

2019

Project Implementation Review (PIR)

**Benin NAPA LDCF 2**

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# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 4979 |
| GEF ID | 5431 |
| Title | Strengthening the resilience of the energy sector in Benin to the impacts of climate change |
| Country(ies) | Benin, Benin |
| UNDP-GEF Technical Team | Energy, Infrastructure, Transport and Technology |
| Project Implementing Partner | Government |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| The project Strengthening the resilience of the energy sector in Benin to the impacts of climate change (Adaptation Project)  also called in short NAPA Energy, aims to support the Government of Benins strategy to adapt to climate change in the energy sector and to reduce the vulnerability of rural and urban communities to climate change and variability, through increasing the resilience of energy production, transport and distribution on the territory.    The project addresses the second priority intervention identified by the 2008 NAPA of Benin: Reducing populations vulnerability to climate change impacts by providing a better access to sustainable energy sources and protecting forest resources.    The first intervention concerns the adaptation capacities of the energy sector to climate change. It will strengthen these capacities in order to enable stakeholders to integrate climate risks in energy planning and to face climate risks, so that risks of economic losses due to climate change are reduced.    The goal of the second intervention is to support the development of new frameworks for energy policies and strategies that will take climate change into consideration. Climate change issues and adaptation measures should be integrated into policies and strategies both at the national scale, and in vulnerable areas identified by the NAPA.    The third intervention will take action to reduce climate vulnerability of energy supply sources in Benin. It will focus on the resilience of watersheds, of forest areas supplying wood for energy, and of electricity production and distribution facilities. It will assess the vulnerability of these areas and take protective measures, involving all stakeholders, to protect these energy sources. Moreover, it will support the development of alternative energy production sources for vulnerable communities. |

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

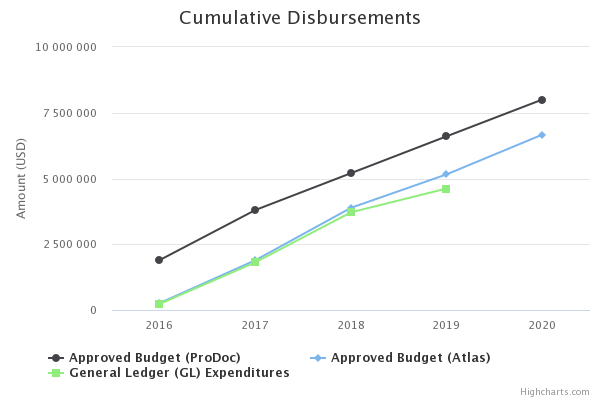
# Overall Ratings

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

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **To reduce the impacts of climate change and variability on Benin’s energy sector** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 1**  **Strengthen capacities in order to reduce risks of economic losses due to climate changes** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Gender sensitive multi-stakeholder platform installed and functional | 0 | *(not set or not applicable)* | 1 | Significant progress have been made towards reaching this indicator. The cumulative progress to date are: (i) development and validation of the mapping of actors within the energy sector; (ii) evaluation and stakeholder positioning within the platform (with gender integration) , (iii) elaboration of criteria for nominating platform members, (iv) validation of the methodology for carrying out the study of the gender-sensitive multi-actor platform implementation.    This multi-stakeholder energy sector platform will function as an integrated working group to the National Committee for Sustainable Development (CNDD) and the National Committee on Climate Change (CNCC).    The following step will enable the adoption of decrees and legal acts. Thus, the platform will be institutionalized and made operational. | Significant progress has been made toward achieving this indicator in the current PIR review period.  This progress includes:  - conducting a study on “Establishing a platform for energy sector actors that will function as an integrated working group of the CNDD and the CNCC.”  Product: “Study report available and recorded in the National Library of Benin.”  - developing criteria for platform membership  - establishing the multi-actor, gender-sensitive platform (in process). |
| Integration and implementation by stakeholders of climate resilient energy access approaches in their business activities | 0 | *(not set or not applicable)* | 1 | This indicator has been reached by providing supports to the energy sector especially for integrating climate change adaptation into: (i) national off-grid electrification policies, (ii) the revision of the Benin Electricity Code , (iii) the Framework Law on Renewable Energies in Benin , (iv) Policies and Strategy of intervention in reforestation and the reforestation of NAPA Energy .    The next step will be to support stakeholders in the appropriation and application of the resilient energy access approaches contained in these tools. | As of 30 June 2019, the indicator achieved the required target.  During this PIR reporting period (1 July 2018-30 June 2019), technical capacity-building was provided to the five (5) private companies that contributed to the installation of five (5) mini-solar plants and forty-one (41) resilient solar lights in the targeted NAPA Energy locations. Today, they can all integrate climate change resilience in the PV solar installations.  In addition, four (4) other private energy sector companies have expressed interest in these technical capacity-building sessions on integrating resilience in the design and installation of climate-resilient mini-solar PV plants. Thanks to the NAPA Energy project, they expect to improve their services in the field.  Further, as part of energy management in the transport and distribution power networks, NAPA Energy:  - supported Communauté Électrique du Bénin (CEB) in integrating resilience to climate variability in its network and electrical substation in Lokossa (southern Benin). This was operationalized with the purchase of a smart transformer, which will control the flow of electricity to stabilize power grids and handle a wider range of ambient conditions.  With this kind of support from PANA Energy, CEB is able to sell electricity to its large customers (Société Béninoise d'Energie Electrique (SBEE), industry, factories, etc.).  - supported SBEE in integrating climate variability resilience in its networks and electricity stations/substations in the city of Cotonou (southern Benin). This was operationalized with the purchase of two smart transformers, which will control the flow of electricity to stabilize power grids, reduce losses by nearly 80% and handle a wider range of ambient conditions.    With this kind of support from PANA Energy, CEB is able to sell electricity to residential customers. |
| - A training plan is developed and approved by the Steering Committee;  - Each year, at least 50 women and 50 men from in the energy sector are trained;  - Each year, at least 80% of the women and men trained apply the experience acquired in training | 0 | *(not set or not applicable)* | At least 500 managers/executives (men and women) | - Related cumulative progress in regards to the training plan are: (i) Identification of climatic risks for the energy sector, (ii) Development and the integration of the adaptation measures according to energy sector, (iii) Integration of risks and climatic parameters (iv) the methodology approval study implementation related to program training development for energy sector stakeholders,( including the multi-actor platform).    - According to the expected target, the project achieved in terms of skills building for renewable energy stakeholders, (39) women and (436) men on adaptation measures.  The training related to : (i) reforestation with preservation of indigenous species of natural community forests, and (ii) integration of multipurpose newly fast grown species    - A data collection system is set up to identify the trained women and men experiences gained during the training. | The following progress has been made toward achieving this indicator during this PIR reporting period:  - The project’s Technical Committee members developed and validated a training programme for the energy sector actors, including the multi-actor platform, that incorporates climate risks and parameters;  - 1,016 actors from the country’s energy subsectors (142 women and 874 men) received training in: (i) forestry adaptation measures intended to preserve indigenous species of natural community forests, while integrating new multipurpose fast-growing species; (ii) techniques for planting seedlings, maintaining young plantations and fill planting; (iii) the process by which the project’s Technical Committee members can include climate change considerations in development policies/strategies;  - In addition, the project intervention communities submitted ten requests (expressions of interest) for technical capacity-building support in the form of training on sustainable land management techniques. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **Integrate adaptation in enlarged frameworks at the national scale and in vulnerable areas** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| The gender-sensitive Masterplans for Supply (SDA) of fuelwood in the selected cities are developed and validated | 8 | *(not set or not applicable)* | 8 SDA revised | A total of eight (08) Masterplans for Supply (SDA) of fuelwood in the selected communities have been updated.    The progress achieved for this indicator are: (i) workshop session with  various stakeholders involved in  the Masterplans for Supply (SDA) update process (National Forest Office (DGEFC), Directorate General of the Environment and Climate (DGEC), Directorate General of Energy (DGE), Academics and Research actors at Universities, Municipalities etc.) on the need to mainstream climate change adaptation into (SDA); (ii) Out of the eight (08) planned SDA, six (06) Masterplans for Supply (SDA) with the integration of the adaptation of climate change have been updated and validated at national level.    Validation process of the remaining two (02) will take place in the next semester.  The following step will consistently certify the 08 Masterplans for Supply (SDA) of fuelwood by the Forestry Ministerial authority. | The project achieved the following between 1 July 2018-30 June 2019:  - The six (6) fuelwood SDA for the cities of Malanville, Djougou, Natitingou, Bohicon-Abomey and Lokossa were updated to include integration of and adaptation to climate change;  - The six (6) fuelwood SDA from the cities of Malanville, Djougou, Natitingou, Bohicon-Abomey and Lokossa were approved by the Technical Committee of the General Directorate of Water, Forests and Hunting (DGEFC) of the Ministry of the Living Environment and Sustainable Development (MCVDD), in accordance with Decree N° 093/MCVDD/DC/SGM/DGEFC/SA053SQD17 of 3 August 2017;  - the two remaining SDAs are being validated at this time. |
| The development plans of selected forest areas (PAF) are adopted and validated. (revised to incorporate climate risks, gender and appropriate adaptation measures) | 5 | *(not set or not applicable)* | 5 PAF revised | In total ten (10) Forest Development Plans (PAF) have been updated/revised to incorporate risks of drought, wildfires, and other climate risks as well as adaptation measures.  According to this indicator, the progress achieved are: (i) workshop session with various stakeholders involved in the Forest Development Plans (PAF) update process (National Forest Office (DGEFC), Directorate General of the Environment and Climate (DGEC), Directorate General of Energy (DGE), Academics and Research actors at Universities, Municipalities etc.) on the need to mainstream climate change adaptation into (PAF);(ii) updating and validation of (PAF) (including climate risks such as frequency increase, intensity of droughts, floods, rainfall perturbations, climate factors which can favour the increase in intensity and frequency of wild fires). | This indicator achieved the required target on 30 June 2019.  During this 2019 PIR reporting period:  - Ten (10) PAFs for the natural community forests of Détohou (Abomey), Zouzounkan (Covè et Zagnanado), Kolobi (Djidja), Té-Foungou(Djougou), Nonsinanson (Pèrèrè and N'dali), and Dahendé (Tanguiéta and Toucountouna, Fita-Agbado (Dassa-Zoumè et Savalou), Bobè (Bantè), Ouogui (Savè) and Gbédé (Ouèssè) were updated and revised to incorporate climate change adaptation and appropriate adaptation measures;  - The ten (10) PAFs were also approved by the Technical Committee of the DGEFC of the MCVDD, in accordance with Decree N° 093/MCVDD/DC/SGM/DGEFC/SA053SQD17 of 3 August 2017; and,  - Support to implement the 10 PAFs is underway through replanting and maintenance activities on 750 ha of plantations in the natural community forests of Gbédé (Ouèssè), Kolobi (Djidja), Fita (Dassa-Zoumé), Té-Foungou (Djougou) and Bobè (Banté) of Nonsinanson (N’Dali), Fita (Dassa-Zoumé) and Dahendé (Toucountouna). |
| National Plan for optimal management of supply and demand of electric power in a context of climate change including climate risks and gender-specific needs is available, leading to a decrease in power shortages due to climatic events | 0 | *(not set or not applicable)* | 1 National gender-sensitive plan | In order to reach this indicator, NAPA Energy achieved: (i) updated/revision of Benin Electricity Code , (ii) Reinforcement and rehabilitation of Benin's power grids in collaboration with other partners, (iii) Assessment of SBEE's electrical equipment protection requirements against climatic phenomena; (iv) Feasibility study for development of a National Plan for optimal management of supply and demand of electric power in a context of climate change including climate risks (temperature, river flow, evapotranspiration, rain, sunshine, cyclones, floods ) and adaptation measures. The process for this Feasibility study is ongoing. | This indicator achieved the required target on 30 June 2019.  During this PIR reporting period, at 30 June 2019:  - The National Operational Plan for the optimal management of electricity supply and demand is validated, available and registered at the National Library of Benin.  In addition:  - The off-grid electrification policy documents were developed;  - Aspects related to climate risks/adaptation to optimize management of electricity supply and demand and the specific needs of the most vulnerable social groups were incorporated into the new law laying down the Benin Electricity Code;  - The Ministry of Energy (ME) received support to prepare its strategic plan and consider climate change in the general and strategic energy policies, including the 2016-2021 Government Action Programme (PAG), the Off-Grid Electrification Policy (PDHR), the Sustainable Development Growth Programme (2018-2021 PCDD) and the National Development Plan (2018-2025);  - Support was provided to take adaptation measures into account in designing the national strategy to promote renewable energy for the large-scale electricity production connected to the power grid and small-scale production for off-grid electrification.  - Support was provided to implement the National Plan for optimal management by purchasing equipment (including lightning rods and surge arresters) to protect against and build resilience to climate variability at SBEE source substations and relay stations;  - Support was provided to implement the National Plan for optimal management by managing the operation of the five (5) resilient mini-solar photovoltaic plants to provide vulnerable populations and off-grid populations with access to clean energy; and,  - The large-scale communications campaign on the National Plan for optimized management is underway. |
| The SIEP on domestic fuels and the SIEF updated and including climate risks, gender-sensitive issues and strategic options are functional. | 1 SIEF / 1 SIEP | *(not set or not applicable)* | 1 SIEF updated, gender sensitive / 1 SIEP updated, gender sensitive | The progress achieved are: (i) workshop session organization with various stakeholders involvement at both SIEP and SIEF : Information System for Permanent Evaluation (SIEP) on domestic fuels and the Ecological and Forest Information System (SIEF) including (National Forest Office (DGEFC), Directorate General of the Environment and Climate (DGEC), Directorate General of Energy (DGE), Academics and Research actors at Universities, Municipalities etc.) on the need to mainstream climate change adaptation into SIEP and SIEF; (ii) workshop session for synergy and integration of the SIEP, the SIEF in the new National Energy Information System of Benin (SINEB), (iii) Analysis of the reference situation of the SIEP, the SIEF at the beginning of project; (iv) Assessment of the vulnerability of natural community forests, intervention areas of NAPA Energy; (v) Validation of the methodology related to study update, and review of SIEP and SIEF for update of climate risks integration | This SIEF-related indicator achieved the required target on 30 June 2019.  At the PIR termination date of 30 June 2019, the following progress had been made toward achieving this indicator:  - The SIEF, incorporating climate change considerations, is revised and available.  However, the following SIEF-related progress also includes:  - The revision of the SIEP, incorporating climate change considerations, is underway.  - At 30 June 2019, NAPA Energy contributed to the PAPBIOSE study (project to support the production of solid biofuels and electricity from agricultural, forest and industrial residues). |
| PAF of the relevant areas supplying the cities and urban centers of Benin in biomass are revised to incorporate risks of droughts, wildfires, and other climate risks, as well as adaptation measures and gender-specific needs. | 1 PAF  10 simple management plans non gender-sensitive | *(not set or not applicable)* | 1 PAF  10 simple management plans | The project does not intervene in the natural forests community equipped of simple management plans as per the government decree N ° 093 / MCVDD / DC / SGM / DGEFC / SA053SQD17 of the 03 August 2017 on Procedures and Modalities of elaboration and approval Management Plans and Forest Management Tools in the Republic of Benin.  This indicator appears to be a repetition of the revised Forest Development Plans (PAF) indicator. | This indicator achieved the required target on 30 June 2019.  During the PIR 2019 reporting period, out of all ten (10) PAFs updated above, in terms of implementation, there are more than 10 simple management plans for these natural community forests relative to the respective management units. |
| Riverbanks likely to harbor selected hydroelectric facilities are effectively protected against erosion through reforestation (involving men, women and youth) with multipurpose species tolerant of drought and flooding. | 0 ha of riverbanks converted | *(not set or not applicable)* | - At least 20 hectares of riverbanks reforested  - Proportion/ role of women, men and youth involved in the reforestation process | 20 ha has been planned; 09 ha have been achieved in the first year.  The progress achieved related to this indicator are: (i) Assessment of the reference situation of the state of degradation of the banks of the basins; (ii) Characteristic comprehensive diagnosis of the need for erosion protection measures combined with droughts and the violence of rainfall, (iii) Organization of IEC workshop for riparian populations, actors and managers of hydroelectric sites Yéripao (existing); (iv) Six (06) ha of effective reforestation with fast-growing species Bambusa vulgaris and Gmelina arborea with (v) 03 ha of bank reforestation with the species Artocarpus altilis; (vi) Operationalization in progress of a Memorandum of Understanding between NAPA Energy and INRAB for the development of reforestation actions on the banks of the Ouémé, Sota, Pendjari, Zou, Mono river basins (suitable for harboring potential hydro-electric installations) of Yéripao (existing), Sosso and Kota waterfalls, Gbassè, Koutakroukrou, Wabou and Kouporiokou | The following progress has been made toward achieving this indicator during this PIR reporting period (1 July 2018-30 June 2019):  - Reframing of implementation of the Memorandum of Understanding between NAPA Energy and INRAB regarding “the development and implementation of the riverbank reforestation plan to prevent erosion in the NAPA Energy intervention areas” and “identification of replanting sites along the riverbanks and waterways suitable for siting hydroelectric installations and reforestation actions in Ouèssè and Covè communes;”  - - development (underway) of a plan to reforest the shores of the Ouémé, Sota, Pendjari, Zou, Mono river basins suitable for siting potential hydraulic installations;  - development of a summary memorandum on “NAPA Energy actions to be taken to improve climate resilience of the Ouémé, Niger (Sota) and Volta (Pendjari) river basins where the Yéripao electrical installations (existing) are located, Sosso and Kota waterfalls, Gbassè, Koutakroukrou, Wabou and Kouporiokou, with implementation of river ecosystem restoration and preservation activities." |
| Community infrastructures built, by type (reforestation, dikes, gabions, riprap, etc.) | 0 | *(not set or not applicable)* | At least 100 infrastructures/works | Preparatory activities for infrastructure construction have been deferred pending the collection of more meaningful data. This would allow to better appreciate the technical characteristics of these infrastructures. | The following progress has been made toward achieving this indicator during this PIR reporting period:  - Development of a “Memo on building low-cost community infrastructure to protect the riverbanks or sites suitable for hydroelectric installations (Ouémé, Zou, Sota, Mono and Niger) against climate variability and change, including erosion;”  - Development of ToRs and transmission to the National Project Directorate of a proposal to hire an engineering firm/office/consultants to conduct the feasibility study on building low-cost community infrastructure to protect the riverbanks or hydroelectric sites (Ouémé, Zou, Sota, Mono and Niger) against erosion.  The low-cost community infrastructure completed as at 30 July 2019 includes:  - Seven (7) community parks for firewood production were created on 750 ha in the natural community forest sites of Gbédé (Ouèssè), Kolobi (Djidja), Fita (Dassa-Zoumè), Té-Foungou (Djougou) and Bobè (Banté), Té-Foungou (Djougou), Dahindé (Toucountouna) and N’Dali (Nonsinanson);  - Five (5) reforestation sites were created ((Kouporiokou waterfall (Makou), Wabou waterfall (Kouarfa) Gbédé (Ouèssè) Bobè (Bantè) and Fita (Dassa-Zoumè));  - Five (5) resilient mini-solar photovoltaic plants were installed in Benin’s vulnerable off-grid locations (Kolobi (Djidja), Gbédé (Ouèssè), Fita (Dassa-Zoumé), Kouporikou and Wabou (Toucoutouna), and Kokohou-Té-Foungou (Djougou)); and,  - Forty-one (41) resilient solar lights were installed to electrify the vulnerable off-grid communities of Gbédé (Ouèssè), Kolobi (Djidja), Fita (Dassa-Zoumé), Kokohou, (Djougou) et Dahindé (Toucountouna). |
| Increase in the amount of people mastering good practices of sustainable land management, both men and women | 0 | *(not set or not applicable)* | 1 training program involving each year 20% women, 30% men and 30% youth trained on good practices for sustainable land management integrating climate risks | Progress achieved for this indicator are: (i) good practices for sustainable land management mapping ; (ii) Ongoing process for the development of a training program on good sustainable land management practices integrating climate risks; (iii) Approval of a Memorandum of Understanding to implement the training program between NAPA Energy target group and the National Institute of Agricultural Research of Benin (INRAB). | At 30 June 2019, the following progress has been made toward achieving this indicator:  - Operationalization of a Memorandum of Understanding between NAPA Energy and INRAB to develop a training programme on best practices in sustainable land management;  - Evaluation of technical capacity-building needs regarding best practices in sustainable land management integrating climate risks facing the communities neighbouring the NAPA Energy intervention sites, using a SWOT analysis; and,  - Development (underway) of an operational and participatory training programme on sustainable land management best practices integrating climate risks.  A total of 8,411 local workers were employed (6,328 men and 2,083 women (25%)).  These workers received capacity building every year on sustainable land management best practices integrating climate risks. |
| Climate resilient and environmentally sound remunerative activities (beekeeping, small livestock farming, and marketing of improved cooking stoves), involving men, women and youth, and ecologically rational exist. | 0 | *(not set or not applicable)* | At least 200 resilient remunerative activities involving each year at least 50% women, 30% youth and 20% men are supported | Progress achieved for this indicator are : (i) mapping of alternative, climate-resilient income generating activities and benefit (IGAs/B) such as beekeeping, horticulture, small livestock, production and maintenance of improved stoves and pressure cookers (ii) ongoing process of operationalizing the (IGAs/B) in NAPA Energy areas; (iii) development and approval of strategy to promote solar energy services (telephones and portative lamps chargers) , and (iv) construction and commissioning of five (05) solar kiosks providing energy (recharging, freezing of drinks and medicines for children and women) services based on a Payback: fee. | The following progress has been made toward achieving this indicator during this PIR reporting period:  - Monitoring and evaluation (underway) of revenue from the commissioning of five (5) mini-solar PV plants providing energy services, based on a payback fee;  Annual support provided to 2,152 households (7,147 and 7,458 men), to date, to develop climate change-resilient IGAs.  - As part of the agriculture IGAs, one hundred forty (140) potential apiculture beneficiaries were identified in relation to the development of resilient and sustainable income/benefits-generating activities (IGA/B) using forest resources to benefit the communities of Gbédé (Ouèssè), Kolobi (Djidja), Bobè (Banté), Fita (Dassa-Zoumé), Té-Foungou (Djougou), Dahendé (Toucountouna) and N’Dali (Nonsinanson.  A contract is being negotiated with an approved training centre to provide training on, installation and provision of agricultural equipment and supplies and to monitor the one hundred forty (140) potential apiculture beneficiaries. |
| Existing community parks of firewood resilient to climate change in areas identified as the most vulnerable | 0 | *(not set or not applicable)* | 10 community parks (adding to 600,000 ha) in the concerned communal forests, involving men, women and youth, are set up | Progress achieved for this indicator are : (i) mapping of alternative, climate-resilient income generating activities and benefit (IGAs/B) such as beekeeping, horticulture, small livestock, production and maintenance of improved stoves and pressure cookers (ii) ongoing process of operationalizing the (IGAs/B) in NAPA Energy areas; (iii) development and approval of strategy to promote solar energy services (telephones and portative lamps chargers) , and (iv) construction and commissioning of five (05) solar kiosks providing energy (recharging, freezing of drinks and medicines for children and women) services based on a Payback: fee. | At 30 June 2019, the following progress has been made toward achieving this indicator:  - The reforestation methodology for the 2018 campaign was updated, with the involvement of the private sector and including the innovative practice of service rendered before payment is made;  - A memorandum of understanding between the project and the DGEFC was operationalized on support/advice and supervision of the reforestation chain.  A total of 750 ha of natural community forests have been reforested.  - Maintenance and fill planting on 500 ha of natural community forest plantation sites in Gbédé (Ouèssè), Kolobi (Djidja), Fita (Dassa-Zoumé), Té-Foungou (Djougou) and Bobè (Banté) as part of the 2017 campaign;  - As part of the 2018 campaign, three (3) community parks were established to produce firewood using with multipurpose fast-growing species on two hundred and fifty (250) ha at the Fita (Dassa-Zoumé) Dahindé (Toucountouna) and N’Dali (Nonsinanson) sites;  - Seven (7) community parks were established at the end of this PIR reporting period to produce firewood using multipurpose fast-growing species on seven hundred fifty (750) ha in the Benin’s natural community forest plantation sites; and,  - The Laboratory of Biomathematics and Forest Estimations (LABEF) at the University of Abomey-Calavi is evaluating the biomass, carbon stocks and the impact on the land of young plantations of Acacia auriculiformis A. Cunn ex Benth [Leguminosae family] and Gmelina arborea Linn. [Verbenaceae family] at the sites of Kolobi (Djidja), Fita-Agbado (Dassa-Zoumé); Gbédé (Ouessè); Bobè (Bantè) and Té-Foungou (Djougou).    Note: The target of 600,000 ha to be achieved in line with the ProDoc is an obvious error. The maximum possible area that can be reforested by the end of the project is 600-1,000 ha. Clearly, three zeros – 000 – were added by mistake. |
| Bushfire management protocols developed and signed | 0 | *(not set or not applicable)* | At least 4 protocols signed | The progress achieved are : (i) repertoire of laws and regulations in force for the management of wildfires in Benin; (ii) Inventory of all actors involved in wildland fire management in Benin; and (iii) Ongoing implementation of the study on "Protection of wood-energy supply areas of natural community forests against wildfires caused or accentuated by climate change " | At 30 June 2019, the following progress has been made:  - The study on protecting wood-energy supply areas of natural community forests against wildfires caused or accentuated by climate change in Nonsinanson (N’Dali-Pèrèrè-Parakou), Té-Foungou (Djougou), Dahendé (Toucountouna), Fita-Agbado (Dassa-Zoumè, Savalou), Zouzounkan (Covè and Zagnanado) Bohicon, Abomey (Détohou) for Porto-Novo and Cotonou is validated, available and registered in the National Library of Benin; and,  - The wildfire management plans are being developed. |
| Demonstration sessions for resilient bushfire fight methods around fuelwood supply forest areas carried out | 0 | *(not set or not applicable)* | 40 sessions | The progress achieved are : (i) the development of a training tool pack incorporating the increased frequency and intensity of wildfires caused or exacerbated by climate change, and (ii) development of capacity-building program for stakeholders (men / women) in the use of tools, techniques and measures for the protection and control of wood-energy supply areas and derivatives against wildfires | Progress made during this PIR reporting period is as follows:  - Training tool pack incorporating the increased frequency and intensity of wildfires caused or exacerbated by climate change is validated and available;  - Capacity-building program for stakeholders (men/women) in using tools, techniques and measures to protect and control wood-energy supply areas and derivatives against wildfires is validated and available. |
| Number of existing remunerative activities alternative to forest resources use (beekeeping, horticulture, small livestock breeding, production and maintenance of improved stoves, pressure cookers etc.) | 0 | *(not set or not applicable)* | At least 200 activities generating income, involving each year at least 50% women and girls and 50% men and boys achieving activities alternative to forest resources exploitation | Progress achieved for this indicator are: (i) inventory and mapping of alternative, climate-resilient income generating activities and benefit (IGAs/B) such as beekeeping, horticulture, small livestock, production and maintenance of improved stoves and pressure cookers;  (ii) ongoing process of operationalizing the (IGAs/B) in NAPA Energy areas; (iii) development and approval of strategy to promote solar energy services (telephones and portative lamps charging) , and (iv) construction and commissioning of five (05) solar kiosks providing energy (recharging, freezing of drinks and medicines for children and women) services based on a Payback fee. | At 30 June 2019, the following progress was made toward achieving this indicator:  - Monitoring and evaluation is underway of revenue from the commissioning of five (5) mini-solar PV plants providing energy services based on a payback fee.  To date, 2,152 households (7,147 and 7,458 men) receive support every year to develop climate change-resilient IGAs.  - One hundred forty (140) potential apiculture beneficiaries were identified as part of the development of resilient and sustainable income-/benefits-generating activities (IGA/B) using forest resources to benefit the communities of Gbédé (Ouèssè), Kolobi (Djidja), Bobè (Banté), Fita (Dassa-Zoumé), Té-Foungou (Djougou), Dahendé (Toucountouna) and N’Dali (Nonsinanson); and,  - A contract is being negotiated with an approved training centre to train, install and provide agricultural equipment and supplies and monitor the one hundred forty (140) potential apiculture beneficiaries. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 3**  **Reduce vulnerability in the Benin energy sector** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Thermal power plants protective measures are implemented, lowering the risk of breakdowns of the installed capacity during extreme climatic events. | 0 | *(not set or not applicable)* | At least 2 measures for each station | The progress achieved are : (i) assessment , baseline situation and the state of vulnerability of the Cotonou (Akpakpa), Porto-Novo, Kandi and Natitingou thermal power plants; (ii) technical characterization of the need for protection measures for the resilience to the risks and extreme climatic events of the environment of thermal power plants, electrical stations, substations and substations; (iii) ongoing of feasibility study on the vulnerability to climate change of thermal power plants of the Cotonou (Akpakpa), Abomey-Calavi, Porto-Novo, Kandi, and Natitingou, in view of the increase in intensity and frequency of droughts and other climatic hazards and natural disasters in Benin, (iv) the implementation of five (05) aide-memoires for the capacity building of managers of the thermal power stations and sub-stations such as SBEE and CEB in the knowledge of the risks and climatic events to which the thermal power plants concerned are exposed, (v) the identification of resilient equipment according to norms and standards for the protection of the thermal power plants of Cotonou, (Akpakpa), Abomey-Calavi, Porto- Novo, Kandi, Natitingou, facing risks and climatic events; (vi) launching the process of acquiring lightning rods, surge arresters, servers, and other plant protection accessories against risks and climatic events. | This indicator achieved the required target on 30 June 2019.  Achieving this indicator involved:  - Conducting three (3) strategic studies on developing adaptation measures for the energy sector in Benin. This involved:  (i) an evaluation of the climate change vulnerability of thermal power plants in Cotonou (Akpakpa), Abomey-Calavi, Porto-Novo, Kandi, and Natitingou, in view of the increasing intensity and frequency of droughts and other climatic hazards and natural disasters in Benin (report validated, available and registered in the National Library of Benin);  (ii) a technical-financial evaluation of the protection measures for the thermal power plants in Porto Novo, Cotonou (Akpakpa), Abomey-Calavi, Kandi et Natitingou in view of the increasing intensity and frequency of droughts and other climatic hazards and natural disasters, together with the communication and information plan for protecting power plants (report validated, available and registered in the National Library of Benin).  (iii) preparing an energy sector vulnerability and adaptation report (validated, available and recorded in the National Library of Benin).    In addition, during this 2019 PIR reporting period:  - Thirteen (13) regional branches, stations, source substations and substations of the CEB and the SBEE, including:  - Thermal/hydroelectric power plants (Porto-Novo, Parakou, Natitingou, Yéripao).  - Source substations (HT 1 Gbégamey, Akpakpa, Sème, Dassa-Zoumé, Paouignan) and,  - Distribution substations (Cotonou (Vêdoko; C181; Saint Michel, Cadjehoun, Sainte Rita), Maria Gléta (Calavi), Djougou and Tanzoun) adopted adaptation measures to protect against (i) damage and disruption to the energy infrastructure resulting from high temperatures (ii) power plants at significant flood risk.  - (iii) substations at significant flood risk,  - (iv) extreme droughts affecting the hydroelectric potential of the main basins,  - (v) existing electricity infrastructure that is becoming obsolete and must be replaced,  - (vi) energy losses caused by rising heat, sea spray, erosion, etc.  These latter national studies addressed a critical need of the actors in Benin’s energy sector. They were used to develop specific knowledge necessary to ensure that electricity supply and demand plans integrating climate risk are successful.  In addition, during this 2019 PIR reporting period:  - Twenty-five (25) lightning rods and 50 surge arresters were purchased to protect against droughts of increasing frequency and intensity and other climate risks and natural disasters facing the thermal power plants of Cotonou (Akpakpa), Porto-Novo, Kandi and Natitingou, as well as the regional antennae, electrical stations, source substations, distribution substations of SBEE on a national scale. This equipment is intended to reduce the climate vulnerability of Benin’s electricity production sources. |
| Protective measures for the distribution network implemented. | 0 | *(not set or not applicable)* | At least 2 measures by area exposed to a risk within the network | The progress achieved are : (i) assessment , baseline situation and the state of vulnerability of the Cotonou (Akpakpa), Porto-Novo, Kandi and Natitingou thermal power plants; (ii) technical characterization of the need for protection measures for the resilience to the risks and extreme climatic events of the environment of thermal power plants, electrical stations, substations and substations; (iii) ongoing of feasibility study on the vulnerability to climate change of thermal power plants of the Cotonou (Akpakpa), Abomey-Calavi, Porto-Novo, Kandi, and Natitingou, in view of the increase in intensity and frequency of droughts and other climatic hazards and natural disasters in Benin, (iv) the implementation of five (05) aide-memoires for the capacity building of managers of the thermal power stations and sub-stations such as SBEE and CEB in the knowledge of the risks and climatic events to which the thermal power plants concerned are exposed, (v) the identification of resilient equipment according to norms and standards for the protection of the thermal power plants of Cotonou, (Akpakpa), Abomey-Calavi, Porto- Novo, Kandi, Natitingou, facing risks and climatic events; (vi) launching the process of acquiring lightning rods, surge arresters, servers, and other plant protection accessories against risks and climatic events.  The progress made are : (i) the assessment the baseline situation and the state of vulnerability of the distribution network (cables), against strong winds and increase rising of temperatures; (ii) the assessment of technological and strategic solutions for the protection of the electricity transmission and distribution network in Benin; (iii) the ongoing implementation of a study on the vulnerability of transport and distribution grids accompanied by strategic and technical solutions; (iv) the realization of two (02) aide-memoires / technical documents for the reinforcement of the capacities of the executives in charge of the management of the infrastructure of production, transport and distribution of power in Benin (v) Workshop of validation of the technical specifications strategic and technical solutions to be put in place (03 smart transformers to allow better consumer and utility management of energy, to improve reliability, power quality, efficiency of energy which control the flow of electricity to stabilize existing, aging power grids and also reduce losses and handle a wider range of ambient conditions. (vi ) procurement of smart transformers that would improve reliability, power quality, efficiency of energy which control the flow of electricity to stabilize existing, aging power grids and also reduce losses and handle a wider range of ambient conditions | This indicator achieved the required target on 30 June 2019.  Achieving this indicator involved:  - Conducting a study of the vulnerability of the transport and distribution grids, together with strategic and technical solutions.  The report has been validated and is available and recorded in the National Library of Benin.  - Developing a technical memo on adaptation measures to strengthen resilience and protect the electricity transport networks.  In addition, during this 2019 PIR reporting period:  NAPA Energy carried out innovative adaptation measures making it possible to protect the electricity transport and distribution networks.  This involved:  - The purchase and provisional acceptance of two (2) smart transformers and their accessories. These adaptation measures will build resilience to climate variability and change affecting Benin’s national electricity transport and production infrastructure. The “Littoral 1” and “Littoral 2” stations in Cotonou will house these smart transformers, helping SBEE protect against climate and environmental risks;  - The purchase (underway) of one (1) smart transformer and its accessories for CEB;  - Assistance to the Government of Benin to install a mini-extension of the electricity distribution network to Porto-Novo (Avrankou).  This mini-extension allows off-grid populations to obtain access to conventional electricity.  - Supporting SBEE and CEB actors in including climate change-related considerations in their energy strategy documents, specifically:  - Taking climate change resilience measures for the electricity networks into account in Benin’s new Electricity Code (code currently being validated by the Benin National Assembly);  - Identifying the climate parameters to consider to facilitate the diagnosis of climate events on the electricity transport network; and,  - Supporting the actors to develop a mastery of the technique of integrating climate variability and change in the National Renewable Energy Development Policy (PONADER).  Specifically, this refers to integrating climate variability and change in aspects of renewable energy production and the connection to or feeding into the national electricity grid. |
| Existing feasibility study (for each locality) | 0 | *(not set or not applicable)* | 1 study for a vulnerable locality | The progress achieved are: (i) the technical feasibility study for the development of off-grid electrification (Doc\_PDEHR), (ii) elaboration of aide-memoire on the development of solar PV resilient suitable for local authorities of the PANA Energy (doc memos); (iii) On-going feasibility study for the development of the renewable energy sector (eg installation of networks of small solar panels in the villages, producing energy for cooking and lighting). | This indicator achieved the required target on 20 June 2019.  The feasibility study for the development of the renewable energy subsector (for example, installation of networks of small solar panels in the villages) was validated and is available and registered in the Benin National Library.  NAPA Energy conducted a feasibility study of the development of the renewable energy sector, supporting the Government of Benin’s strategy. This study addressed several needs of Benin’s energy sector, including:  - Evaluation of off-grid households that obtained basic access to renewable energy;  - Constraints facing the main private stakeholders on developing of a sustainable supply for households, with affordable, high-quality solar energy solutions;  - Feasibility of mobilizing carbon funds to set up renewable energy sources; and,  - Relevance of the appropriate frameworks and policies to facilitate the penetration of hydraulic, solar and biomass-based technology transfer.  The results of this study address:  - Solar photovoltaic installations in villages that are not served by the national electricity grid. These installations are intended to offer several energy services (lighting, electricity for various uses, freezing drinks medicines, and agro-food products, etc.);  - Promotion of micro-hydroelectricity as a source of renewable energy producing carbon-free electricity for electrification, lighting and cooking;  - Promotion of sustainable biomass-based biofuels with energy-efficient, ecologically-sound installations; small solar panels + pressure cookers for cooking and clean, non-polluting lighting; and,  - Promotion of biomass-electricity, with the development of clean energy technologies intended for several clean, affordable and sustainable energy services: a) cooking; b) heating; c) heating (to conserve agro-food and forestry products); d) drying; e) lighting; f) small-scale freezing; g) cooling.  This study led to the introduction of a major innovation in the solar photovoltaic sector. It involves low-cost storage solutions as a specific solar photovoltaic adaptation measure. In the past, solar photovoltaic installations were affected by climate variability, including lightning, floods and rising temperatures, which halted the provision of energy services and plunged the beneficiary populations into darkness. NAPA Energy introduced resilience in solar photovoltaics for the first time in Benin. Thanks to this innovation, solar photovoltaic installations continue to provide energy services, even when climate events occur. |
| Existing training plan and awareness campaign | 0 | *(not set or not applicable)* | 1 training program  1 awareness campaign | The project contributed to the design implementation and construction of five (05) solar mini-solar plants resilient to the effects of climate change, constituting low-cost storage solutions, in five (05) vulnerable off-grid locations in Benin which are Kolobi (Djidja), Gbede (Ouessa), Fita (Dassa-Zoumé), Kouporikou and Wabou (Toukoutouna), Kokohou-Téfoungou (Djougou).  Up to now, a program dedicated to communication and awareness of rural populations is in the formulation process.  It takes into account the maintenance (preventive and curative) of solar installations,the management of revenues from solar-based energy services as well as the training of populations.  Also, it takes into account other actors within the energy sector on improving techniques (solar energy), individual and collective awareness to reduce the vulnerability of the energy sector to the consequences of climate change.  In the end, renewable energies developed in these five (05) off-grid locations are becoming increasingly attractive financially especially if low-cost storage solutions are found. | This indicator achieved the required target on 30 June 2019.  During this 2019 PIR reporting period:  - The communication and individual and collective awareness-raising programme among rural populations on the benefits of organizing by groups of renewable energy users (including resilient solar photovoltaic) and also taking into account the preventive and curative maintenance of the solar installations, and the management of income from solar-based energy services, as well as training for the populations and other actors in the energy sector on improving techniques (solar energy) to reduce the energy sector’s vulnerability to the impacts of climate change, became available; and,  - Training and support were provided for academic research centres on training in climate change-resilient solar photovoltaic energy.  This training supports the actors and managers of the solar systems installed by NAPA Energy in five of Benin’s vulnerable off-grid locations (Kolobi (Djidja), Gbédé (Ouèssè), Fita (Dassa-Zoumé), Kouporikou and Wabou (Toucoutouna), and Kokohou-Té-Foungou (Djougou)),  The NAPA Energy project also developed and conducted training and information sessions for energy actors and the populations; The topics of the communication, training and information programmes include:  (i) The multiple kinds of grants to provide adequate funding for renewable energy;  (ii) Innovative funding mechanisms to reduce the cost for projects of a less affordable scale/size; and,  (iii) Off-grid renewable energy, including solar photovoltaic, with innovations; specifically, low-cost storage solutions that operate on a low-carbon basis to support the energy needs of populations in informal settlements and poor rural areas.  This communication, training and information programme seeks to help the actors and populations understand, individually and collectively, the advantages of renewable energy solutions, such as resilient solar photovoltaic/low-cost storage solutions.  Given the national character of these programmes, academic research centres and university and professional training provided support and training. These programmes addressed a range of aspects.  - One focused on individual and collective awareness-raising among the rural population regarding the benefits of organizing by renewable energy user groups (including resilient solar photovoltaic), also taking into account the preventive and curative maintenance of solar installations, and the management of income from solar-based energy services; as well as training for the populations and other energy sector actors on improving the techniques (solar energy) to reduce the sector’s vulnerability to climate change impacts;  - Another aspect focused on low-cost and low-carbon storage solutions to support the energy needs of communities in informal settlements and poor rural areas.  The training programme documents are available. |
| Technical capacity building program to make improved stoves and pressure cookers, integrating women’s specificities | 0 | *(not set or not applicable)* | 1 capacity building program | The progress achieved are : (i) mapping of Benin's sources of wood-energy supply; (ii) mapping of modern energy technologies for cooking, (iii) technical documents (memos, fact sheets, notes, etc.) on types of improved stoves, pressure ovens and other stoves that take into account the socio economic, cultural and environmental benefits of women and other segments of Benin's urban and rural communities; (iv) the organization of a national training workshop and the selection of some prototypes of improved stoves suitable for the intervention areas of NAPA Energy ; (v) Acquisition of 100 prototypes of improved stoves, pressure cookers as clean cooking system for the organization of demonstration sessions, appropriation and collection of data and information for a generalization of the use of these clean energy equipment coupled with a micro-finance system for the benefit bas on payback of potential manufacturers. | The following progress was made in achieving the scheduled target during this PIR 2019 reporting period: Four (4) experimental prototypes of clean (improved) stoves, ovens and pressure cookers adapted to local customs and powered with available biomass were developed with local manufacturers and specialized companies.  This involves:  - clean (improved) cookstoves – single cooker using natural air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from forests;  - clean (improved) stoves – single cooker using double air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from forests;  - pressure cookers – single cooker using natural air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from forests;  - pressure cookers – single cooker using double air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from forests; and,  - development of a programme to build capacities in terms of clean (improved) stoves, pressure cookers and other ovens that take into account the socioeconomic, cultural and environmental concerns of women and other segments of Benin’s urban and rural communities. |
| Improved stoves and pressure cookers distributed in the most vulnerable rural communities of the selected areas. | 0 | *(not set or not applicable)* | At least 10.000 improved stoves  At least 1.000 pressure cookers | One hundred (100) prototypes of improved stoves, pressure cookers as clean cooking system for the organization of demonstration sessions, appropriation and collection of data and information are at the acquisition stage.  As a result of this, community artisans will be selected for the large scale manufacture and distribution of these types of improved stoves and pressure cookers. | During this PIR reporting period, the NAPA Energy project developed several technical documents and memos for actors in the energy sector on reducing household demand for fuelwood and restoring the areas’ ecological balance, while strengthening their climate resilience.  The technical documents and memos cover:  - an introduction to the science and technical aspects of clean (improved) stoves, ovens and pressure cookers;  - the benchmark for clean (improved) stoves, ovens and pressure cookers in sub-Saharan Africa and the world;  - an analysis of the advantages of clean (improved) stoves, ovens and pressure cookers over traditional fireplaces;  - NAPA Energy’s operational strategy to develop sustainable, modern household energy equipment (clean/improved stoves, ovens, pressure cookers, etc.); and,  - Developing the criteria for selecting local artisans to manufacture and distribute, on a large scale, these types of clean (improved) stoves and pressure cookers. |
| Improved carbonization technologies spread in charcoal production communities, integrating gender needs and specificities. | 0 | *(not set or not applicable)* | At least 3 technologies    At least 500 operators (50% men / 50% women), adult and youth, trained | Progress consisted in : (i) organizing a national capacity building session for stakeholders on the difference between traditional carbonization and improved carbonization technologies following a recommendation from the NAPA Energy launch workshop ; (ii) charting practices in Benin and around the world; (iii) the ongoing process of recruiting contractors for the construction of an improved carbonized carbon wheel prototype (eg technologies will be based on rotor kilns and improved casamance kilns) to be exploited by vulnerable communities in one of the charcoal production areas in the communes intervention of NAPA Energy. | This indicator is not applicable for this PIR 2019 reporting period. |
| Number of improved kilns built and functioning among charcoal production communities | 0 | *(not set or not applicable)* | 100 kilns | The project as part of the progress achieved has not yet produced any improved kilns | During this PIR reporting period, the NAPA Energy project developed technical documents and memos for actors in the energy sector on:  - promoting improved carbonization practices in charcoal-producing communities in the NAPA Energy intervention sites;  - key steps in building an improved charcoal kiln prototype in certain NAPA Energy intervention communes;  - developing the criteria for selecting local artisans to manufacture and distribute these types of clean (improved) stoves and pressure cookers on a large scale; and,  - Taking into account the standards and specificities in the stages of building clean (improved) charcoal kilns. |
| FSM operationalized with a policy framework and an investment manual with fiduciary principles, ESS and risk coverage criteria | 0 | *(not set or not applicable)* | 1 | The target has not been reached. But it appeared in the implementation of this activity that some preliminary studies / documents were missing from the renewable energy sector in Benin. These are: the appropriate national and regulatory policy framework, (ii) the clear institutional anchoring to house this mechanism, (iii) the clear approach to assessing losses due to variability and climate change when they occur, (iv) the key of distribution of the charges between the Government, the MSF and other institutional and financial actors involved, (v) the vision of prospection in the more or less long term of perpetuation of this mechanism.  The establishment of the MSF mechanism, planned in synergy with Biomass Electricity, will enable the expected results to be achieved during the next financial year. | The following was accomplished during this PIR 2019 reporting period:  - The biomass electricity mitigation project has made significant progress in the institutional aspects of establishing its financial support mechanism (MSF). In synergy with the biomass electricity project, NAPA Energy will align with that process, while relying on the principles of climate change adaptation in the energy sector.  To that end, the NAPA Energy project developed TORs to establish and operationalize the MSF.  The MSF that NAPA Energy will establish is dedicated to supporting private investment in adaptation measures to increase energy sector resilience to climate change.  When the process has been completed at the biomass electricity mitigation project level, the NAPA Energy Project will capitalize on best practices and lessons learned for the biomass electricity mitigation project.  Pending completion, major analyses and reflection adapted to the national requirements in the energy sector were carried out. |
| MOU drafted, finalised, signed and enforced with Central Bank, paving the way for a financial climate protection mechanism in the energy sector | 0 | *(not set or not applicable)* | 1 | The current PIR submission is not appropriate to inform this indicator. | This indicator is not applicable for this PIR 2019 reporting period. |
| Incentives to be provided by Government to project developers/Independent Power Producers (IPPs) approved and operationalised with climate risks reduction coverage mechanisms (eg weather risk insurance-related solutions such as LPC and LPP). | 0 | *(not set or not applicable)* | 1 | The current period of the RIP is not appropriate to inform this indicator. | This indicator is not applicable for this PIR 2019 reporting period. |
| **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): | 57.73% |
| Cumulative GL delivery against expected delivery as of this year: | 69.93% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 4,618,389 |

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| **Key Financing Amounts** | |
| PPG Amount | 200,000 |
| GEF Grant Amount | 8,000,000 |
| Co-financing | 31,570,000 |

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| --- | --- |
| **Key Project Dates** | |
| PIF Approval Date | Mar 11, 2014 |
| CEO Endorsement Date | Feb 16, 2016 |
| Project Document Signature Date (project start date): | Sep 8, 2016 |
| Date of Inception Workshop | Nov 24, 2016 |
| Expected Date of Mid-term Review | Dec 1, 2019 |
| Actual Date of Mid-term Review | *(not set or not applicable)* |
| Expected Date of Terminal Evaluation | Jan 1, 2021 |
| Original Planned Closing Date | Jan 1, 2021 |
| Revised Planned Closing Date | *(not set or not applicable)* |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2019-04-23 |
| 2019-01-29 |
| 2018-10-24 |
| 2018-07-17 |

# Critical Risk Management

|  |  |
| --- | --- |
| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Environmental | As described, this risk is evidenced by:  1. Destruction of the forest cover/overexploitation of fruit trees for fuelwood in Bassila, Savalou, Djidja, Abomey, Zagnanado and other communes.  The risk is “decreasing.”  As a predominantly biomass-energy country, forest destruction is the result of:  - the proliferation of traditional cooking stoves and inefficient improved stoves that use firewood or charcoal harvested from the natural community forests in the NAPA Energy areas, specifically, in Bassila, Savalou, Djidja, Abomey, Zagnanado and other communes;  - the use of fruit trees to produce charcoal;  - the predominance of carbonization as pollution sources; and,  - the intensive use of traditional kilns, a source of greenhouse gas (GHG) emissions in high-carbonization potential communes (including Djidja, Bassila, Dassa-Zoumè and Savalou).  The risk mitigation steps taken between 1 July 2018-30 July 2019 include:  - experiments with prototypes of clean and modern cooking technologies that use agricultural waste to reduce firewood use leading to deforestation in Bassila, Savalou, Djidja, Abomey, Zagnanado and other communes;  - awareness-raising sessions with the charcoal producers/merchants in Bassila, Savalou, Djidja et Dassa-Zoumè, Ouèssè, Djougou, Toucountouna and N’Dali and the forest agents on the harmful impacts of the traditional carbonization technology and the introduction of resilient, alternative carbonization technologies;  - information and awareness-raising sessions for managers from forest inspection agencies, forest cantonments, and communal water, forest and hunting agencies on the energy sector’s vulnerability to climate variability and risks and on appropriate adaptation measures in Benin’s energy sector; and,  - development (underway) of the technical document for building the first improved charcoal kiln prototypes.  2. Destruction of the plant cover by fire in Fita-Agbado  The risk is “decreasing.”  Burning plant debris technique after land clearing to clean agricultural plots remains an age-old practice in certain regions of the country in general and, specifically, in Fita (Dassa-Zoumé).  This risk was identified during exploratory missions to analyse the baseline situation at the project intervention sites. It no longer constitutes a risk because of the following actions:  - Contact made with the actors concerned (including farmers (male and female)), charcoal producers and women who gather firewood) and information sessions held on the advantages of biomass and decaying wood debris to improve soil fertility, the advantages of mulch, moisture retention under mulch benefiting crops, introduction of best forestry practices, carbonization techniques, and sustainable land management, etc.  - Awareness-raising and sensitization sessions held on the need to preserve natural and forest resources.  3. Destruction of forest resources around the SBEE electricity distribution network’s electrical connection cables (HVA, HVB, MV and LV) in Atacora and Donga departments.  The risk is “decreasing.”  To protect the electrical network against all threats, entropic or not, SBEE periodically removes anything that might block the area immediately around the electrical connection cables. This typically involves trees and bushes that have already reached a certain height. However, in the latter case, SBEE does not often require the authorization of the Forestry Inspection Agency for the appropriate assistance.  The NAPA Energy project carried out the following actions for that purpose:  - an awareness-raising session as part of the NAPA Energy project management team’s participation at a statutory meeting of the Departmental Administrative Conference (DAC), held in Djougou, to encourage SBEE to collaborate with the Forestry Inspection Agency to obtain the necessary authorizations, monitoring and appropriate assistance;  - installation (underway) of two (2) smart transformers and their accessories. These adaptation measures will build resilience to climate variability and change affecting Benin’s national electricity transport and production infrastructure. The “Littoral 1” and “Littoral 2” stations in Cotonou will house these smart transformers, helping SBEE protect against climate and environmental risks.  4. Destruction of seedlings by grazing steer and goats belonging to the sedentary Fula people  The risk is “decreasing.”  Grazing steer and goats is one form of forage management available to the sedentary Fula people. However, given the current extreme droughts and rising temperatures, forage is becoming increasingly rare. The search for grazing areas under these conditions leads the animals to wander; this behaviour can lead to sometimes deadly conflicts between farmers and livestock producers.  This has always been a concern at all levels. To mitigate this risk in these intervention communes, the NAPA Energy project:  - held awareness-raising sessions among the sedentary Fula people who live near the project’s plantation sites;  - involved Fula people on the monitoring and security team for the plantations installed at the reforestation sites of the project’s natural community forests; and,  - installed three (3) cement identification plaques and six (6) metal plaques prohibiting access to transhumants and setting of wildfires at each of the seven (7) sites reforested by the project.  At the national level:  - An interministerial decree was issued in 2018 (N°402/MIP /MAEP /MAEC /MCVDD/ MEF/ MDGL/ DC/ SGM/ DAIC/ SA/ 082SGG18), which lays down the arrangements for the 2018-2019 transhumance campaign in the Republic of Benin.    5. Recurring lightning strikes affecting thermal power plants, electrical substations and the electricity transport and distribution network.  The risk is “decreasing.”  Recurring lightning strikes disrupt the operation of all electrical facilities. They occur at solar photovoltaic installations, thermal power plants and hydroelectric (Yéripao) power plants, electrical substations and the CEB electricity transport and distribution network;  - They may cause momentary disruptions in service continuity, thus degrading the quality of the electricity supply;  - They may destroy equipment and, consequently, cause long service interruptions; and  - They are a danger to human safety.  The NAPA Energy project has taken several actions to mitigate this risk, including:  For the solar photovoltaic installations:  - capacity building for the actors on dealing with lightning strikes at photovoltaic power plants and mini-power plants and adaptation measures specific to climate variability;  - developing the notion of resilience in solar photovoltaic. This involves low-cost, low-carbon storage solutions as a specific solar photovoltaic adaptation measure. This innovation introduces resilience into solar photovoltaic installations in villages not served by the national power grid. The installations are designed to provide several energy services (lighting, electricity for various uses, freezing medicines, drinks and agro-food products, etc.); and,  - strengthening the security and protection of solar lights from lightning. Lighting had knocked out several lights that were operating initially in the vulnerable communities of Kolobi (Djidja) and Kokohou (Té-Foungou Djougou).  The NAPA Energy project thus secured the installations using safety measures, such as appropriate lightning rods. These activities have facilitated sustainable energy access for populations not served by the national power grid.  - strengthening the security and protection of the mini-power plants from lightning. These activities have facilitated sustainable energy access for populations not served by the national power grid.  For the thermal and hydroelectric power plants (Yéripao), their stations, substations, source substations and relay stations:  - purchase and acceptance of appropriate electrical equipment and supplies to protect the electrical connection cables (25 lightning rods and 50 surge arresters) and their servers/accessories to reduce SBEE thermal power plants’ vulnerability to climate variability and change and protect against climate and environmental risks.  - purchase and acceptance of two (2) smart transformers and their accessories. These adaptation measures will build resilience to climate variability and change affecting Benin’s national electricity transport and production infrastructure. The “Littoral 1” and “Littoral 2” stations in Cotonou will house these smart transformers, helping SBEE protect against climate and environmental risks.  For the CEB electricity transport network:  - purchase (underway) of one (1) 20 MVA-63kV smart transformer and its accessories for CEB.  6. Loss of energy along the transport and distribution networks in Natitingou, Porto-Novo and Kandi communes.  The risk is “decreasing.”  Several studies have found that higher temperatures lead to significant energy losses in the electricity transport and distribution networks in several communes, including Natitingou, Porto-Novo and Kandi. CEB and SBEE have also noted that higher temperatures affect distribution and power transformers. This risk can result in explosions of porcelain in the transformers or micro-short circuiting, which can destroy them.  As the NAPA Energy project’s mission is to develop resilience in the energy sector to climate change in Benin, project implementation has contributed to:  - the integration of adaptation measures to mitigate heat and higher temperatures in risk management training programme curricula for SBEE and CEB actors;  - information sessions with managers and technicians in charge of the management and sustainable maintenance of production facilities (thermal and hydroelectric power plants) and the SBEE and CEB electricity transport and distribution networks so that they gradually become resilient to extreme heat and higher temperatures;  - taking into account the specific parameters of extreme heat and higher temperatures in the smart transformers’ servers, which are supposed to control the flow of electricity to stabilize SBEE’s and CEB’s aging existing electrical networks. These smart systems also allow Benin to use smart high-capacity, more resilient electricity transport and distribution systems;  - creating 750 ha of plantations with multipurpose, fast-growing forest species in the natural community forests;  - purchase and acceptance of appropriate infrastructure (25 lightning rods and 50 surge arresters) and their servers/accessories to reduce vulnerability to climate variability and change at the thermal power plants, benefiting SBEE, and to protect against climate and environmental risks;  - purchase and acceptance of two (2) smart transformers and their accessories. These adaptation measures will build resilience to climate variability and change affecting Benin’s national electricity transport and production infrastructure. The “Littoral 1” and “Littoral 2” stations in Cotonou will house these smart transformers, helping SBEE protect against climate and environmental risks; and,  - purchase (underway) of one (1) 20 MVA-63kV smart transformer and its accessories for CEB.  7. The pollution created by the intensive use of traditional kilns, a source of greenhouse gas (GHG) emissions in high-carbonization potential communes (including Djidja, Bassila, Dassa-Zoumè, Savalou and others).  The risk is “decreasing.”  Biomass energy (firewood and charcoal) is the main energy source for both rural and urban households in Benin, which leads to the destruction of the forests. The country’s charcoal production technique still requires the intensive use of traditional kilns, a source of GHG emissions in high-carbonization potential communes (including Djidja, Bassila, Dassa-Zoumè, Savalou and others) and the cause of considerable lung disease and infections.  The project’s mitigation measures include:  - identifying prototypes of improved carbonization technologies;  - experimenting with prototypes of clean and modern cooking technologies that use agricultural wastes to reduce the use of firewood, which causes deforestation in Bassila, Savalou, Djidja, Abomey, Zagnanado and other communes.  This involves primarily the following prototypes: (i) clean (improved) cookstoves – single cooker using natural air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from the forests, (ii) clean (improved) cookstoves - single cooker using double air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from the forests, (iii) pressure cookers – single cooker using natural air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from the forests; and (iv) pressure cookers – single cooker using double air circulation, fuelled by agricultural residues (including corn, wood and rice husk residues), replacing wood and intended to limit the use of firewood harvested from the forests;  - holding awareness-raising sessions with charcoal merchants in Bassila, Savalou, Djidja et Dassa-Zoumè, Ouèssè, Djougou, Toucountouna and N’Dali and forest agents on the harmful impacts of the traditional carbonization technology and the introduction of resilient, alternative carbonization ones;  - holding information and awareness-raising sessions for managers from the forest inspection agencies, forest cantonments, and communal water, forest and hunting agencies on the vulnerability of the energy sector in the face of climate variability and risks and on appropriate adaptation measures in Benin’s energy sector;  - developing the technical document (in process) for building the first improved charcoal kiln prototypes; and,  - drafting the TORs for a study mission to countries (Ghana/Senegal/Tanzania/Belgium) with strong experience in the institutional development of improved carbonization and methods for calculating GHG emission reductions.  8. Irregular rains, leading to uncertainty about when the growing season starts.  The risk is “decreasing.”  With the effects of climate variability and risks now visible, rainfall has become irregular and rains are ending early. This has an impact on all of the country’s economic development sectors, including agriculture and energy, and creating uncertainty about when the growing season starts.  Given this risk, the NAPA Energy project has carried out several activities with the impacts of this risk in mind. They include:  - conducting a study on “Introducing climate resilience in West Africa: Directory of astronomical dates of the rainy seasons in Benin’s villages and neighbourhoods.” This is in response to growing uncertainty about when the seasons start. The study report is already available, edited and recorded in the National Library of Benin;  - holding information sessions for energy sector actors on the usefulness of predetermined dates of the rainy seasons in Benin; and,  - holding awareness-raising and sensitization sessions for producers in the NAPA Energy intervention areas on observing the planting dates to benefit from the rains.  9. Flooding of the thermal power plant sites in Cotonou (Akpakpa), Porto-Novo and affiliated electrical substations.  The risk is “decreasing.”  The thermal power plants in Cotonou (Akpakpa), Porto-Novo and affiliated electrical substations are located in agroecological zone 8 (fisheries zone), as defined by Benin’s 2nd National Communication on Climate Change. This zone is known to be at increased risk for flood and sea spray along the coast.  Concerned about the resilience of the energy infrastructure, including thermal power plants in Cotonou (Akpakpa), Porto-Novo and affiliated electrical substations in the project’s intervention area, NAPA Energy has, among other actions, contributed to:  - integrating adaptation measures to mitigate the impact of rain: heavy and late rains (risk for supplies) or floods (flooding of electrical power plants) in the risk management training programme curricula for SBEE and CEB actors;  - holding information sessions with managers and technicians in charge of the management and sustainable maintenance of the production installations (thermal and hydroelectric power plants) and the SBEE and CEB electricity transport and distribution networks so that they gradually become resilient to extreme heat and rising temperatures;  - transfer of the CEB Lokossa site (southwestern Benin) to the installation’s tenderer selected and the commissioning of the smart 20 MVA-63kV power transformer benefiting CEB;  - holding awareness-raising sessions for the actors in charge of the power plants on setting up greenways around the plants; and,  - evaluating the climate change vulnerability of thermal power plants in Cotonou (Akpakpa), Abomey-Calavi, Porto-Novo, Kandi, and Natitingou, in view of the increasing intensity and frequency of droughts, together with protection measures (report available and recorded in the National Library of Benin).  In conclusion, at 30 June 2019, all of these risks are “decreasing.”  The project has performed well. |

# 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.** |
| An independent mid-term review of the NAPA Energy project will be conducted mid-way through project implementation. The project began officially on 16 October 2016, to run for five (5) years. Logically, the mid-term evaluation is being conducted.    To that end, the TORs have already been drafted and sent to the regional office for assessment and to ensure that they follow the GEF template. The regional bureau approved them on 9 May 2019 and hiring is underway for the mid-term review team. It will include an international expert and a national expert. |

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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.** |
| The relevant administrative documents for the mid-term review of the NAPA Energy project have been prepared. As part of implementation, the mid-term review will make it possible to assess progress towards achieving the results and will determine whether a course correction is necessary. Hiring of the consulting team responsible for the project mid-term evaluation is underway. There have been no delays in the project’s mid-term evaluation to date. |

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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.** |
| There is a delay in the submission of the mid-term review report. which is still pending. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Highly Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | The NAPA Energy project is the first innovative adaptation project in Benin’s energy sector. Thanks to the well-functioning project governance bodies, the strong involvement of the stakeholders (the sectoral ministries, the private sector, the project management team, the political-administrative authorities at various levels, the beneficiary populations and others), the project is on track to achieve its objectives on schedule.    UNDP’s involvement in monitoring and supervising the planned adaptation actions helps to ensure the project’s success and ownership by the national stakeholder.    The involvement of the Ministry of Energy and the presidential energy sector project monitoring unit (UPS) facilitates timely project deliveries.    The project management team receives systematic authorizations to implement the monthly workplans. These plans are accompanied by the evaluation of the prior month’s workplan. All of the documents are submitted for prior approval by the responsible ministry.    The project’s physical and financial performance continues to progress.    The physical execution rate and financial execution rate were 74.12% and 95.62%, respectively, relative to the 2018 annual workplan (AWP).    At 30 June 2019, those rates stood at 55.44% and 68.60%, respectively, relative to the AWP. Relative to the project’s full cycle at 30 June 2019, the physical and financial implementation rates are 41.47% and 56.95%, respectively.    These execution levels reflect the project’s actual efforts throughout implementation over this PIR reporting period. They exceed expectations, which are approximately 50% for both physical and financial achievement.    The project’s 2018 HACT audit, planned by UNDP and conducted in February 2019, corroborates this. The audit covered: (i) all of the expenditures (quarterly financial reports) initiated and issued directly by the implementing partner and established in the Combined Delivery Reports (CDR) at 31 December 2018; (ii) cash position (cash on hand and bank balances) at the close of FY 2018; and, (iii) status of assets and equipment held by the project at 31 December 2018. When this independent audit was complete, based on a methodological approach that complies with the International Standards on Auditing (ISA) and International Standards on Related Services (ISRS) 4400, all of the audit firm’s opinions were favourable.    This is also the result of the daily monitoring and supervision by the project’s responsible parties, including UNDP, the Ministerial Authority, the National Project Management and the UPS for energy sector projects.  National ownership and empowerment of the Government contributed significantly to achieving these results. This holistic national ownership constitutes a major success for implementation of the NAPA Energy project. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Highly Satisfactory | Highly Satisfactory |
| Overall Assessment | The NAPA Energy project started up officially in October 2016 and began with an analysis of the baseline situation.    A broad-based mission, composed of the project’s various stakeholders, visited all of the intervention sites. This delegation, which included primarily the project management team, the National Project Directorate, the General Directorate for Energy (DGE) and the private sector (including AISER), spent nearly two months conducting the baseline situation analysis at: (i) the 14 project intervention sites (Djougou, Savè, Ouèssè, Savalou, Dassa-Zoumé, Toucountouna, Natitingou Zangnanado, Covè, Pèrèrè, N'Dali, Djidja, Tanguiéta and Kandi; (ii) the waterways of Ouémé, Sota, Pendjari, Zou, Mono and, specifically, the Yéripao site, the Sosso, Gbassè, Koutakroukrou, Kota, Wabou and Kouporiokou waterfalls; and, (iii) the cities with thermal power plants Cotonou (Akpakpa), Porto-Novo, Kandi and Natitingou).    This baseline situation analysis revealed that the environmental risk is the one and only major risk facing the NAPA Energy project.    The description of this risk refers to violent winds, rising temperatures, the influence of rainfall, lightning, destruction of the forests and the movements of the transhumant Fula.    During 33 months of project implementation, the descriptions of this environmental risk all moved from “status quo” or “decreasing” in the third quarter 2018 to “decreasing” as of 30 June 2019.    Performance in terms of mitigating these descriptions of the environmental risk illustrates the management responses implemented, including: (i) strengthening the prevention mechanisms and (ii) establishing an approach that involves the private sector, using the service-rendered-before-payment-is-made method.    The NAPA Energy project made huge progress based on the efforts of the various stakeholders; specifically, the strategic leadership of UNDP, which can be seen primarily in change management at the project level. This strategic leadership allowed the project management team to develop its capacities, thus enabling it to achieve its potential by contributing to strategic thinking in the sector. Linking the project indicators to the national policy and strategy documents increased the visibility and comprehensibility of this adaptation project within Benin’s energy sector. Thus, during its implementation, the NAPA Energy project made a significant contribution to developing resilience within the energy sector; specifically, to achieving the results of the Government Action Programme (PAG 2016-2021), the Sustainable Development Goals (SDG 2015-2030) and African Union’s Agenda 2063), all of which are essential to the transformational development of the populations and the fight against poverty in Benin.    Operationalization of national ownership and empowerment of the Government, a UNDP a priority, was thus strengthened, as were inclusive management and the proper functioning of the project’s governance institutions. The statutory sessions of the project governance bodies met regularly on the proper dates.    The innovations and resilience-integrating character of the project’s proposed solutions contributed significantly to reducing the local populations’ dependence on fossil fuel and biomass to meet their basic energy needs.    The project always completes 90% of its workplans by the end of every year., The physical execution rate and financial execution rate were 74.12% and 95.62%, respectively, relative to the 2018 annual workplan. At 30 June 2019, those rates stood at 55.44% and 68.60%, respectively, relative to that year’s AWP. Relative to the project’s full cycle at 30 June 2019, the physical and financial implementation rates are 41.47% and 56.95%, respectively. If the NAPA Energy project maintains this pace of performance, it will certainly achieve its development objectives: developing resilience within the country’s energy sector. To achieve all of these results, the project had to create synergies with other projects in this sector; specifically, the Biomass Electricity project.    With a view to consolidating the project’s results, the process of ensuring that the achievements are sustainable and of setting up the mechanisms for the project’s end are already underway. Given that these achievements are experimental in nature and represent a “demonstration,” consolidating them and ensuring ownership required the involvement of the public partner entities.    Last, GEF funding constituted catalytic funding for this climate change adaptation project in the sector.  All of the above will make it possible to improve the country’s energy mix by 2030 and free Benin, once and for all, from the grip of technical and climate insecurities and risks facing Benin’s national energy sector. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | Highly Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | I am delighted that Benin has benefited from this financing to implement its NAPA Energy project. The project is operating in a national context characterized by multiple, recurring energy challenges that affect all economic development sectors. Climate change also has a dangerous impact on the country’s energy sector, resulting in line losses along the distribution and transport systems.  The contributions of the NAPA Energy project also include intellectual products on innovative topics for the energy sector, and the provision of smart electrical equipment and supplies benefiting the electricity transport and distribution systems. Vulnerable populations located in the areas not served by the conventional grid also benefit from mini-solar PV plants and resilient solar PV lights.  The NAPA Energy project also builds capacity. Many energy sector actors have benefited from capacity-building sessions on how to integrate climate resilience in the construction of resilient mini-solar PV plants.  This project has a major transformative impact on Benin’s energy sector actors.  It is also a job-creating project, with a total of 8,411 local workers hired (6,328 men and 2,083 women (24%)) as of 30 June 2019.  Last, relative to the project’s full implementation cycle, the results noted at 30 June 2019, beginning with project start-up in October 2016, show physical and financial implementation rates of 41.47% and 56.96%, respectively.  Given the project’s increasing performance levels, NAPA Energy is sure to achieve total success.  This is the “benchmark” adaptation in the energy sector for the entire country. | |
| **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 | The NAPA Energy project is one of the major projects of the General Directorate of Renewable Energy (DGRE) that I am proud to lead. I am personally very involved in implementing this high-impact project in the energy sector.    Thanks to this project, ten (10) communities not served by the conventional grids benefit from resilient mini-solar PV plants, which provide basic energy services (including lighting, mobile phone recharging, availability of water and frozen drinks, and easy access to televised information) to vulnerable populations in the project’s intervention areas.    Several resilient solar lights have also been installed in all of the project’s target communities.    The project furnished the CEB with a smart power transformer. It will control the flow of electricity to stabilize the electrical networks and the losses of nearly 80% and handle many more climate conditions.    The NAPA Energy project also supported SBEE in integrating resilience to climate variability in its system and electricity stations/substations in the city of Cotonou (southern Benin). This was operationalized with the purchase of two (2) smart distribution power transformers, which will control the flow of electricity to stabilize the power systems, reduce losses by nearly 80% and handle many more climate conditions.    With this kind of support from PANA Energy, CEB and SBEE are able to sell electricity to residential customers.  I am quite satisfied with the achievements and performance of the NAPA Energy project and, in particular, of the sustained support from UNDP. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Satisfactory | Satisfactory |
| Overall Assessment | The project "Strengthening the resilience of the energy sector in Benin to the impacts of climate change" was launched in October 2016 and should end in September 2021. The project objective is to reduce the impacts of climate change and variability on Benin's energy sector. It involves (i) contributing to the removal of the main institutional, political and financial barriers and those relating to the individual capacities and knowledge that hinder effective management of climate risks for this sector; (ii) introducing sustainable land and forest management practices to enhance the resilience of biomass/woodfuel production areas; (iii) introduce adaptation measures to strengthen the resilience of the national energy sector.    The main project components are as follows:  1- The first component concerns the adaptation capacities of the energy sector to climate change. The aim is to strengthen the country's capacity to enable the stakeholders involved to integrate climate risks into their energy forecasts and thus address climate risks, so that the risks of climate-related economic losses are reduced.  2- The purpose of the second component is to support the development of new frameworks for energy policies and strategies that will take into account climate change. Climate change issues and adaptation measures will be integrated into national and regional strategies and policies (according to the areas identified by NAPA).  3- The third component will take into account actions aimed at reducing the climate vulnerability of Benin's energy sources. It will focus on the protection of (i) watersheds, (ii) exploited forest areas providing energy to populations, and (iii) power generation and distribution centers. It will assess the vulnerability of these areas and take action involving all parties concerned to protect these sources of energy. In addition, it will support the development of alternative energy sources for the most vulnerable communities.    The project budget was planned as follows:  GEF USD 8 000 000,  UNDP USD 500,000  Governement USD 16 000 000  The Communauté Electrique du Bénin - CEB (Electricity Community of Benin) USD 15 000 000  NGOs USD 70.000    Overall, the annual Physical Execution Rate as of March 31st of the PTA 2019 was of 26% and the Financial Execution Rate was of 35%. The mid-term review report which was due in May 2019 is still pending. Once available the Financial performance of the project will be assessed by the UNDP regional team.    While the GEF and UNDP funds are confirmed and being the main source of financing of the project activities, there is no clear indication in the project reporting on the allocation of committed funds by other partners.    Otherwise, the project is being implemented successfully by UNDP Benin. All activities are on track and disbursment has been taking place as per the project calendar. Amongst the project achievements, we can mention the strong involvement of national and local authorities in the implementation of the project: There is strong commitment from the various stakeholders and project management bodies (UNDP, Ministry of Energy, Water and Mines, the General Directorate of Energy, the Project Management Team and the private sector: AISER, etc.) for the achievement of project objectives.    This project is to be used as an exemple of succesful application of NAPAs in the Energy sector, usually covered by mitigation. | |

# 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.** |
| [Rapport\_prise en compte\_Genre\_ PANA Energie\_final\_au\_31-12-2018.pdf](https://undpgefpims.org/attachments/4979/213728/1727824/1741956/Rapport_prise%20en%20compte_Genre_%20PANA%20Energie_final_au_31-12-2018.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: Yes |
| 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** |
| **GEN3:** gender equality as a principle objective |

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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.** |
| According to the United Nations, sexual and gender-based violence refers to any act that is perpetrated against a person’s will and is based on gender norms and unequal power relationships. It includes, among others, threats of violence and coercion. Sexual and gender-based violence violates fundamental rights and also prevents women from exercising their other economic and political rights. It is neither inevitable nor acceptable.    Thus, thanks to UNDP’s strategic leadership, sexual and gender-based violence is a priority, as demonstrated by change management at the project level.    The diverse high-impact, flagship activities that the project has developed in vulnerable communities, with a high level of participation by women, still require: (i) strong involvement by women; (ii) empowerment of women; (iii) improvement in women’s income; (iv) improved social status for women; and (v) improved economic status for women.    To that end, all of the NAPA Energy project’s actions - including work on the reforestation chain, installation of mini-solar PV power plants and resilient solar lights – contributed significantly to promoting gender equality and women’s empowerment to achieve the project’s environmental- and/or resilience-related results.    All of these actions, developed with women’s participation and involvement, have a strong and positive impact on the upward social and economic mobility of women in the NAPA Energy project’s vulnerable areas of intervention.    The following are the result of incorporating gender concerns in project implementation: (i) total participation in implementing the project’s activities stood at 8,411 individuals (including 2,083 women, or 25%); (ii) improved local economies via payment of local workers to carry out project activities in the communes (365,433,191 FCFA, including 101,499,639 FCFA for women, or 28%); (iii) improvements in women’s living conditions and social standing through the development of IGA, with increased turnover of 101,499,639 FCFA from nursery activities, processing of manioc into gari, processing of soy into cheese, small animal production and other activities; (iv) two female business executives rose from nursery workers to the status of approved reforestation service providers, improving their economic status and resulting in increased turnover of 45,616,250 FCFA; and, (v) improved knowledge among men, women and children via the televised broadcasts in the solar kiosks installed by NAPA Energy.    In sum, the NAPA Energy project, under UNDP’s strategic leadership, contributes significantly to combatting gender-based violence and creates, within all of the households affected, a positive environment and collaboration that includes all members of the household, leading to transformational change ensuring the full development and well-being of women, men and children. Member of the households impacted by the NAPA Energy project now share roles and responsibilities. |

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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.** |
| In accordance with the principle of “no person left behind,” as declared by the United Nations, the gap between men and women in various sectors of the country’s economic development should be bridged.    As a development project, NAPA Energy focuses on national policies and priorities, as set forth in the Government Action Programme (PAG 2016-2021), the United Nations Development Assistance Framework (UNDAF 2014-2018), Benin’s National Gender Promotion Policy (2009), and the UNDP-Benin Gender Equality Promotion Strategy. It is also linked to international policies and priorities, such as the Sustainable Development Goals (SDG 2015-2030) and Agenda 2063 of the African Union.    These policies and priorities highlight a basic and cross-cutting development issue: adopting a gender perspective and advancing the status of women.  To that end, the NAPA Energy project management team established this issue as a key priority in all project interventions.    During this PIR reporting period, the NAPA Energy project:  - updated the report on adopting a gender perspective in project implementation as of 31 December 2018.  The report featured the following major accomplishments in that area:  - Improved access to energy sources for women, particularly to forest sources.  Clearly, inequality between men and women – particularly in terms of access to resources – has declined sharply in the project’s intervention communities. Today, these women have access to forest resources. They participate just as men do (although not in the same proportions) in the services with the project. They have access to forest resources and can produce charcoal. They are even ready to participate in the beekeeping trainings that NAPA Energy is preparing to offer in the third quarter 2019.  - Adopting a gender perspective within the project management team  At 30 June 2019, the team was composed of 30% women and 70% men.  - Adopting a gender perspective in planning, monitoring and evaluating NAPA Energy’s activities in the field    As part of the monitoring (interviews and surveillance) of the 500 ha planted and the 750 ha reforested by the project, many awareness-raising and advocacy sessions have been held with the providers of the various services and works. As a result, women have participated in activities at the different sites.    A total of 2,083 women – 25% of the total 8,411 persons –participated in the work at the Kolobi (Djidja), Fita (Dassa-Zoumé), Gbédé (Ouèssè), Bobè (Bantè) and Té-Foungou (Djougou), Nonsinanson (N’Dali) and Dahendé (Toucountouna) sites. In addition, 10 of the 202 local workers who set up the resilient mini-solar PV plants and solar lights under the project were women.    The project also benefited from the support and advice of 155 agents from the water and forestry agency, including 16 women (10%), through the implementation of a memorandum of understanding with the DGEFC.    As part of the operationalization of the partnership agreement with INRAB, 35% (149) of the 421 participants in the technical capacity-building sessions on best practices in sustainable land management integrating climate risks facing the communities neighbouring the natural community forests were women.    - Adopting a gender perspective in field missions  Awareness-raising and advocacy sessions were held as part of the field missions. The sessions addressed monitoring and maintenance of and community participation in managing the infrastructure installed by the project. Twenty-six percent (181) of the 687 participants were women.  - Adopting a gender perspective in the project methodology and report validation workshops  Of the 1,281 participants, 13% (164) were women. These diverse participants benefited from the technical knowledge and expertise offered by resource persons on the project’s new topics.  - Adopting a gender perspective in reforesting the banks along the hydroelectric sites  The project hired 75 local workers (including 53 women, or 71%) to reforest the banks along the hydroelectric sites. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| The populations neighbouring the project’s interventions sites depend heavily on agricultural production for their food security and to meet their basic needs. They also rely on traditional forms of energy (firewood/charcoal for cooking, traditional oil-based lights and battery-powered lamps).    However, NAPA Energy’s many activities that adopt a gender perspective promoted the empowerment of women and improving the project’s results.    To that end, a host of actions helped to develop resilience in environmental management, as shown by the following:  - the beneficiary populations are better informed regarding environmental aspects and have adopted of pro-environmental behaviour,  - women are involved in the activities of the reforestation chain, which has led them to change their behaviour -à-vis the environment,  - women’s participation in using basic energy services (including lighting, mobile phone recharging and access to televised information) provided by the resilient mini-solar PV power plants set up by NAPA Energy in communities not served by the conventional grid has contributed to greater awareness and transformational behaviour change,  - women’s participation in technical capacity-building sessions on sustainable land management best practices that integrate climate risks facing neighbouring communities has helped to improve agricultural production techniques to address food insufficiency and reduce poverty among the target populations.    All of the NAPA Energy project actions contributed significantly to promoting gender equality and women’s empowerment to achieve the project’s environmental and/or resilience results.    The following are a result of incorporating gender concerns in project implementation: (i) a total of 8,411 individuals (including 2,083 women, or 25%) participated in implementing the project’s activities; ; (ii) local economies improved thanks to payments to local workers to conduct project activities in the communes (365,433,191 FCFA, including 101,499,639 FCFA to women, or 28%); (iii) women’s living conditions and social standing improved through the development of IGA, with increased turnover of 101,499,639 FCFA from nursery activities, processing of manioc into gari, processing of soy into cheese, small animal production and other activities; (iv) two female business executives rose from nursery workers to the status of approved reforestation service providers, improving their economic status and resulting in increased turnover of 45,616,250 FCFA; and, (v) knowledge among men, women and children improved via televised broadcasts in the solar kiosks installed by NAPA Energy. |

# 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:** [PIMS 4979 Benin LDCF Energy SESP 13Oct2015.docx](https://undpgefpims.org/attachments/4979/213728/1677597/1677878/PIMS%204979%20Benin%20LDCF%20Energy%20SESP%2013Oct2015.docx)  **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.** |
| [Compte\_Rendu\_3ère Session\_2017\_CTP\_PANA Energie \_ BIOMASSE Electricité.docx](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/Compte_Rendu_3%C3%A8re%20Session_2017_CTP_PANA%20Energie%20_%20BIOMASSE%20Electricit%C3%A9.docx)  [Compte\_Rendu\_de l\_atelier de validation de 04 rapports.docx](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/Compte_Rendu_de%20l_atelier%20de%20validation%20de%2004%20rapports.docx)  [Rapport mission Communication\_systèmes solaires\_PV\_AER.docx](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/Rapport%20mission%20Communication_syst%C3%A8mes%20solaires_PV_AER.docx)  [Rapport mission réception travaux mise en terre 2018 PANA Energie.docx](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/Rapport%20mission%20r%C3%A9ception%20travaux%20mise%20en%20terre%202018%20PANA%20Energie.docx)  [Rapport mission réception travaux regarnissage PANA Energie.docx](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/Rapport%20mission%20r%C3%A9ception%20travaux%20regarnissage%20PANA%20Energie.docx)  [SESP 2019 PANA ENERGIE.pdf](https://undpgefpims.org/attachments/4979/213728/1727755/1741816/SESP%202019%20PANA%20ENERGIE.pdf) |

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

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

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

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

# Communicating Impact

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| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| The project’s flagship actions created many jobs, for a total of 9,038 direct jobs. They include: (i) 8,411 jobs in reforestation activities, including 2,083 direct jobs for women (24%) and 155 jobs created through support-advice from and supervision by the DGEFC; (ii) 75 jobs, including 53 direct jobs for women, involving the reforestation of banks along the hydroelectric sites and installation of Artocarpus altilis (breadfruit)-based agrosystems; (iii) 202 jobs, including 10 direct jobs for women, involving the installation of resilient mini-solar PV plants and resilient solar lights; (iv) 90 direct jobs following from the tenders issued by the project; and (v) 105 jobs following the statutory sessions of the technical committee.    The project strengthened the local economy by injecting 365,433,191 FCFA (including 101,449,639 FCFA for women, or 28%). Transformational change is taking place and can be seen in these beneficiary communes. |

**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.** |
| Social Media : (WatsApp, Facebook, Twitter, Flickr and YouTube, of project) are:        https://twitter.com/gouvbenin/status/999782472622714887/photo/1  https://twitter.com/gouvbenin/status/999788316693233664/photo/1  https://twitter.com/gouvbenin/status/999809103080935424/video/1  https://twitter.com/gouvbenin/status/999809103080935424/video/1  https://twitter.com/gouvbenin/status/999802449341886464/video/1  https://twitter.com/gouvbenin/status/999798936440393728/video/1  https://twitter.com/gouvbenin/status/999807979565342720/video/1  https://twitter.com/gouvbenin/status/999803832417816576/video/1  https://twitter.com/gouvbenin/status/999815004449886208/video/1  https://twitter.com/gouvbenin/status/999804132021161985/video/1  https://twitter.com/gouvbenin/status/999802582334869504/photo/1  https://twitter.com/gouvbenin/status/999804473487888384/photo/1  https://twitter.com/gouvbenin/status/1000000380300857347/photo/1  https://twitter.com/gouvbenin/status/999999007274528768/video/1  https://twitter.com/gouvbenin/status/1000041286425022464/video/1  https://twitter.com/gouvbenin/status/1000041733466546176/video/1  https://twitter.com/gouvbenin/status/1000043839351132161/video/1  https://twitter.com/gouvbenin/status/1000041306025086977?s=08  https://twitter.com/gouvbenin/status/1000049321931309056/video/1  https://twitter.com/gouvbenin/status/1000049321931309056/video/1  https://twitter.com/gouvbenin/status/1000053819135447042/photo/1  https://twitter.com/gouvbenin/status/1000046708162813952/video/1  https://twitter.com/gouvbenin/status/1000050911505473541/video/1  https://twitter.com/gouvbenin/status/1000054721015623685/video/1  https://twitter.com/gouvbenin/status/1000054823675363328/video/1  https://twitter.com/gouvbenin/status/1000051073250361344/video/1  https://twitter.com/gouvbenin/status/1000075305887944705/photo/1  https://twitter.com/gouvbenin/status/1000119618755809280/video/1  https://twitter.com/gouvbenin/status/1000120298480553993/video/1  https://twitter.com/gouvbenin/status/999999007274528768/video/1 |

# Partnerships

**Partnerships & Stakeholder Engagment**

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

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| **Does the project work with any Civil Society Organisations and/or NGOs?** |
| No |

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

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

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| **Does the project work with the GEF Small Grants Programme?** |
| Yes |

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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?** |
| Yes |

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| **CEO Endorsement Request:** [4979\_LDCF\_Benin\_CEO ER 2 Feb 16.doc](https://undpgefpims.org/attachments/4979/213728/1677605/1677890/4979_LDCF_Benin_CEO%20ER%202%20Feb%2016.doc) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| The NAPA Energy project is consistent with the laws in force in Benin on public-private partnerships (PPP).    The project worked with the following private sector actors at various stages of implementation:    - Private sector service providers hired to conduct topographic and mapping surveys of the reforestation areas.    Five (5) service providers hired by the National Project Directorate, in collaboration with the Ministry of Energy’s Public Procurement Officer (PRMP), for each of the community natural forest sites in Kolobi (Djidja), Fita (Dassa-Zoumé), Gbédé (Ouèssè), Bobè (Bantè) and Té-Fougou (Djougou).    - Private sector service providers hired to establish the plantations.    Several service providers hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, to reforest the five hundred (500)-ha areas at the community natural forest sites of Kolobi (Djidja), Fita (Dassa-Zoumé), Gbédé (Ouèssè), Bobè (Bantè) and Té-Fougou (Djougou) as part of the 2017-2018 reforestation campaign.    - Hiring of private sector service providers to establish the plantations.    Several service providers hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, to reforest the two hundred fifty (250)-ha areas at the community natural forest sites of Fita (Dassa-Zoumé), Nonsinanson (N’Dali) and Dahendé (Toucountouna) as part of the 2018-2019 reforestation campaign.    - Private sector service providers hired to maintain and monitor the seven hundred and fifty (750)-ha plantations at the community natural forest sites of Nonsinanson (N’Dali) and Dahendé (Toucountouna), Kolobi (Djidja), Fita (Dassa-Zoumé), Gbédé (Ouèssè), Bobè (Bantè) and Té-Fougou.    - Private sector service providers hired for the construction, installation and functional commissioning of five (5) resilient mini-PV power plants supplying the populations of five communities remote from the national electricity grid (lighting, electricity, GSM and lamp recharging, refrigeration for drinks, conservation of medical products, etc.). These private sector service providers were hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, for the beneficiary sites concerned.    - Private sector service providers hired for the installation and functional commissioning of forty-one (41) resilient solar lights supplying public lighting for the populations of five communities remote from the national electricity grid. These private sector service providers were hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, for the beneficiary sites concerned.    - Private sector service providers hired to purchase twenty-five (25) lightning rods and fifty (50) surge arresters for SBEE to secure the national energy infrastructures of its regional antennae, stations, source substations, relay stations and substations (Porto-Novo, Akpakpa, Natitingou, Yéripao and others) against climate events (including floods, extreme heat and violent winds). These private sector service providers were hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, for the beneficiary sites concerned.    - Private sector service providers hired to provide, install and commission two (2) smart distribution power transformers for the two SBEE strategic and sensitive sites (electricity supply for the populations) affected by climate variability. These private sector service providers were hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, for the beneficiary sites concerned.    - Research firms/design consultants, consultants, and service centres hired to conduct thematic studies. These private sector service providers were hired by the National Project Directorate, in collaboration with the Ministry of Energy’s PRMP, for assignments related to NAPA Energy’s interventions. |

# 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.