

PPCR Niger Irrigation Program
IFC Responses to the comments from the United States

Comment 1: **We would like to see more information and specifics on how the market barriers identified in Section 3 will be addressed by the program in a way that will allow for sustained private finance after the program is finished.**

The high cost of irrigation equipment is mentioned as a barrier for smallholder farmers. We understand that PPCR funds would be used to partially cover the cost of the irrigation equipment provided in the pilot program. What percentage of the cost of the irrigation equipment would be borne by PPCR? Without such support for the cost of irrigation equipment once the program is finished, is the continued purchase of irrigation equipment by smallholder farmers sustainable? How will this market barrier be addressed in the future, once PPCR exits?

Similarly, we note that limited access to finance for irrigation equipment is also listed as a market barrier. We wonder how this market barrier will be overcome by the program. It seems that there is an expectation that financing would be provided through appropriate delivery channels such as “distributors, traders, and micro-finance institutions,” however, is it not likely that these organizations would have concerns similar to those of local banks? Why does IFC expect that affordable financing would be provided by such institutions?

IFC Response: Indeed, the cost of the equipment and lack of financing are two major problems hindering widespread adoption of irrigation in Niger. The partial cost coverage is therefore intended to encourage both farmers to adopt these technologies and suppliers to enter the market and provide the equipment. It is not clear at this time to what extent or by how much the upfront cost of the equipment will need to be covered. Rather than making assumptions on the level of cost coverage required, the project team has instead made it one of the criteria that different companies will compete against. In other words, everything held constant, the client that requires the least amount of cost coverage will be selected. The cost coverage using PPCR funds will lower the upfront cost to the farmer for the irrigation equipment and the balance of the cost will be provided as a loan to the farmer. The loan could be vendor-financed (provided by the equipment supplier) or through a micro-finance institution or through some form of joint-venture between the equipment supplier (who have greater familiarity with the farmers) and a local bank (that are less familiar with irrigation technologies and perceive farmers as risky borrowers).

In terms of sustainability beyond this PPCR intervention (which is an advisory program), the market and technical research undertaken by IFC showed that two irrigation technologies, namely “low pressure surface drip irrigation” and “subsurface drip irrigation” are viable business opportunities for Nigerien farmers. Capital investment for these irrigation systems can be paid back within three years by farmers. The express aim of the project is to generate sufficient data to demonstrate the technical and commercial viability to farmers, suppliers and financial institutions. By testing both the technical and commercial viability of the irrigation equipment in the Nigerien context, suppliers will be able to assess the risks and be able to take investment decisions as to whether they should expand their operations in Niger. The availability of this information in turn should lead to private investors (whether

equipment suppliers or financial intermediaries or both) to take up equipment financing to farmers as a business opportunity. Moreover, if suitable or necessary, IFC's investment program under PPCR could develop a risk-sharing facility to catalyse further private sector investment.

In terms of financing, information collected during project implementation (e.g. rates of payback on loans, return on investment for the farmer) will be used to determine which are the most appropriate delivery channels for finance (e.g. microfinance institutions, local banks, local farming cooperatives, and equipment suppliers). It is too early in the process to be prescriptive at present because each delivery channel has its own way of managing risks, and the risks will need to be well defined (using information generated by the project) before investment decisions can be taken.

Comment 2: To what extent research has been done on different irrigation technologies, in order to assess which are most appropriate and sustainable?

IFC Response: Financed by the project preparation grant (PPG), IFC commissioned a market assessment and technical research to identify the most appropriate irrigation technologies suitable to Niger. The findings of this assessment are presented in the IFC PPCR report "*Introducing Improved Irrigation Systems and Climate Resilient Seeds*" that is posted on the CIF website: (https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/IFC_PPCR%20Niger%20Irrigation%20Seeds_Public_Full_English_9Dec2013.pdf).

The following factors were considered in the selection of appropriate irrigation technologies:

- Soil type and terrain
- Water availability and source type
- Market, cost, and technical complexity of installation and maintenance of irrigation equipment
- Crop preferences of communities and suitability of appropriate irrigation systems
- Farmers' perceptions and preferences

The assessment showed that two irrigation technologies, namely "low pressure surface drip irrigation" and "subsurface drip irrigation", are the most viable business opportunities in the Nigerien agricultural context. The capital investment of both technologies can be paid back within three years, and the technologies are resource efficient, thereby promoting climate resilience. The project will seek to promote these resource efficient irrigation techniques but will not limit the choices to one technology so as not to limit competition in the client selection process.

Comment 3: We appreciate that the IFC has included gender considerations, and we urge that gender issues be mainstreamed into the program as it is developed. However, we wonder how the target of 20% for women's participation was selected. What percentage of farmers in these areas do women make up?

IFC response: The 20% for women's participation was selected by considering gender data from the following Nigerien survey: "*Recensement General de L'Agriculture et du Cheptel*"

(RGAC) conducted in 2004. A summary of this data is presented in the IFC PPCR report “*Agricultural Insurance Market Assessment*”

(https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/IFC_PPCR%20Niger%20Agri%20Insurance_Public_Full_English_23Feb2014.pdf) on page 65. The data show that Nigerien farmers operate within a patriarchal society with males heading up more than 85% of households, and in some areas more than 97% of households. Notably in the “15-34 years” age group, the number of women in rural agricultural areas exceeds the number of men because of immigration of young men to urban areas. Consequently, women play an important role in the implementation of farming operations, which has led to women’s farming groups being established in many areas. Having said that, Nigerien farming is dominated by male-headed households, and IFC has taken the considered view that a target greater than 20% of women farmers in the project could potentially be too ambitious given local cultural norms and practices. Although the client will be encouraged to exceed the 20% target, at this stage the project team believes that 20% is a prudent target.
