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Mauritania

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SONADER/AFRICARE SMALL IRRIGATED PERIMETER

Evaluation Report: November 1, 1982

Responses to State 81077

1. What constraints does this project attempt to overcome and who does it constrain?

This project primarily attempts to overcome the lack of training of the SONADER staff in the Gouraye sector of Mauritania. The project also provides technical advice to farmers who have built irrigated perimeters in an attempt to improve low agricultural productivity.

2. What technology does the project promote to relieve these constraints?

Training by an expatriate technical advisor is the way in which the education constraint is being overcome.

The low agricultural productivity is being improved by promoting the building of small perimeters, which are then supplied with water by small pumps. The villagers build the perimeters themselves, and are provided pumps by the SONADER organization at subsidized rates.

3. What technology does the project attempt to replace?

The present agricultural system practices a system of recession agriculture, with dry season fields planted in the area along the river as it recedes. The project has introduced the techniques of irrigated agriculture to supplement the rain-fed and recession agriculture in the area, and to increase the security of food production in years of low rainfall.

4. Why do project planners believe that intended beneficiaries will adopt the proposed technologies?

The project has demonstrated that yields can double if the techniques of irrigated agriculture are properly used. The design of the small perimeters is such that farmers retain far greater control of the land, and pay much less for overhead costs than they do with large irrigated perimeter projects.

5. What characteristics do intended beneficiaries exhibit that have relevance to their adopting the proposed technology?

The interest of the farmers is demonstrated by the fact that they contributed their own labor to build the perimeters and that they continue to farm them. The major hesitation of the villagers comes from the poor reliability of the pumps that have been installed. The

SONADER organization in this sector is underfunded and has provided relatively poor maintenance services.

6. Adoption rate of technology

The adoption rate of the pump technology has been slowed down by the unreliability of the pumps. However, the farmers have seen the value of irrigation and the use of fertilizer. They remain interested in building more irrigated perimeters, particularly if the mechanical problems with the pumps can be resolved.

7. Will the project set in motion forces that will induce further exploration of the constraint and improvements to the technological package proposed to overcome it?

The project has introduced new irrigated techniques of agriculture that will be useful in the area as dams are built upstream. The recession agriculture presently practiced in the area will change considerably. Hence, it is important that farmers become experienced in irrigation techniques.

The experience with the pumps will provide information about the necessity of purchasing pumps that are well-adapted to the task at hand and of setting up a better system of stocking spare parts and providing maintenance services.

8. Do private input suppliers have an incentive to examine the constraint addressed by the project and come up with solutions?

A major constraint on the development of private trade in the region is its isolation from the rest of the country. This problem is being addressed by a program of road building by USAID and other donors. The number of perimeters in the Gouraye sector presently would not provide enough business for a private supplier to set up shop. However, as more perimeters are built, there may be sufficient incentive for a private supplier to service pumps and stock spare parts, especially if it can be done on a regional basis. We would estimate it will take ten years to institutionalize private sector involvement.

9. What delivery system does the project employ to transfer the new technology to intended beneficiaries?

There are five extension agents working in nine villages to teach the methods of irrigated agricultural. Pumps and agricultural inputs are generally brought in by a ten-ton truck before the rainy season begins. During the rainy season, transportation is more difficult, often by motorized pirogue. The project provided technical and administrative assistance and training for the extension agents and the sector chief in order to improve their skills in extending the techniques of irrigated agriculture.

10. What training techniques does the project use to develop the delivery system?

The major method of training in the project has been on-the-job training and technical advice. Very little formal training was undertaken. The mechanics and pump operators did not receive sufficient training during the project, which contributed to the poor maintenance record of the project. The system for ordering and stocking of spare parts was also insufficient in the project.