

May 29, 2012

Response of AfDB to United Kingdom on the Approval by Mail: Mozambique - Baixo Limpopo Irrigation and Climate Resilience - Project ID XPCRMZ021A

Climate Resilience in the Project

1. Climate variability has had frequent and catastrophic impacts in Mozambique. Between 1956 and 2010, 52 extreme weather events were recorded - 23 of which occurred between 2001 and 2010, with devastating effects on human life and property. The project will address this phenomenon through development of: (i) flood control structures that will drain water from the project site and protect intrusion of salt water from the sea, thus protecting the farms; (ii) an irrigation scheme that will withstand extreme climatic events (cyclones and floods); (iii) all weather rural roads that can withstand flooding; and (iv) test for adoption, climate resilient (drought and flood resilient) seeds. By ensuring a significant increase of agricultural production and livelihood diversification for the farmers and their communities, the project aims to build social resilience to cope with the effects of climate change. Complimentary to the specific measures oriented to climate change, the project will follow the implementation of environmental best practices, covering the management of water and other natural resources and soil protection as well as social concerns related to gender, equity, employment (in particular for women that form about 52% of the farmers), health and education, under an integrated social and environmental responsibility umbrella. In this respect, the project will provide funding to rehabilitate a school and a clinic within the scheme that were damaged during recent floods.

2. Apart from the general improvement in household income and therefore ability to combat climatic changes, specific climate resilience measures have been built in the project components as follows:

Component A: Infrastructures for Food Security

3. Sub-component 2: Improved Irrigation Infrastructure: Water conveyance in the area and in similar developments in the region usually uses compact earth canals as it is the least cost and labor intensive option. Unfortunately, this option is very fragile to the frequent floods in the project area and easily damaged or silted. To ensure that the scheme can withstand flooding due to climate variability and/or salt water intrusion during the flood season, the main conveyance channel, Canal C2, will be lined with geo-membrane (flexible plastic sheets) covered by plain concrete. This will stabilize the canal enabling it to withstand flooding and seepage. In addition, a secondary conveyance system of buried PVC pipelines will be constructed to derive water from Canal C2.

4. A system of secondary drainage ditches will also be set up in this area, which will boost the scheme ability to withstand excess water during extreme weather events. On the top of that, based on lessons learned especially from the floods of 2000 and the recent cyclone of January 2012, a standby generator will be installed at the main pump station that divert excess flood water to the Limpopo River to ensure continuous operations of the drainage pumps during electricity blackouts. This will provide resilience to the scheme against floods and cyclones and will prevent crop damage and enhance communities' tolerance to these events.

5. Sub-component 3: Rural Roads: One of the main impacts of the severe climatic conditions in the project area is the inaccessibility of the agricultural land during floods and cyclones due to poor roads. While the scheme has a well laid feeder road network, all of the roads are simple earth roads and most of this network is submerged during high rainy seasons. Under this component all roads within the scheme will be elevated and upgraded to All-Weather-Conditions. Rehabilitation will include drainage works and flood protection measures, especially on the western road separating and protecting the irrigation scheme and the city of Xai Xai from the Limpopo River. These modifications of installing proper road drainage and solid slopes will render climate resiliency to the roads during flooding.

Component B: Promotion of Farm Diversification

6. In order to improve crop diversification and climate resilience, a research institution will be contracted to undertake the testing and proofing of climate resilient seeds in four pilot farms to recommend Climate Resilient seed varieties that are suitable for regions of Gaza Province.

7. Also under this component, the project will contract a research institution to produce an easy-to-implement (ETI) guide for farmers on adaptation to climatic changes in Lower Limpopo Region using mainly local and regional experience. The project will provide training on the ETI guide for a total of 1000 farm families in the drainage areas and Magula Block East (equivalent to 5000 beneficiaries). Training on the ETI guide will also be repeated by Ministry of Agriculture to other rural communities in the Southern Regions of Mozambique.