

## Group 1: Smallholder Irrigation Rehabilitation and Expansion

Your sector team or project is adding a major component to your **Smallholder Agricultural Productivity and Market Access Program (SAPMA)**.

SAPMA is a 5-year, \$50mn program to boost smallholder agricultural productivity with improved varieties and cultivation practices, and to support cooperative processing & marketing. The program is considered critical to food security and to enhancing economic opportunities (and thus to supporting political stability) in key rural provinces. SAPMA is now 2 years into implementation.

SAPMA was designed with the intent that improved varieties and practices would be applied to existing smallholder plots. However, implementation experience to date shows that lack of irrigation infrastructure is a key barrier to smallholder productivity in the target rural provinces.

**An additional smallholder irrigation scheme component is therefore being added** to SAPMA. In the current phase, time and funding is sufficient only for a single pilot activity; however in the next SAPMA phase, replication and full roll-out is anticipated, resulting in the development of 8–10 schemes.

The pilot will REHABILITATE and EXPAND the **Bagamoyo Irrigation Development Project (BIDP)** scheme, now about 20 years old. This is a 200 Ha smallholder irrigation scheme (open-canal type), which draws from the Ruvu, a small perennial River.

Rehabilitation will include minimal re-leveling of the existing site and repair of an intake/pumping structure, 300m primary canal, and necessary secondary canals and control gates.

The primary canal has sufficient capacity to support extension of the scheme on 50Ha of adjacent land, and the project will undertake undertake this expansion, which will include leveling, and construction of secondary canals and control gates.

The access road and the cooperative's processing capacity will be upgraded under existing SAPMA components.

Beneficiary farmers will be members of an existing cooperative, as well as 3 extended families currently occupying the expansion land informally. (The project will construct replacement housing for these families; the cooperative has already secured their agreement to be relocated to a nearby village.) SAPMA will train farmers in cultivation techniques, including use of agricultural inputs, and provide technical extension services such as soil tests. In return farmers will "tithe" 10% "of production from their assigned plot(s) to the cooperative. Agricultural inputs and tillage will be provided on credit by the cooperative.

The pilot will also serve as a mentored capacity-building opportunity for the provincial irrigation development department of the agricultural ministry, who will participate in scheme development. Similarly, SAPMA will fund a supervising engineer whose duties will include mentoring and training the local contractors in good-practice irrigation construction techniques. This is intended to put in place local capacity that will result in accelerated, good-practice development of irrigation schemes in the province. SAPMA will operate the scheme for one year (two crop cycles are anticipated) then provide technical assistance to the cooperative and extension services to farmers for a second year

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## More about the Bagamoyo Irrigation Development Project.

The BIDP is real, though the SAPMA project and its plan to rehabilitate and expand the BIDP are not.

The BIDP is a cooperative union of 128 families. The project started in 1987–1990 with preparation, site clearing (the site was unforested grassland), surveying and preparation for 80 hectares of farm sites for training. Indigenous farmers who were cultivating rice along the Ruvu river were incorporated into the project. The project extracts irrigation water from the Ruvu river which also supplies water for household use and stocks in the area as well as being a source of fish.

By 1995, 100 farmers had been trained but had no land to cultivate. (The original 80ha of the project were for training only.) In response, the Tanzanian government started a pilot farming program with financial support from the Japanese government. 100 hectares of land were taken from the prison department, and 52 ha were allocated to 128 families each getting  $\frac{1}{4}$  hectare. Support under the project was given to local farmers who would receive training in appropriate wheat and rice cultivation techniques; receive farming inputs and technical services such as soil tests and advice on appropriate fertilizers to use, in exchange for 5 bags of rice. Trainee farmers worked on an acre of land each during the training producing about 35 bags on average. The scheme produced 15 new graduate farmers each year and would allocate to them land for cultivation in the “pilot” section of the land.

From 1997 support from the Japanese stopped but farmers continued to receive support from the Tanzanian government until the year 2000 when the cooperative took over. Without the financial and technical support, and in the face of declining yields, increasing crop diseases, farmers started using more and more fertilizers (TSP, DAP and Urea) and insecticides (Thionex, Actellic and Fungise.) Production costs soared. To keep costs low, families use more of the family labor rather than hired help. Since 1991, 250 farmers have been trained. These are from neighboring villages—Kaole, Matimba and Bagamoyo town. Support from the cooperative is in the form of inputs and irrigation, all at a fee of Tsh 100 000 per family per season.

Individual input into the farming is for transplanting, weeding, and harvesting. Each family produces 36 bags of rice, on average, per season translating to an income of Tsh 900 000 on average. Typically, rural dwellers earn less than US \$10 a month, so these rice farmers are among the high earners in their communities. Training still continues for new farmers at a fee of Tsh 200 000.

(Information accurate as of 2008)