have been devised and tested in order to assess the environmental impact and resource efficiency of clean, renewable biomass-based charcoal production chains. Also, tools for the assessment of economic and social performance have already been developed.    Within the project’s MRV system there are methodologies to assess emissions reduction in three clusters: gravimetric yield (charcoal production), pyrolysis gases burning, and fuel substitution. Methodologies were developed with the support of the private sector and based on Clean Development Mechanism accepted methodologies.    Economic performance will be assessed using indicators devised by the project within the consultancy that analyzed “alternative charcoal production chains”.    For social and environmental impact of charcoal production, in general, the project has selected methodologies developed and tested by stakeholders:  - Socioenvironmental performance of commercial facilities supported within the tender mechanism is currently under review by Imaflora, based on indicator set up by PROMOVE, a program developed by the Sustainable Charcoal Working Group (comprised of iron and steel companies, civil society and ILO).  - Social, economic and environmental performance of small charcoal producers will be assessed with “ISA” (Sustainability Indicators in Agrosystems) methodology, developed by the Minas Gerais Government.    On this indicator, the following documents were added to the PIR Library:  - Presentation on MRV methodologies.  - Monitoring sheets for emissions reductions reporting.  - Alternative charcoal production chains analysis. |
| Financial incentives for (a) use of renewable charcoal by I&S sector in MG;  (b) investment in efficient, clean charcoal production chains | (a) No incentives for renewable charcoal use (0);  (b) No incentives for investment in efficient, clean charcoal production chains (0). | *(not set or not applicable)* | (a) Incentives for renewable charcoal use in place (1);  (b) Incentives in place for investment in efficient, clean charcoal production chains (1). | As informed in the last PIR exercise, a new ToR was elaborated and launched in July 2017. In order to guarantee the quality and adequacy of the products, the consultancies deadline was extended and its results submitted to discussions with both the government and the private sector. The consultancy is expected to be concluded by August 2018. | A first financial incentives assessment consultancy was concluded in August 2018. This study, along with the business models consultancy and the two technical and economic feasibility studies on charcoal production with kilns-furnace system will subsidize the elaboration of the renewable charcoal strategy.    A second consultancy, to assess the results of financial incentive schemes is expected to be hired after conclusion of contracts under the tender mechanism.    Incentives for investment in efficient, clean charcoal production were included recently approved (June/2019) National Plan for the Development of Planted Forests (Plantar Florestas). |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **The technology and human capacity base for clean charcoal conversion in Brazil is strengthened by technical assistance and targeted training.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Charcoal technology test program carried out. | Isolated technology development efforts with low sector coordination level (0). | *(not set or not applicable)* | Concerted charcoal technology development program executed (1) | The charcoal technology testing programme has already been initiated. with the construction of the first demonstration unit in Zona da Mata Region. As planned in the letter of agreement, UFV is already conducting tests and experiments to validate and adjust the technology that has been adopt by the Project (Kiln/furnace system). The same tests and experiments will be conducted in the Northwest region as soon as the second demonstration unit under UFV responsibility is constructed by July 2018.    Additionally, the Project is negotiating the construction, in the Central region of Minas Gerais, of a third demonstration unit with São João Del Rei University (UFSJ), which is interested in researching improvements in the technology.    It is important to mention that each demonstration unit will be located in regions with significant charcoal production and diverse production scales, as well as climatic, geographic and economic characteristics.    Additionally, as previously informed, the project has been cooperating with State Forest Institute (IEF) for the development of a database of charcoal production. Due to recent changes in the IEF structure, and once Minas Gerais has adopted the national control system for forest products (Sinaflor), the Project contribution on the subject is under review. | The charcoal technology test program is under way and shall be expanded in the next few months to encompass all main charcoal production regions in Minas Gerais.    Two demonstration units (DU) were already were built within commercial charcoal production sites and act as base for training and for operational and structural studies carried out by the University of Viçosa (UFV), which are scheduled to be concluded by September/2019. The first DU was built in December/2017 in the Zona da Mata region, closer to UFV headquarters, where rainy weather, “rugged” geography and charcoal production with “encosta” kilns (built within hill slopes) prevail. The second DU was built in August/2018 the Northwest region of Minas Gerais, with semiarid climate, plainer geography and predominance of circular (small producers) and rectangular (medium and large producers) brick kilns.    In order to foster continuity for the charcoal technology development and expand knowledge dissemination and training, a call was developed to support research and education institutions in Minas Gerais not only to build at least three new demonstration units, but to link them to research and rural extension activities. The goal is to have at least one additional DU in each of these main charcoal production regions in the state: North, Jequitinhonha Valley and Central/Metropolitan.    Summary information on the Demonstration Units can be found in the PIR Library (Outcome 2: Demonstration Units location and status). |
| By-products utilization technology program carried out. | Isolated private initiatives to develop technologies for utilization of charcoal by-products (0). | *(not set or not applicable)* | Concerted by-products technology program carried out (1). | Specialized technical consultancy to measure and evaluate technologies for the exploitation of charcoal co-products concluded in November 2017.    Results of the consultancy are already being discussed with the private sector and shall be included in the National Charcoal Forum that will be held in May 2019. | A concerted by-products technology program is being carried out and encompasses:  - By-products technological options mapping and feasibility assessment, concluded in December/2017;  - Publication of two technical documents (results of the technological options assessment and guide on how to use the most cost-effective technologies), which is under development and shall be made available during the second semester of 2019; and  - Training on by-products technological options (seminar and workshop were held in May/2019, during the National Charcoal Forum).    During the National Charcoal Forum, organized in May/2019 in Belo Horizonte (MG), the results of the by-products consultancy were presented and training workshops were offered. The Forum was a success, with 330 participants during a two days program. The event's programme can be found here: http://www.sif.org.br/@carvao2019/index.html. |
| (a) Number of developed business models; (b) number of expressions of interest (EoI) from local charcoal producers; (c) seminar/workshop on efficient charcoal production chains. | (a) Some business models conceived but not commercially proven yet (0); (b) No (0) EoI’s; (c) No (0) seminar held; | *(not set or not applicable)* | (a) At least four (4) different business models developed and accepted by charcoal producers; (b) At least six (6) EoI’s signed; (c) One (1) seminar held. | With the support of Sebrae-MG, the project launched a TOR and select a company to develop the business plan for the charcoal production in the Zona da Mata region, based on the adoption of the Kiln and furnace technology, which is scheduled to be conclude in July. The same is expected to take place in the region of João Pinheiro (Northeast of Minas Gerais), where the second demonstration unit will be constructed.    The results of the proposals selected in the tender mechanism will provide subsidies to the development of business models focusing on large scale companies.    The adoption of business models by independent charcoal producers will be fostered during the second semester of 2018, when a second tender mechanism will be launched. | Progress have been made in this indicator as a consultancy, concluded in June/2019, was hired to register, analyze and make improvement recommendations to business models adopted by the companies involved in the project's tender mechanism and the kilns-furnace system offered by the project to independent charcoal producers. Also, two additional consultancies were hired to develop business plans focused on independent charcoal producers, based on the kilns-furnace.    The business models analysis consultancy resulted in a comprehensive record of the following business models:  - Charcoal production with metallic kilns (medium/large producers) and burning of pyrolysis gases;  - Charcoal production with metallic kilns (medium/large producers) and reuse of pyrolysis gases;  - Charcoal production with rectangular brick kilns (medium/large producers);  - Charcoal production with rectangular brick kilns (medium/large producers) and burning of smoke;  - Charcoal production with circular brick kilns (small/medium producers) and burning of smoke.    In order to foster adoption of such business/technological models, the consultancy included recommendations for public policy. In what regard training on the subject, a seminar focused on business models will take place in October/2019.    It is important to notice that, in order to foster the adoption of more efficient business models by independent charcoal production (usually small and medium sized producers), the project also hired the development of two business plans. The first business plan was concluded in August/2018 and encompasses the use of the kilns-furnace system in the Zona da Mata region. The second business plan, adapted to the Northwest region of Minas Gerais, shall be delivered by August/2019. Based on the technical and economic feasibility studies delivered within both business plans consultancies, a training course were offered during the National Charcoal Forum last May/2019, in partnership with Sebrae Minas Gerais and UFV .    Also, a call was recently launched to support small charcoal producers in adopting more efficient technologies. Training on the business models registered by the project shall be offered to the producers.    On this target, the following documents can be found in the Library:  Outcome 2: Presentation summarizing business models analysis.  Outcome 2: Business plan for Zona da Mata charcoal production. |
| (a) Training material; (b) Number of training programs implemented | (a) No training material developed (0); No training program (0) | *(not set or not applicable)* | (a) Training material developed (1); At least three (3) training programs being executed. | A training process for multipliers regarding the construction and operation of the kiln and furnace system was held during the installation of the demonstration unit in Zone da Mata region. Six people were trained from Emater-MG and Senar-MG, which are the main institutions for rural training and support in Minas Gerais.    The training programme was held with the support of several partners: Federal University of Viçosa (UFV), the Company of Technical Assistance and Rural Extension of Minas Gerais (EMATER-MG), National Service of Rural Learning (SENAR-MG) and Brazilian Service to Support Micro and Small Enterprises (Sebrae-MG). As informed in the last PIR period, all abovementioned partners are, one way or another, contributing to the development of a comprehensive training programme (output 2.3 and output 2.4), that include the construction and testing of 2 demonstration units of sustainable charcoal production led by UFV, one in Zona da Mata and another in Northwest region in MG.  As part of the training program for charcoal producers that is under development, the construction of a third demonstration unit (DU) is under negotiation with Federal University of São João Del Rei (UFSJ). During the construction of such DU, charcoal producers and kiln constructors will be trained by Senar-MG and Emater-MG.    During the second semester of 2018, Senar-MG will conduct test courses on sustainable charcoal production to local charcoal producers.    The training material is being developed. Draft manuals (2) for the construction and operation of kiln and furnace system will be tested during multipliers’ training in June and July. Printing and distribution will begin in September 2018. The elaboration of a training video on sustainable charcoal production has already been contracted and expected to be concluded in August 2018.    Sebrae-MG is supporting the development of training materials for charcoal production management.  It is important to mention that UNDP and UFSJ are negotiating the terms of the MoU that will allow the construction of a DU in the city of Sete Lagoas where the university has a campus. The DU will mostly serve as a capacity building and research structure for students, as well as training center for multipliers and small charcoal producers on best practices.    The mapping of the area for the construction of the second DU took place in the first semester of 2018. The DU will be constructed in July 2018 in the municipality of João Pinheiro. In this location 5 additional multipliers will be trained in the constructions and operation of the kiln and furnace system.    There is also a possibility of construction of a forth DU in the North of Minas Gerais. This possibility is being discussed in collaboration of another GEF/DIM Project – Bem Diverso (BRA/14/G33). Bem Diverso works with environmental conservation through the promotion of sustainable use of biodiversity. In north of Minas Gerais, there is a large area with Eucalyptus plantations, which was recently being retaken by traditional communities (Geraizeiros). A field panel, which consists of a meeting with forestry producers and technicians who are familiar with the reality of forestry production in the Alto Rio Pardo region, was organized in June 2018 for the presentation of the sustainable steel project and for surveying the costs of forest production, observing the methodology for calculating production costs and indicators technical. The panel’s results will subsidize the decision-making regarding the construction of the forth UD. | During the last 12 months, great progress was made in what regards developing training material and executing training programs.    Regarding training materials, the project was supposed to develop contents on charcoal production, business models and byproducts. Currently:  - Charcoal production training video (kilns-furnace system) was completed in June 2019.  - Construction manual for kilns-furnace system completed (printing scheduled to August/2019).  - Operation manual kilns-furnace system completed (printing scheduled to August/2019).  - Business plans for Zona da Mata and Minas Northewest will be published during the second semester of 2019, along with all other studies carried out by the project;  - Byproducts guidebook will be made available during the second semester of 2019.    With respect to the three training programs, they were developed with support from the University of Viçosa (UFV), Emater Minas Gerais (local rural technical assistance agency) and Senar Minas Gerais (rural training service linked to the agriculture union), with focus on the following public:  - Multipliers  - Producers  - Decision-makers    The training programs offer content on kilns construction and operation, business management, byproducts, carbon balance, and planted forests sustainable management.    During the construction and operation phases of the demonstration units, practical training was offered to multipliers form Senar MG, Emater MG and Sebrae MG.    Training sessions (courses and "field days") on charcoal production for producers and students have been offered in partnership with UFV and Emater MG.    Last May 2019, as part of the National Charcoal Forum activities, seven training courses (forestry, byproducts, wood properties, business management, construction and operation of the kilns-furnace system) were offered with 84 participants.    Also during the National Charcoal Forum, results of the studies on byproducts and production chains were presented to a public of 330 participants.    In total with the project already offered around 20 training sessions to over 300 participants (not including the public in the National Charcoal Forum).    It is also worth registering that the partcnership with Senar Minas Gerais resulted in the inclusion of a course on sustainable charcoal production in their portfolio.    The project is also organizing training in sustainable planted forests management and sustainable charcoal production to 100 extension workers from Emater MG in 5 different cities of Minas Gerais State. This training initiative was a demand from Emater MG, which has resumed working in forestry with the support of the project.    It is necessary to register that in July 2019, the project will launch a call for partnerships in technology development and training on sustainable charcoal production. The goal is to support the construction of three additional demonstration units and disseminate training activities to other regions in Minas Gerais with significant charcoal production (regions: Norte, Central/Metropolitana and Vale do Jequitinhonha).    The training material developed in partnership with UFV, Emater and Senar can be found in the PIR Library. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 3**  **Commercial charcoal production facilities are built under a competitive bidding mechanism to deliver objectively verifiable renewable, biomass-based charcoal and GHG emission reductions.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Tender mechanism negotiated and formalized | Proposal for tender mechanism prepared by MMA (0) | *(not set or not applicable)* | Tender mechanism negotiated and formalized (1) | Tender mechanism concluded. 08 proposals of 07 companies selected.  • 2 companies withdrew their proposals (Melo and Biocarbono).  • 3 companies with contracts signed (Plantar, Rima and Vallourec) .  • 1 company has already received contracts to be signed (ArcelorMittal).  • 1 company is finalizing its qualification process (documentation expected to be issued by local government by June 25th, 2018). | This target has already been achieved. The tender mechanism was negotiated, formalized and launched in July/2017. In total, 17 proposals were received and nine reached necessary score to be eligible for support. Given budget limitations, only the first eight better ranked of the nine eligible proposals were called to sign contracts. As during the contracting phase two companies declined signing the contract, with the approval of the project's Advisory Committee, the last eligible proposal was called to sign contract with the project.    A new call to support independent charcoal producers to adopt improved production technologies was designed, approved by the project's Advisory Committee and shall be launched by July 2019. |
| Consultancies to support project development | No (0) consultancies | *(not set or not applicable)* | At least three efficient charcoal conversion facilities are ready for the investment phase of the program, | No company requested consultancies to support the project development. Resources will be reallocated to the second bidding process that shall be launched during the second semester 2018, focusing on independent charcoal producers (who demand such support). | Resources were reallocated to the second bidding process to be launched in July/2019. This bid is focused on independent charcoal producers (who will demand such support).    This reallocation was approved by the project's Advisory Committee as in Minas Gerais state around 70% of the total charcoal production comes from small and medium sized producers - who did not respond to the tender mechanism. |
| (a) Number of efficient, clean charcoal production facilities in place; (b) Charcoal production per plant (tons/yr); (c) Wood-charcoal conversion rate per plant (%); (d) GHG emission reductions per plant (tons CO2eq/yr) | (a) No (0) facilities in place; (b) No production (0 tons/yr); (b) baseline technology conversion rates are 25-30%; (c) No emission reductions (0 ton CO2eq/yr). | *(not set or not applicable)* | (a) At least three (3) commercial facilities procured and operating, including one small-scale (under 1,000 tons); (b) 80,000 tons charcoal produced per year; (c) at least 33% conversion rate (weighted average); (d) 21,6 kton CO2eq/yr | Contracting delayed due to the bureaucratic process (presentation of documents from private sector). However, delays will not hamper the implementation of predicted activities. The commitment of all selected companies might result in approx. 300.000 tons charcoal produced per year as well as 5,437.91 kg of CO2 eq/ton of charcoal, therefore surpassing the project’s goals.    Considering that 70-80% of the charcoal production of MG comes from small and medium sized producers and considering that small and medium sized companies were not contemplated by the Tender Mechanism, in the second semester of 2018, a second tender mechanism, with focus on small charcoal producers, is planned to be launched. | Monitoring data shows that this target will also be achieved in the next months, pending the conclusion of current contracts and results assessment by an independent auditing company currently under selection by the project.    Progress achieved so far in the sub-targets is as follows:  (a) Currently there are 7 charcoal production/use proposals under execution, from five companies, all in operating commercial facilities:  - 02 commercial plants with metallic kilns (Rima and PCE);  - 02 commercial plants with brick kilns (Plantar and ArcelorMittal);  - 01 steel mill that uses charcoal byproducts in ore preparation processes (Vallourec).    (b) The commitment of all tender mechanism supported companies shall result in 300,315 tons/year of charcoal production capacity with more efficient technologies.    (c) Technologies supported within the tender mechanism have been demonstrating progress towards achieving gravimetric yields higher than 33%. Results will be audited at the end of tender mechanism contracts, but the following performance is expected:  - Metallic kilns: 36% (DPC) and 35% (Rima).  - Brick kilns: 35% (Plantar and Arcelor).    (d) The commitment of all tender mechanism supported companies shall result in 300,315 tons/year of charcoal production capacity with more efficient technologies and an average emissions reduction of 1,415 kg CO2 eq/ton of charcoal. Therefore, around 425 kton of emissions reductions will be achieved each year.    It is also necessary to register that, of the 7 contracts in execution, 4 are already in the operations phase with the new arrangement or technology. Of the 3 proposals still under implementation, one had contract signed in January and the other plans to finalized construction by September/2019.    Regarding achievement of individual targets, Vallourec e Plantar already informed the achievement of their results related to GHG reductions emission and/or gravimetric yield increase.    Results in this indicator shall be improved as a call focused on independent charcoal production was approved by the project's Advisory Committee and is scheduled to be launched in July/2019.    A summary of the tender mechanism expected results can be found in the PIR Library. |
| (a) Documents and presentations with best practices; (b) international event to disseminate clean charcoal production | (a) No documents (0); No event (0) | *(not set or not applicable)* | (a) Documents and presentations compiled (1); (b) International event held (1). | Product with expected activities to be developed in 2019. | Progress in this target is on track. A consultancy on best practices was hired and in implementation. Partial results will be presented in September / 2019 and a knowledge dissemination strategy for best practices is currently being developed.    An international event is scheduled to take place in 2020, closer to project conclusion. |
| **The progress of the objective can be described as:** | | **On track** | | | | |

# Implementation Progress



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| Cumulative GL delivery against total approved amount (in prodoc): | 35.6% |
| Cumulative GL delivery against expected delivery as of this year: | 35.6% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 2,545,043 |

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| **Key Financing Amounts** | |
| PPG Amount | 50,000 |
| GEF Grant Amount | 7,150,000 |
| Co-financing | 36,800,000 |

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| **Key Project Dates** | |
| PIF Approval Date | May 7, 2012 |
| CEO Endorsement Date | Jan 24, 2014 |
| Project Document Signature Date (project start date): | Jun 12, 2015 |
| Date of Inception Workshop | Mar 15, 2016 |
| Expected Date of Mid-term Review | Dec 1, 2018 |
| Actual Date of Mid-term Review | *(not set or not applicable)* |
| Expected Date of Terminal Evaluation | Oct 1, 2019 |
| Original Planned Closing Date | Jun 12, 2020 |
| Revised Planned Closing Date | *(not set or not applicable)* |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2018-08-29 |

# Critical Risk Management

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| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Financial | - Exchange rate risk  Due to electoral campaign (2º semester/2018) and transition to the new national government (1º semester/2019), exchange rates fluctuated significantly during this reporting period. From an value of R$ 3,18 per US$ in February 2018 (lowest in the year), the exchange rate reached R$ 4,168 in September 2018 (pre-elections), lowered to R$ 3,694 in November 2018 (post-elections), just to rise again to R$ 3,927 in December 2018, descend to R$ 3,723 in February 2019 and rise once more to R$ 3,957 in June 2019.  Highly fluctuating exchange rates, that even reached over 20% increase from one month to the following, have direct impact in the project's financial execution. As payments are made in Brazilian Real, contracts have been successfully concluded but with total payments up to 15% lower than the initial values registered in Atlas. Therefore, even though the project's physical execution reaches the planned progress, financial execution may be much lower than initially registered in Atlas. |
| Political | - Government policies and programmes would not be continued and project results would not be mainstreamed.  As 2018 was a general elections year, it was also expected that decision making would be hindered during the second semester of 2018 as election campaigns took place from July to October and the transition process initiated in November. Also, since the candidate to the presidency that the party in office launched was not among the leaders in polls, shifts were expected in the organizational and strategical levels of the Brazilian national government. Changes did occur not only at the national but also at the state level, with the extinction of ministries and secretariats and reorganizations in the attributions of the organs that participated in the implementation of the project. It is important to register that this reporting period was specially difficult for the Minas Gerais government, as during 2018 internal reorganization that resulted in several changes in staff assigned to monitor the project, and as the Brumadinho dam leakage required extra efforts from the new government to tackled with a environmental disaster and high number of human losses.  Restrains in decision making and changes in political guidance/priorities could delay or hamper the implementation of the project, especially in what regards putting into place the strategy to promote the use of renewable charcoal by the iron and steel sector in Minas Gerais (Outcome 1). Therefore, the project focused on the execution of activities in Outcomes 2 and 3, which had already been planned, and on preparing terms of reference and work plans for the 2019/2020 period (in order to accelerate decision making under the new government). Additionally, all decisions regarding strategic studies and procurement were submitted to the Project Advisory Committee, in order to maintain mobilization.  The project's team also worked on strengthening existing partnerships, on engaging new partners in the execution of Outcomes 2 and 3, and on mobilizing maintaining Minas Gerais participation.  It is worth registering that, with the exception of Minas Gerais government, all Steering Committee institutional members were maintained, as well as their representatives, which demonstrates that the people involved in the project's execution are highly committed to achieving results. On the other hand, Minas Gerais government was made present with the close cooperation of its rural extension and technical assistance agency, Emater, that has not only trained multipliers, but also has worked directly in the identification and selection of producers to host the second unit demonstrating the project. |
| Financial | - Economic crises and deceleration of Brazilian economy might hinder co-financing commitments, which might influence in the range of investment previously planned for the project  The economic crisis, which reached its lowest point in the second quarter of 2016 (when President Roussef's impeachment process was concluded and Brazil's GDP was -4,5%/year), has also affected the Brazilian government ability to provide co-financing. To overcome these limitations, the project's team has been monitoring news and decisions on public policy of interest to the project and negotiated / strengthened partnerships with organizations and Minas Gerais government agencies to gather support to the execution of key actions. |

# Adjustments

**Comments on delays in key project milestones**

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| **Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| After two unsuccessful calls to hire MTR consultant, the project team revised and relaunched the TOR and was finally able to find a suitable candidate. The consultant started working on June 5th and is scheduled to be in Brazil for the MR mission from July 16th to 26th. |

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| **Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| *(not set or not applicable)* |

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| **UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| MTR was expected to be undertaken on December 2018. After some delays in hiring consultant, project was able to provide draft MTR during PIR exercise. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | As reported before, the project has demonstrated great potential to build the know-how and partnerships required to achieve its results and ensure sustainability. The project has shown timely progress even with the complex political and economic scenario where economic crisis still affects the recovery of the iron and steel sector and two important changes in the federal government (in 2016 and 2019) took place. The private sector (pig iron, steel and ferroalloys) is highly interested in being involved in the project, which can be noted by the sector's broad interest in the number of proposals presented under the support mechanism and by the presence of companies and sector organizations in the discussions carried out by the project during this reporting period.    The 2018 elections and the resulting government transition at the national and state levels delayed project execution in what regards the development of the sustainable charcoal promotion strategy (Outcome 1) and required changes to be made in the training program partnerships call (Outcome 2) and in the support mechanism devised to independent charcoal producers (Outcome 3). Nevertheless, progress was achieved in Outcome 1 as the project managed to hire a consultancy team to support discussions and the development of the policy framework to promote the use of renewable charcoal by the iron and steel industry in Minas Gerais. It should be noted that discussions with the Project Advisory Committee (PAC) resulted in the decision to develop a broader renewable charcoal based competitiveness strategy for the Brazilian based pig iron, steel and ferroalloy sectors. The goal is to provide longer-term results and offer Brazil a market niche that has not yet been exploited but has already been valued by companies in the steel sector: "green steel".    Regarding Outcome 2, the concerted charcoal technology development program is in progress and has already installed two demonstration units in commercial charcoal production sites. Training materials were developed and tested in partnership with the Federal University of Viçosa (UFV) and other local organizations (Sebrae, Senar, Emater) and over 300 people (producers, technical assistance agents, students etc.) have been trained. In addition to working as a basis for improvement, testing and adaptation of the kiln-furnace technology, which not only yields but burns the gases emitted, the demonstration units knowledge dissemination and training centers. Several charcoal producing sites in Minas Gerais and other Brazilian states have already adopted the technology after visiting the demonstration units. Universities and research institutions in Minas Gerais have already demonstrated interest not only in continuing studies on the kilns-furnace system, but also in carrying out extension activities aimed at the productive sector - which indicates that training partnerships call will be a success. Finally, progress was also achieved in what regards business models for larger producers and business plans for small and medium producers, which were subject to studies that shall be disseminated in the following months.    Contracts under the tender mechanism, in Outcome 3, are all in execution. Of all seven contracts, four have already entered into operation phase with the new, more efficient processes and/or technologies and have begun measuring results via monthly reports to the project. The companies received training on the MRV methodology and on the use of the MRV platform for data registering. It should be noted that, if companies are successful (and monitoring date has shown they have achieved significant progress), the proposals under implementation offer:  - Productive capacity of 300,350 t / year of charcoal with more efficient processes and technologies, exceeding the project target of 80,000 t/year of CV;  - Average emission reduction of 1,415 kg CO2eq / t CV, which is five times the project target, which is 270 kg CO2eq/t CV.    Also under Outcome 3, the project decided to bring forward hiring a consultancy to support the identification and dissemination of best charcoal production practices. The service has already been hired and is expected to also contribute to foster gender equality in the charcoal production sector by showing practical examples of women as protagonists in the production chain.    The Mid-Term Review, one important mandatory milestone that needed to be delayed due to 2018 being a highly turbulent year in what regards political changes, was hired and the field mission is schedule to begin July 16th 2019. Additionally, a gender analysis was concluded last August with recommendations to mainstream gender in project implementation, which can increase the potential for socioeconomic benefits of the project in a sector that still has image problems due to past disrespect to labor rights.    Also in what regards project impact, a socioenvironmental performance assessment of the companies supported by within the tender mechanism should be concluded in the next couple of months. Based on an existing set of indicators created with and to the charcoal production sector, the assessment will not only demonstrate whether companies in the tender mechanism employ good practices in relevant social and environmental targets, but also will offer recommendations and solutions to subsidize the inclusion of socio and environmental performance indicators in the policy framework that the project is sill to develop to promote sustainable charcoal.    It is necessary to register that the project has also built an extensive and strategic network of partners in the different levels of the public and private sectors, including civil society representatives. The level of mobilization and governance achieved will be key to leveraging participation in the elaboration of the sustainability strategy for Brazilian iron and steel sector. Through those partnerships, the project can also work on its knowledge management strategy and consolidate its exit strategy.    It is necessary to register that the project's financial execution has been impacted by two main factors: first, there is the concentration of resources in Outcome 3 (56% of the total budget), especially in what regards performance payment within the tender mechanism - the last installment to be paid in the tender mechanism contracts, which totals about $ 1.4 million, or 20% of the project budget. Secondly, the exchange rate, that has increased steadily since September 2014 and has suffered with fluctuation of up to 20% since the general elections in October 2018.    For the next year of implementation, which is expected to be the project's final year, additional effort must be made in order to deliver the sustainable charcoal strategy and also to hire and manage partnerships related to the training program and the independent charcoal producer support calls. Mid-Term review currently in progress will certainly help the project's team and CAP do devise strategies to deal with the amount of work required to achieve those expected results in such short time.    In conclusion, implementation is proceeding as planned, with minor deviations due to risks that had already been identified in project design and, therefore, could be managed in the best possible way. Cumulative financial delivery should be mostly on track by the end of the year with the new commitments and disbursements planned. Most challenges have been overcome by constant monitoring, the team's problem solving abilities, PAC's involvement and partnership building. Therefore, despite the economic difficulties that directly impacted the steel sector, which today still has a 35% idle capacity, despite several changes in federal and state governments in the last two years, the project has achieved great progress and should deliver higher results than the expected targets. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Satisfactory | Satisfactory |
| Overall Assessment | This project has demonstrated excellent results during this last PIR exercise. As described in this document, technology has been demonstrated and 07 plants are using more efficient processes for charcoal production, with new and more efficient business models and proven technology, including through installation of 02 Demonstration Units. In this sense, the project has been able to already surpasse its GHG emissions reduction target and to test a MRV platform to the Government.  Even though policy and regulatory framework in the state of Minas Gerais is delayed, the National Plan for the Development of Planted Forests has been launched and hundreds of people have been trained on the technologies promoted by the project, with its dissemination throughout the state and the country.  The enabling environment for business in Brazil in the recent years has not been favourable, however, cofinancing of private sector has been secured to the Project.  The MTE is underway and shall capture the lessons learned, sucesses and challenges of this project and advise on any corrective measures that are necessary in order the project can better achieve its intended objectives and outcomes.  In our view, this project has all necessary conditions to be a highly successfull case of implementation next year, with minor adjustments/corrective measures being taken upon completion of the MTE. Once the remaining funds are committed after the next call for proposals is finalized, the Project will be in the position to transition to a new phase of stronger dissemination of results and focusing on training and supporting the sustainable production of charcoal strategy for the future. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Implementing Partner** | Highly Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | In our view, the implementation of the project is very satisfactory, with most activities being implemented according to chronogram, although some usual adjustments have been made. With regards to the work plan , almost 56% was concluded, which indicates a good progress towards the stated project outcomes. Taking a look on the indicators also supports that conclusion at the current stage of the project. In most cases, the results are overachieved.    Network and partnerships have been strengthened and capacity building activities also contributed to significant results.    Despite the delay on selecting the consulting company to develop the "Sustainability Strategy", the Ministry of Environment is still very confident about its implementation after the new public call to select the company . In the MMA view, the Strategy will be one of the most relevant project achievements as pointed also in the previous Project Implementation Review (PIR).    Incentives have been provided to the I&S sector to encourage use of sustainable charcoal, particularly in the context of the tender mechanism and demonstration units.    The government changes in Federal and Minas Gerais levels did not result in negative effects to the project. The currency fluctuations neither. Instead, the Federal Government is strengthening the private sector engagement.    The Ministry of Environment and the Ministry of Economy are supporting the project team to enhance the engagement of State of Minas Gerais after the recent institutional changes.    The project contributed with inputs for the 3rd Brazilian Biennial Update Report communicated to the UNFCCC on March 2019. Sustainable Charcoal for Iron and Steel production is one of the Brazilian NAMAs.    In addition to the relevant results regarding the pre-2020 actions, the project is also consolidating the great potential to contribute to the implementation of Brazil's NDC. The results achieved so far continue indicating potential to scaling-up activities in the near future. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Satisfactory | Satisfactory |
| Overall Assessment | This is the 4th PIR Report of the ‘Sustainable Iron and Steel Project’ which objective is to develop and demonstrate enhanced, clean conversion technologies for renewable, biomass-based charcoal production, supported by an effective policy framework. The project has gone through a Midterm review this year which inputs will also guide this review. There was some delay to implement this milestone, that should have been delivered by December 2018, but fortunately the draft version of MTR was delivered before the end of PIR season this year.  Project made significant progress towards achieving its development objective since last reporting period and has been successful in adopting adaptive management measures. The demonstrative projects under implementation and proposed under the tender mechanism (7 proposals from 5 companies under execution) have received in average 50% of the resources. The initial results of increase of gravimetric yields for both small and large charcoal producers range between 32 and 36 % dependent on specific technology and scale of producer (target 32%).  Related to projected GHG emission reductions, project shall exceed considerably the expected cumulative emissions. The final figures on emissions will be still audited and they are directly related to the total charcoal production expansion facilitated by the project. Therefore, it is important to consider the baseline of tons of charcoal production before project, in order to state clearly the total amount of tons of charcoal increased and consequently, the total Co2 emission reduction per year generated by the project. Notwithstanding, if the preliminary numbers consider those assumptions, yearly reductions generated by project (425 kton due to 300,315 tons/year of expanded charcoal production capacity) will surpass total direct emissions targets (direct: 432 kton in 20 years or 21,600 tons CO2eq per year). Other important element to be considered, to address inconsistencies in targeted emissions reductions (mainly indirect emissions) pointed out by MTR, is the emission factor: in the PRODOC it is 244,939 kg CO2 eq/ton of charcoal and project is using 1,415 kg CO2 eq/ton of charcoal. PRODOC shall be adjusted to more accurate numbers and assumptions and calculations shared for approval.  The big challenge of the Development Objective is related to achieving the policy and co-financing targets. Project is working towards defining a policy regulatory framework in support of renewable charcoal use in MG and the elements that will contribute to the strategic framework are being assessed (e.g., MRV, national policy on forest plantations, financial incentive studies supported under the Project etc.). However, it is not clear to which extent it will turn out as a new regulatory arrangement or law due to project efforts. The co-finance targets were heavily based on Fundo Clima and BNDES funding (USD25 million) which were affected by the shortfall generated by the economic crisis and shift of oil royalties to other sectors approved by Brazilian government. However, project has managed to leverage USD16million in private sector investment to build and improve their commercial production facilities, achieving a 5:1 rate (until now) of investment in relation to the grant resources. There are still two tender mechanisms to come that can enhance this rate and total amount of co-financing (target is USD 40 million).  Given the results achieved up to now and the remaining operational time of the project, RTA in line with project team considers development objective rating as Satisfactory. Project is on track to achieve its end-of-project targets by project closure. Indeed, adjustments proposed in the MTR might correct those targets, not because they will not be achieved but because some of the assumptions used to stablish them were not accurate (including emission factor). The project can be presented as 'good practice', with a strong communication strategy, stakeholder engagement strategy and management arrangements.  Project has also substantial progress in Outcome 1 “a policy framework has been implemented to promote the use of renewable biomass-based charcoal by the I&S sector, supported by an internationally recognized system for monitoring achieved GHG emission reductions”. The MRV system has been operational since December 2018 and tested with participation of the companies supported by the tender mechanism in the first quarter of 2019. It will be handed over to MMA by project end. Under this outcome, project is assessing the socio-environmental performance of commercial facilities of the tender mechanism participants as well as small charcoal producers.  The ongoing analysis of financial incentive schemes, together with business models consultancy and two technical and economic feasibility studies on charcoal production with kilns-furnace system, will provide the basis for the elaboration of the renewable charcoal strategy. A good conjunctural element is the approval of the National Plan for the Development of Planted Forests (Plantar Florestas) recently by the federal government, which could be a channel through which project could discuss and propose a specific policy to renewable charcoal. The design of a financial schemes for the I&S which aggregates the two ends of the charcoal production chain (wood producers and consumers) might attract the interest of international climate finance capital. Recently BNDES has been accredited as a national direct access entity in the Green Climate fund and could access resources to finance Plantar Florestas and the Renewable Charcoal strategy at very attractive conditions. The remaining resources available in the project could serve as an asset to implement the needed financial appraisals, market analysis and define the finance structure of such facility. This would demand the interest of the government (MAPA is a key actor, very empowered right now) and BNDES itself. UNDP could be a secondary entity responsible for providing technical assistance and engaging the main stakeholders of this sector.  Related to outcome 2, “ the technology and human capacity base for clean charcoal conversion in Brazil is strengthened by technical assistance and targeted training”, two demonstration units have been built and a call was recently issued for research and education institutions in Minas Gerais to build at least three more and link them to research and rural extension activities. Under this component project has undertaken a series of public outreach events (5 editions of Charcoal Forum) and training activities that were offered to 381 people.  For Outcome 3, “commercial charcoal production facilities are built under a competitive bidding mechanism to deliver objectively verifiable renewable, biomass-based charcoal and GHG emission reductions”, the main task ahead is to audit results to verify the figures of demonstration projects. Resources derived from savings associated with exchange rate differentials were reallocated under this component to support a second and third call for proposals for support small producers. This will address a failure of project design, which did not consider Small producers as the beneficiaries of the project. This second bidding might increase results on co-financing and Co2 emissions reductions.  Given the results achieved on implementation in the last year, RTA in line with UNDP Program officer considers IP rating as Satisfactory. The cumulative disbursements showed in the PIR platform do not reflect the committed resources by signed contracts that have not been payed yet (payments will be based in audited performance). Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. MTR has added two new risks for project and has recognized that risks were anticipated and managed well. The project is managed efficiently and effectively and implementation of the project can be presented as 'good practice'.  As partnerships are considered one of the main strengths of the project that will contribute to project’s sustainability. Consideration in engaging some of those partners as responsible parties to deliver needed outputs and disburse remaining resources, should be thought through. An implementing partner (in this case UNDP) may enter into a written agreement with other organizations, known as responsible parties, to provide goods and services to the project, carry out project activities and produce outputs using the project budget. Implementing partners use responsible parties to take advantage of their specialized skills, to mitigate risk and to relieve administrative burdens. Responsible parties are directly accountable to the implementing partner in accordance with the terms of their agreement or contract. There are two approaches to engage civil society organizations, including NGOs and foundations, as well as duly accredited academia and state-sponsored actors as responsible parties: Collaborative advantage (programmatic activities that are uniquely positioned in terms of their value, legitimacy and/or access to particular groups of beneficiaries or geographic areas) or Competitive selection (also used for private sector) with which organizations provide specific project inputs and/or undertake well-defined project activities. This last modality the selection can be based on: quality-based fixed budget selection, a competitive procurement or Direct contracting using the UNDP policy for justifying direct contracting. | |

# Gender

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

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

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| **Gender Analysis and Action Plan:** *not available* |
| **Please review the project's Gender Analysis and Action Plan. If the document is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis and all projects approved since 1 July 2018 are required to have a gender analysis and action plan.** |
| [GenderAnalysis\_PIMS3066\_PIMS4659\_PIMS4675\_Product01.pdf](https://undpgefpims.org/attachments/4675/213484/1727909/1742094/GenderAnalysis_PIMS3066_PIMS4659_PIMS4675_Product01.pdf)  [GenderAnalysis\_PIMS3066\_PIMS4659\_PIMS4675\_Product02.pdf](https://undpgefpims.org/attachments/4675/213484/1727909/1742094/GenderAnalysis_PIMS3066_PIMS4659_PIMS4675_Product02.pdf)  [GenderAnalysis\_PIMS3066\_PIMS4659\_PIMS4675\_Product03.pdf](https://undpgefpims.org/attachments/4675/213484/1727909/1742094/GenderAnalysis_PIMS3066_PIMS4659_PIMS4675_Product03.pdf) |

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

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| **Atlas Gender Marker Rating** |
| **GEN0:** no noticeable contribution to gender equality |

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

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| **Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.**    **Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.** |
| As expected, in 2018, a gender analysis was carried out. In the report the gender consultant registers recommendations to improve gender perspective in four projects: PIMS 3066 (Caatinga Ecosystems Conservation II - Sergipe), PIMS 4659 (Strengthening Framework for NTFP), PIMS 4675 (Brazil Charcoal) and PIMS 3280 (Mangrove Ecosystems in Brazil).    In what regards the currently analyzed project, the assessment registered that the project indicators are closely related to the demonstration of impacts on environmental sustainability and suggested to expand the view on sustainability to include indicators that also have measure changes in the social field. As a consequence, the gender consultant suggested that the project's evaluation show also encompass indicators that show the connections between sustainable practices in charcoal production and levels of empowerment in family members, such as women and young people.    General recommendations to increase gender perspective in the project were:  • Experience exchange among women's groups  • Incorporate the gender perspectives into methodological approaches  • Incorporate social analysis in the technologies  • Cary out economic analysis on family and communities  • Communication material that highlights women as protagonists in charcoal production and use in the iron and steel industry  • Transform the sustainable charcoal demonstration units in places to increase social perspectives related to charcoal chain, in a way that embody the gender perspective    Also, in the analyses of alternative charcoal production chains, concluded in June 2018, the consultant registers that the sector is comprised mainly of male works. It happens because women are considered too sensitive to deal with a manual labor in high temperatures, smoke covered environments. As registered in the consultancy, in the steel industry women account for only 7% of the labor force. The justification is also related to the fact that most industrial functions demand physical effort and are hazardous. Recommendations involved public policies to increased social inclusion of women in general so as to foster reduction of gender inequality in the charcoal production chain. Above all, the social improvements involve the adoption of kilns that allow mechanizing loading and unloading, as well as the use of IT systems to control the carbonization process, since in these instances there would be no clear excuse to exclude women in job opportunities. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| Not applicable. |

# Social and Environmental Standards

**Social and Environmental Standards (Safeguards)**

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

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

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| **If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.** |
| *(not set or not applicable)* |

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

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

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

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| **3) Have any required social and environmental assessments and/or management plans been prepared in the reporting period? For example, an updated Stakeholder Engagement Plan, Environmental and Social Impact Assessment (ESIA) or Indigenous Peoples Plan.** |
| Yes |

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| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| In currently under execution a socioenvironmental performance assessment of the companies supported by the project under the tender mechanism framework. The diagnosis and monitoring of socio-environmental indicators are led by Imaflora, one of the institutions responsible for developing the Modular Verification Program for the Origin of Charcoal (PROMOVE). A result of the Sustainable Charcoal Working Group, that encompasses productive sector, WWF, Imaflora and ILO, among others, PROMOVE not only analyzes social and environmental sustainability indicators, but also offers recommendations and solutions to improve socio and environmental performances. In this way, Imaflora was hired to carry out not only the socioenvironmental diagnosis of the companies supported by the project, but also to offer recommendations for public policies for the sector. The work of Imaflora was well received by companies: after a sustainable production workshop, led by Imaflora in November/2018, with 50 participants, companies asked for a second workshop, scheduled for August 2019. Results of Imaflora's work shall be made public by October 2019. |

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

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

# Communicating Impact

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| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| In the context of climate change mitigation, the voluntarily-agreed goals signed in Copenhagen to reduce greenhouse gas emissions to the pre-2020 period became legally binding after the Paris Agreement. As one of the signatory countries in the Paris Agreement, Brazil can reach its commitments by supporting the use sustainably produced charcoal to reduce GHG emissions in its iron and steel industry. In addition to having technology and knowledge on how to efficiently produce charcoal from renewable sources, Brazil's climate allows rapid forest growth which, along with its vast territory, is a comparative advantage to the traditional industrialized countries.    The Sustainable Iron and Steel Project emerges as a path that aims at reducing the greenhouse gas emissions from the iron and steel sector by creating public policy to support sustainability in that industry, by investing in innovation and in strengthening human capacity, and by developing a result based payment mechanism to measure and recognize emissions reductions. Essentially, the Project is developing and demonstrating enhanced, clean conversion technologies for renewable, biomass-based charcoal production, while implementing an effective, supportive policy framework.    Many institutions and companies of the iron and steel sector subsidized the Project elaboration that was coordinated bu the Brazilian Ministry of Environment (MMA) and the Ministry of Science, Technology and Innovation (MCTI), with the support of the of Development, Industry and Trade (MDIC), United Nations Development Programme (UNDP). The project received funding from the Global Environment Facility (GEF) at the end of January 2014.    The Sustainable Iron and Steel Project fosters the efficient production the renewable biomass resources for charcoal production are obtained from sustainably-grown eucalyptus plantations. The use of renewable charcoal provides an alternative development path to mitigate greenhouse gas emissions by improving resource efficiency during the charcoal conversion process and by offsetting the use of mineral cokes for pig iron production. In addition, the pig iron produced with some percentage of sustainable charcoal could reach a status of being considered green pig iron. This differential is a marketing strategy that the Project aims to strengthen.    The project has achieved a high level of private sector involvement through a tender mechanism that will pay for results in GHG emissions reductions. Civil society, academia and organizations representing or supporting private sector have been strongly involved in project implementation and even identify the project as a platform for strategic discussions.    Small producers will benefit from the development of a training and capacity building program developed in partnership with local institutions that have profound knowledge of the characteristics and needs of the small and medium producers (Federal University of Viçosa, Federal University of Lavras, Sebrae / MG, FAEMG, Senar / MG and Emater / MG).    Furthermore, the Sustainable Iron and Steel Project is aligned with the following Sustainable Development Goals (SDGs): Affordable and Clean Energy (SDG 7), Decent work and economy growth (SDG 8), Industry, Innovation and Infrastructure (SDG 9), Responsible and Consumption Production (SDG 12), and Climate Action Sectors (SDG 13). |

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

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| **Please describe knowledge activities / products as outlined in knowledge management approved at CEO Endorsement /Approval.**    **Please also include: project's website, project page on the UNDP website, blogs, photos stories (e.g. Exposure), Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source. Please upload any supporting files, including photos, videos, stories, and other documents using the 'file lirbary' button in the top right of the PIR.** |
| TRAINING MATERIALS, 2019:  • Sustainable Charcoal Production. Forno-Fornalha (Kiln-Furnace) Construction and Operation Manuals. Finished - ISBN: 978-85-7738-433-4.  • Video on how to construct and operate the Kiln-FurnaceForno-Fronalha system is finalized.  • Institutional video about the Project is finished.      NEWS RELATED TO THE PROJECT FROM MAY, 2018 TO JUNE, 2019:  1. Projeto Siderurgia Sustentável é destaque na Semana do Fazendeiro  UNDP  26/07/2018  http://www.br.undp.org/content/brazil/pt/home/presscenter/articles/2018/projeto-siderurgia-sustentavel-e-destaque-na-semana-do-fazendeir.html  Essa notícia também pode ser encontrada em:  ONU Brasil  https://nacoesunidas.org/projeto-siderurgia-sustentavel-e-apresentado-em-evento-de-produtores-rurais-em-vicosa/  Jornal Joseense  https://jornaljoseensenews.com.br/projeto-siderurgia-sustentavel-e-apresentado-em-evento-de-produtores-rurais-em-vicosa/    2. SENAR treina instrutores no Projeto Siderurgia Sustentável  Sociedade Mineira de Agricultura  13/08/2018  http://www.sma.org.br/noticias/1667    3. Vídeo de animação sobre o Projeto Siderurgia Sustentável  Boa Imagem  17/08/2018  https://boaimagem.org/pf/pnud-onu/    4. Projeto Siderurgia Sustentável Capacita Multiplicadores  MDIC (ME)  23/08/2018  http://www.mdic.gov.br/index.php/ultimas-noticias/2691-projeto-siderurgia-sustentavel-capacita-multiplicadores    5. Siderurgia Sustentável estimula uma economia de baixo carbono  21/09/2018  UNDP http://www.br.undp.org/content/brazil/pt/home/presscenter/articles/2018/siderurgia-sustentavel-estimula-uma-economia-de-baixo-carbono.html    6. Cultivo de florestas para fins industriais diminui pressão sobre matas nativas  ONU Brasil  24/09/2018  https://nacoesunidas.org/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas/  Essa notícia também pode ser encontrada em:  Bioblog  http://www.bioblog.com.br/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas/  Centro de Ciência do Sistema Terrestre  http://www.ccst.inpe.br/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas/  Nectandra  https://www.nectandra.com.br/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas/  Dourados Agora  https://www.douradosagora.com.br/noticias/meio-ambiente/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas  Revista Ecológico  http://revistaecologico.com.br/sou-ecologico/cultivo-de-florestas-diminui-pressao-sobre-matas-nativas/  Maracaju Speed  https://www.maracajuspeed.com.br/noticia/cultivo-de-florestas-para-fins-industriais-diminui-pressao-sobre-matas-nativas  Meio Ambiente News  http://www.meioambientenews.com.br/conteudo.ler.php?q%5b1%7Cconteudo.idcategoria%5d=25&id=15504  Noticiário  http://www.noticiario.com.br/noticias.asp?cod\_noticia=11159    7. Projeto Siderurgia Sustentável e Programa Carbono Zero realizam oficina de capacitação na capital mineira  27/09/2018  UNDP  http://www.br.undp.org/content/brazil/pt/home/presscenter/articles/2018/projeto-siderurgia-sustentavel-e-programa-carbono-zero-realizam-.html    8. Exposure Projeto Siderurgia Sustentável  19/10/2018  PNUD  https://pnudbrasil.exposure.co/19a49d454b80a1ec1d919a681fd00e82    9. Siderurgia Sustentável desenvolve cadeia de produção com baixa emissão de poluentes  ONU Brasil  22/10/2018  https://nacoesunidas.org/siderurgia-sustentavel-desenvolve-cadeia-de-producao-com-baixa-emissao-poluentes/  Essa notícia também pode ser encontrada em:  Ambiente Brasil  https://noticias.ambientebrasil.com.br/clipping/2018/10/23/147850-siderurgia-sustentavel-desenvolve-cadeia-de-producao-com-baixa-emissao-de-poluentes.html  Ciclo Vivo  https://ciclovivo.com.br/inovacao/negocios/siderurgia-sustentavel-baixa-emissao-poluentes/  Risco Legal Verde Ghaia  https://vgriscolegal.com.br/blog/menos-emissao-poluente-mais-sustentavel/  WSI  https://wsievents.com/imprensa/siderurgia-sustentavel/  On Jornal  http://onjornal.com/siderurgia-sustentavel-desenvolve-cadeia-de-producao-com-baixa-emissao-de-poluentes/    10. Workshop discute desempenho socioambiental e econômico no setor siderúrgico  21/11/2018  UNDP http://www.br.undp.org/content/brazil/pt/home/presscenter/articles/2018/workshop-discute-desempenho-socioambiental-e-economico-no-setor-.html  Essa notícia também pode ser encontrada em:  ONU Brasil  https://nacoesunidas.org/workshop-discute-desempenho-socioambiental-e-economico-no-setor-siderurgico/  UGT  http://ugt.org.br/index.php/post/20635-Workshop-discute-desempenho-socioambiental-e-economico-no-setor-siderurgico    11. PNUD lança programa Siderurgia Sustentável no Brasil  Bioblog  22/11/2018  http://www.bioblog.com.br/pnud-lanca-programa-siderurgia-sustentavel-no-brasil/#respond    2018! Prefeitura investe em projetos de formação para o produtor rural  27/12/2018  Prefeitura de Lamim  http://lamim.mg.gov.br/noticia-2018-prefeitura-investe-em-projetos-de-formacao-para-o-produtor-rural-403    12. Projeto Siderurgia Sustentável recebe propostas até março  Associação Brasileira de Metalurgia, Materiais e Mineração – ABM  26/02/2019  https://www.abmbrasil.com.br/por/noticia/projeto-siderurgia-sustentavel-recebe-propostas-ate-marco    13. Aberta inscrições para Programa de Capacitação em Produção e Uso Sustentável de Carvão Vegetal do Projeto Siderurgia Sustentável  UNDP  Fev/2019  https://acessoexterno.undp.org.br/SAP%20FILES/MM/2019/32921/Aviso%20de%20Convoca%C3%A7%C3%A3o.pdf    14. Energia acessível e limpa (ODS 7) Energia limpa e renovável destaca o Brasil no mundo  Dialogus Consultoria – Gestão & Sustentabilidade  19/03/2019  http://dialogusconsultoria.com.br/gestaoesustentabilidade/energia-acessivel-e-limpa-ods-7-energia-limpa-e-renovavel-destaca-o-brasil-no-mundo/    15. Projeto Siderurgia Sustentável faz capacitação de mais de 200 produtores e multiplicadores durante fórum nacional  UNDP  15/05/2019  http://www.br.undp.org/content/brazil/pt/home/presscenter/articles/2019/projeto-siderugia-sustentavel-faz-capacitacao-de-mais-de-200-pro.html  Essa notícia também pode ser encontrada em:  ONU Brasil  https://nacoesunidas.org/pnud-oferece-cursos-sobre-producao-de-carvao-vegetal-para-a-siderurgia-brasileira/    16. Agronegócio e sustentabilidade  11/06/2019  http://www.sistemafaemg.org.br/Noticia.aspx?Code=18622&Portal=2&PortalNews=2&ParentCode=73&ParentPath=None&ContentVersion=R |

# Partnerships

**Partnerships & Stakeholder Engagment**

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

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

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

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

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

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| **Does the project work with UN Volunteers?** |
| Yes |

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

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| **CEO Endorsement Request:** [PIMS 4675 Brazil\_UNDP\_Charcoal-CEO Endorsement\_Dec6.docx](https://undpgefpims.org/attachments/4675/213484/1668477/1668726/PIMS%204675%20Brazil_UNDP_Charcoal-CEO%20Endorsement_Dec6.docx) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| In what regards stakeholder engagement, the project has received constant support from the private sector, especially from the companies hired within the framework of the tender mechanism (performance-based payment), universities and sector organizations such as the Federation of Agriculture of Minas Gerais (FAEMG), the Union of Iron Industry in the State of Minas Gerais (Sindifer) and the State of Minas Gerais Association of Forest Industries (AMIF). The companies hired under the tender mechanism, for example, have expressed that the project is an opportunity for the adoption and dissemination of good production practices and more efficient use of charcoal from planted forests. For these companies, the project has also worked as a platform for dialogue and cooperation, as recorded in the consultancy performed by Imaflora on social and environmental performance.    Even though managing a wide range of partnership implies an additional effort to ensure efficient interaction, it has been proven to be an excellent practice, since the involvement of these key actors during the execution contributes to the sustainability of results after the conclusion of the project. In this scenario, we highlight the promotion of interaction and dialogue among the companies selected in the tender mechanism, as well as the training of multipliers in partnership with the two institutions in Minas Gerais with greater outreach capacity regarding charcoal producers: Emater, a government technical assistance and rural extension, and the National Service for Rural Learning (SENAR, linked to FAEMG.    According to PRODOC, two (2) annual meetings of the Project Advisory Committee (PAC) should take place. Although only one meeting was held in August 2018, member of the PAC have participated in several technical meetings, in the revision of documents, and in strategic decisions, such as those pertaining to the sustainability strategy for the iron and steel sector with the use of renewable charcoal. This effective participation has contributed to the successful implementation of the project's activities and to the achievement of its goals.    Regarding the involvement of the Minas Gerais government, it was diminished due political changes and staff turnover during the second semester 2018 and the beginning of 2019, and also because of the Brumadinho dam collapse, which required extra efforts on disaster management and reconstruction. As a consequence, only in June the project managed to reconnect with Minas Gerais government via the State Secretariat of Economic Development. Nevertheless, it is necessary to register that during this period, as a management response, the project team has been in close contact with other institutions of the state, especially Emater/MG.    Along with other partners in Minas Gerais (Federal University of Viçosa, Federal University of Lavras, Sebrae, FAEMG, Senar), Emater MG has supported project training and knowledge disseminating activities focused on small and medium charcoal producers. Independent charcoal producers have also benefited from the installation of two demonstration units within the charcoal technology test program, which is still under way. Also focusing on small and medium charcoal producers, the project has obtained approval from its PAC to launch, by July 2019, two competitive process related to clean charcoal production technology dissemination. The first call will select proposals that foster sustainable production of charcoal from planted forest by small rural producers. The second seeks to install at least three new demonstration units of kiln-furnace system in regions defined as priority by the Project (North of Minas Gerais, Vale do Jequitinhonha, Minas Gerais Central and Metropolitan of Belo Horizonte – greatest producing areas of charcoal from planted forests).    The success of the network built by the project is a result of regular face-to-face meetings, that contribute to overcome gaps, provide updated information and guidance, and accelerate decision making. In addition, regular meetings ensure more effective engagement of partners and their engagement in new joint activities (training, technical discussions, events, etc.).    Also, it is important to mention that companies supported by the tender mechanism offered about R$ 56 million (US$ 14 million, June 2019 exchange rate) in co-finance, which corresponds to almost five times the expected co-finance value in the PRODOC (which was US$ 2.9 million). This partially compensating the unavailability of Climate Fund resources for loans (US$ 25 million) and demonstrates the degree of the private sector's engagement with the project.    The ministries included in the Project Steering Committee have already offered R$ 5,699,864.42 (US$ 1.4 million, June 2019 exchange rate) in kind co-financing (MMA, ME, MCTIC) and research grants (MCTIC). |

# Annex - Ratings Definitions

**Development Objective Progress Ratings Definitions**

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

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

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

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

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

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

**Implementation Progress Ratings Definitions**

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

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

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

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

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

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