

## MUS OPPORTUNITIES IN GHANA FINANCED BY THE USAID WA-WASH PROGRAM

### EXECUTIVE SUMMARY

In Ghana, the World Food Program estimates that 15% of the population are food insecure, a situation that is relatively common in the rural areas of Northern Ghana. The Upper West Region is one of the three poorest regions in Northern Ghana. The community members in this region experience malnutrition and food insecurity due to the high poverty levels among other factors. One of the goals of the USAID West Africa, Water, Sanitation, and Hygiene (USAID WA-WASH) Program is to improve food security in the intervention communities through the multiple-use water services (MUS) approach. The multiple-use water services (MUS) is an alternative model for water service provision in developing countries that involves planning, financing and management of integrated water services for domestic and productive uses (drinking, sanitation, health, agriculture and livelihoods). Existing water provision approaches focus on the water supply for single use for example, drinking water or irrigation, thus, leading to sustainability problems and conflicts due to the lack of planning for multiple uses. Capital investment in MUS is often greater but the long-term returns and benefits offer significant value to the communities and development partners. It is estimated that 70% of the rural populations have under-utilized resources that could be unlocked by access to additional water based on the MUS approach. The goal of the MUS approach is to introduce economically and technically viable multiple-use of water services that enable poor rural households to achieve sustainable and equitable improvement in access to water, health, hygiene, food security, and income.

The USAID WA-WASH Program through the MUS approach supports communities on issues related to hygiene, sanitation, income generation, and development of supply chains with the idea of linking the technology providers and customers (households or communities). The support include use of local appropriate strategies that generate incomes from productive water use activities. More specifically, the Program supported two agricultural activities to increase annual incomes, enhance food security, and diversify livelihoods of poor rural households. The two activities are Moringa and cassava production. The Program in collaboration with the intervention community members selected the production of Moringa and cassava as the MUS opportunities because of their multi-purpose functions to improve nutrition and health, boost household income levels, and enhance food security. Moringa production involves cultivation of Moringa trees in a plantation, along the edges of the farms, and in fields where it could be intercropped with cereals. Cassava is produced as a single stand plantation or intercropped with legumes and cereals in fields. In addition to cassava and Moringa production, the Program provided technical support to producers of vegetables, legumes, and cereals because of the importance of these existing crops.

The production of Moringa in the intervention area is not new as the community members have been planting the local Moringa trees around the homesteads since the 1970s. However, the production was at a small-scale for example one or two trees per household as the community members did not know its nutritional value. The Program introduced the large-scale production of the improved Moringa variety (PKM1). Four Livelihood groups were supported with technical know-how on production and were provided with 1,390 Moringa seedlings. The Program also supported the production of Moringa among individual farmers with a total of 726 Moringa seedlings. The observations made in the local markets indicate a high demand for Moringa leaves for local use in soups and other local dishes. Moringa leaves are also sold in the local markets as fresh green leaves and cooked (molded into small balls). Moringa production has potential for innovative value addition into soaps, tea, shampoo, body creams, and skin creams. It is expected that in the long-term, increased cultivation of Moringa will result in improved nutrition and income levels for households. In addition, increased production levels of Moringa will lead to value addition and supply the market demand leading to increased incomes among the producers.

The production of cassava in the intervention communities is a relatively new venture. Dried cassava tubers, cassava leaves, processed cassava into *Gari* and *Tapioca* are important food supplements that are brought into the region from Southern Ghana. The Program introduced cassava production in seven livelihood groups to produce seed stem for the community at-large. Five livelihood groups received technical and material support of 15,000 cassava cuttings planted on a total land area of 4.3 acres in five villages. The program expects that cassava will serve as one of the main food crops because most households rely on cassava products to supplement the staple foods.

Activities to implement the MUS opportunities included mobilizing producers into groups, developing work plans, and training producers on record keeping on production costs, yields and incomes, and proper use of pesticides. Initially, land ownership among women was a challenge in the intervention area because women were discouraged to produce cassava at commercial levels. Mobilizing the community members to form livelihood groups and sensitizing them on issues related to gender has improved women access to land. As a result, the traditional village leaders offered land to women groups for the livelihood activities. The women livelihoods groups have enabled the members to access land and to contribute to food security at the local levels.

The program supported seven livelihood groups in Moringa, cassava and market gardening by building the capacity of these groups on value addition of Moringa and Cassava products. In the short-term, the Program has improved cassava and Moringa production levels in the intervention communities. However accelerated efforts to scale-up the production beyond the livelihood groups to the community and the region at-large are necessary for the activities to positively impact food security in the Upper West region of Ghana.

*The full report is available (in English) upon request via our website. For more details about our program activities and other reports please visit <http://wawash.fiu.edu/>*

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