

CLIMATE INVESTMENT FUNDS

June 8, 2016

**[APPROVAL BY MAIL]: BUILDING RESILIENCE OF MOZAMBIQUE'S POWER SECTOR
THROUGH PRIVATE SECTOR INVESTMENT (PPCR) (IFC)**

IFC Responses to Sub-Committee

IFC’s responses to the PPCR Sub-Committee questions on the IFC-PPCR Project: Building resilience of Mozambique’s power sector through private sector investment

Comments/Clarifications	Responses
Germany	
<p>1. We welcome the proposed approach to build resilience of Mozambique’s power sector through private sector investment, combining mitigation and adaptation aspects in one project. However, partly due to its brevity, the proposal does not always clearly articulate how it differs from a conventional renewable energy project and how it actually contributes to building climate resilience. We therefore recommend stating more clearly which potential future climate change impacts are expected for the target region and the foreseen specific sites. Moreover, we suggest explaining in greater detail how the resilience of the proposed local PV plant and grid will directly be supported by describing more technical details of the proposed system (e.g. related to flood risks and subsequent erosion; operations during extreme weather events etc.) and clearly stating how these are better able to cope with the expected impacts of climate change. In the same vein, we kindly ask outlining clearly how the resilience for specific target groups and communities in the Mocuba District will be enhanced.</p>	<p>As stated in the Project proposal document, Mozambique’s power transmission system is vulnerable to interruptions due to floods and storms. Future climate change scenarios predict significant increase in the frequency and severity of similar extreme events where the Project will be located (Mocuba district in the Zambezia province in northern Mozambique). Moreover, severe droughts are expected to increase due to changes in climate, which will have a sustained long-term impact on Mozambique’s hydro-dependent generation. The Project can help reduce certain vulnerabilities in the Mozambique power sector, especially in the province of Zambezia, which suffers from high poverty rates and limited economic opportunities.</p> <p>Communities in this region do not have reliable supply of grid-tied electricity given the increasing number of devastating floods and prolonged drought, which have a direct impact on the highly centralized electricity system of Mozambique. The Project will also reduce the vulnerability of electricity supply due to electricity transmission on long distances. The bulk of the electricity generated by the Project will be consumed locally, reducing local communities’ exposure to weather-induced transmission and distribution outages. This is also consistent with EDM’s plans to significantly increase decentralized supply in the coming years to keep up with increased demand and adapt to climate change.</p> <p>Regarding the resilience of the Project itself, given the climate risks in the power sector in Mozambique and moreover, in Mocuba, the Project’s ability to withstand intense rainfalls and floods is critical to help address climate resilience in vulnerable communities. The Project is expected to incorporate technical design elements to increase the Project’s ability to withstand and continue to operate during heavy rains and floods. For example, a technical study on storm water management at the Project site is currently under review,</p>

	<p>which analyzes structural elements that can be used at the site to prevent damage and reduce disruption in Project operations.</p>
<p>2. We appreciate the overall objective to strengthen the private sector involvement in using the great potential of solar energy in the country. The proposal, however, does not specify who the project partners in the private sector are or how funds are being distributed among them. Therefore, we suggest elaborating in greater detail the sources of co-financing, who has committed to them and how exactly funding is being channelled through the private sector.</p>	<p>IFC proposes to invest PPCR funds into a private sector company that is developing a project jointly owned by Scatec, Norfund and Electricidade de Mocambique (EDM). Scatec is a Norwegian-based independent solar power producer, delivering affordable, rapidly deployable and sustainable source of clean energy worldwide; Norfund is also known as the Norwegian Investment Fund for Developing Countries and is a leading renewable energy investor in Africa. EDM is Mozambique's state-owned public power utility.</p> <p>The Project is in advanced stages of IFC's due diligence process and is preparing for Board approval of IFC financing. The Project can then move forward to securing firm commitments of commercial and concessional debt financing from IFC and other lenders in the amount required under a project finance structure, which will in turn, allow the Project developers to reach financial close and begin construction. Given that the financing package is not yet final, IFC is not able to disclose additional co-financing information beyond the expected amounts provided in Table 15 of the PPCR program proposal.</p>
<p>3. We acknowledge that IFC's environmental and social management framework is mentioned in the proposal. However, this only refers to the gender dimension. Concerning sustainability, the proposal does not explicitly outline how technical sustainability in the post-project context is ensured (such as long-term operations & maintenance). Also, no details are provided on an envisaged Environmental Impact Assessment (EIA) or any similar pre-assessments already carried out. Thus, we recommend describing how technical sustainability is ensured and stating the key facts related to any past or planned sustainability assessments (e.g. EIA).</p>	<p>IFC's Environmental and Social Performance Standards have been applied to all aspects of the Project, including gender components. To this end, IFC has conducted due diligence of the Project developers' commitment and capacity to manage risks associated with the Project, including its long-term operations and maintenance. Moreover, IFC will review the Project's ongoing compliance with the Performance Standards throughout the duration of the IFC investment. See also IFC's response to item #9.</p> <p>Per IFC's E&S Performance Standards, the Environmental and Social Impact Assessment has been conducted and is available to the public. Enclosed link here: http://ifchq21.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcd8a85257a8b0075079d/2b2b65346f67434e85257f4100649b85?opendocument</p>

<p>4. The proposed project emphasizes the objective to decrease women’s and girls’ vulnerability to extreme weather events by diversifying the energy mix and providing decentralized energy supply. However, there is no detailed gender-differentiated impact in direct relation to this project but rather a general estimation. Hence, we kindly suggest specifying the impact on women and girls, how their resilience is increased in direct relation to the proposed PV project and to what extent their participation in the proposed project is ensured.</p>	<p>Increased availability and reliability of electricity that will result from the Project are expected to: (a) power basic services such as hospitals and public lighting, that can help improve maternal health and safety, allowing women to participate in activities outside the home after dark; (b) facilitate provision of drinking water, agricultural uses and can reduce the time spent by women and girls fetching water; (c) increase economic opportunities by lengthening opening times for economic activities and businesses in which women are involved. Moreover, the Project will reduce the end-user tariffs which would positively impact women-headed households that constitute most chronically poor households.</p> <p>Depending on funding availability, IFC will carry out an impact assessment at an appropriate point in time of the Project life to specifically assess the impact of the Project on women and girls.</p>
<p>5. Since 2005, the energy access partnership Energising Development (EnDev), currently funded by the Netherlands, Germany, Norway, Australia, United Kingdom, Switzerland and Sweden, promotes the grid densification, pico and micro hydro power plants, small PV systems and clean cook stoves in Mozambique. As of today, more than 160.000 people in the country have gained access to electricity through this approach. Therefore, we strongly suggest coordinating with the EnDev programme in Mozambique to make use of valuable learning and promote synergies to the greatest extent possible.</p>	<p>IFC takes notes of the suggestion and will seek, together with the Government of Mozambique, ways to coordinate with the EnDev program in the country where possible.</p>
<p>United States</p>	
<p>6. Can IFC provide more information on the private sector developers/co-financers expected to participate in the</p>	<p>Kindly refer to IFC’s response to item #2 for Germany</p>

<p>project. How firm are the co-financing estimates? Where does the other concessional finance come from?</p>	
<p>7. What is the replication potential of the project?</p>	<p>The International Renewable Energy Agency estimates that Mozambique has a significant and largely untapped solar potential of approximately 1.5GWh, many times more than the country's current energy consumption. Under this context and given other sources of energy available in Mozambique, EDM reviewed least cost supply options in northern Mozambique and came to the conclusion that solar PV would be required as part of an overall solution to address growing power demand. As a result, EDM has initially identified two private sector PV projects for development to pilot and demonstrate grid-connected solar power generation in the northern region. The proposed IFC-PPCR Project is expected to be the first utility-scale solar IPP to be commissioned in the country.</p>
<p>8. More information on the resilience impacts of the project would be helpful. How resilient to climate change impacts is the project itself? How will the resilience of affected communities (can IFC be more specific about expected beneficiaries) be enhanced?</p>	<p>Kindly see IFC's response to item #1 for Germany</p> <p>Expected direct beneficiaries include grid-connected households, businesses, schools, and hospitals.</p>
<p>9. What is the likely category of this project? What is the likelihood that it would be category A?</p>	<p>This is a Category A project according to IFC's Policy on Environmental and Social Sustainability due to economic displacement affecting 208 households (1,283 persons). No physical displacement is required for the Project. Public consultations were held with representatives from Mocuba District and municipality, followed by a community meeting for all stakeholders. No opposition to the Project was raised.</p> <p>Key mitigation measures for economic displacement have been developed with IFC input and supervision. These include (a) cash compensation at full replacement value for loss of fruit trees, a few minor non-residential structures and a growing season worth of crops, and (b) the allocation and preparation of replacement land for affected households. Compensation payments were</p>

	<p>completed in April 2016, and based on IFC's review, field visits, interaction with affected farmers and their leaders, meetings with social experts implementing the land acquisition process and with District and Provincial authorities, the compensation process has been undertaken in a through and consultative manner, involving time and resource commitments well beyond those required by national regulations and practices. The allocation of replacement land is ongoing and proceeding in consultation with local authorities and the chief of the affected area.</p> <p>The Environmental and Social Impact Assessment has been available and disclosed to the public Enclosed link here: http://ifchq21.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcdba85257a8b0075079d/2b2b65346f67434e85257f4100649b85?opendocument</p> <p>The Project will follow the Environmental and Social Action Plan (ESAP). Through implementation of measures under ESAP, the Project is expected to be designed and operated in accordance with IFC's Performance Standards.</p>
United Kingdom	
<p>10. Could the team please confirm that the commercial viability of the plant will ensure its sustainability, given national regulatory frameworks (eg on pricing) and how these will impact on grid-integrated local systems.</p>	<p>The commercial viability of the Project was closely considered by IFC in order to assess the role for concessional financing. Factors such as the "first of its kind" nature of the Project, the limited track record of Independent Power Producers (IPPs), and lack of ancillary services (such as engineering, procurement and construction services) in Mozambique each contribute to project developers and commercial lenders associating this kind of investment with high risks. Under these circumstances, the use of concessional finance can help address these barriers <u>and, above all, reduce the electricity tariff</u> for electricity consumers. If successful, the Project will create a demonstration effect that will reduce perceived risks for future projects and therefore require less concessional finance. The Project is fully in line with existing regulatory frameworks in Mozambique and the Government's goal to diversify the source of grid-connected utility scale power generation in the country.</p>

<p>11. While we understand the requirements attached to private sector investments, we would be interested to know whether there would be any possibility to make more direct improvements to the resilience of the existing generation and distribution networks in response to the issues highlighted?</p>	<p>The objective of the Project is to finance private sector development of a 40MW utility-scale solar PV plant in the Mocuba province that will help diversify the energy power generation and reduce risks associated with climate-related extreme weather impacts on the single long distance transmission line as described in the Project proposal. Additional improvements to the resilience of the existing national generation and distribution networks in Mozambique would be more appropriately addressed by public sector initiatives. There are some ongoing efforts by the government with the support from the World Bank and bilateral partners to strengthen and extend transmission and distribution networks in the country. The national utility company, EDM, is currently in the process of mobilizing funding for building a new modern transmission system that meets international best practice standards.</p>
<p>12. It would be good to understand how this development is going to be targeted geographically – on what basis will communities be selected, and will any vulnerable groups be supported?</p>	<p>The Mocuba district, where the Project will be located, was selected by the Government of Mozambique given the district’s geographic characteristics that are favorable for solar energy generation as well as its need for investments that promote economic and social development.</p> <p>Located in one of the poorest regions in Mozambique, the Mocuba Municipality has been designated as a Special Economic Zone (SEZ) by the Government in 2014 to promote development in the district and surrounding areas. It is expected that the SEZ will attract new commercial and industrial activities in the coming years that will provide employment and economic growth. These enterprises will require increased availability of reliable electricity supply from a local generation plant (such as the Project). Moreover, the population and the operation of basic services (hospital and schools) in Mocuba need to rely on reliable, resilient power to enhance its capacity to prepare, recover and rebuild from weather-related impacts. Therefore, the Project was included in the Government of Mozambique’s priority plan for infrastructure investments for 2015-2016.</p>

<p>13. How will the impact of this development on women and girls be monitored?</p>	<p>The Project will provide electricity services to up to 173,000 people of which 30% are women. Pending confirmation of funding, IFC will carry out an impact assessment at an appropriate point in time of the Project life to specifically assess the impact of the Project on women and girls.</p>
---	--