FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

SCALING UP FERTILIZER DEEP PLACEMENT AND MICRO DOSING TECHNOLOGIES IN MALI

Mali is among the 12 African focus countries for the U.S Government's Feed the Future (FTF) initiative, which seeks to "develop sustainable agricultural systems utilizing technology and knowledge, and build institutional capacity that will spur a vibrant private sector–led approach to achieve economic and food security."

The International Fertilizer Development Center (IFDC) is implementing the USAID FTF Fertilizer Deep-Placement Micro-Dosing (FDP MD) project to increase cereal and vegetable crop productivity through the promotion and dissemination of fertilizer deep placement and micro-dosing, two innovative fertilizer-based technologies for targeted commodities (rice, millet, sorghum, and vegetables) in the FTF intervention zones in Mali.

Supporting FTF Vison and Approach

The strategic objective of scaling up fertilizer deep placement and micro-dosing technologies in Mali is "to increase cereal and vegetable crop productivity through the promotion and dissemination of innovative fertilizer-based technologies for targeted commodities in the FTF intervention zones of Mopti, Segou, Sikasso, and Timbuktu, while improving resource-poor farmers' access to quality and nutritious food in Mali."

Farmer applying micro-dosing technology. Photo credit: IFDC

The project expects that improvements in cereal productivity in Mali would yield widespread benefits to cereal producers through increased incomes, to consumers from increased domestic supplies of cereal grains at better prices, and to the government from reduced dependency on costly cereal imports. Besides the cereal-related benefits, improving farming and fertilizer-use practices in vegetable crops will generate incomes to farmers, especially women, in addition to contributing to improving the nutritional diet and health of consumers, as well as farmers' households and youth in particular.

Saving Money and the Environment

The typical method of fertilizer application in Africa is to hand broadcast the fertilizer. This process of surface application of fertilizer is the major contributor to the extremely low efficiency factor in crop uptake of applied nitrogen. In dollar terms, when a farmer pays U.S. $45 for a bag (50 kg) of fertilizer, about $30 of the nutrient value is lost through these "urea loss" mechanisms. From an environmental perspective, many of the urea compounds that are released by these processes disrupt natural ecosystems, impair water quality, and contribute to climate change. These innovative technologies help to save money and environment.

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Driving the Diffusion of Technologies by Private Sector

The project is using the private sector as a key player in expanding awareness and popularity of the fertilizer technologies. The staff of the project was quick to understand that the rapid and widespread adoption of the innovative fertilizer technologies were more likely to succeed through local implementation partners' contracts with private companies. The capacity of the private sector was built to provide information and training on the fertilizer technologies to gradually assume the role of national extension agents.

Snapshot

- Over the lifetime of the project, IFDC has facilitated the investment of $82,500 by Private sector
- Farmers were confident in these technologies and 453 jobs are created in the rural area.
- Timbuktu has been added, as area of the intervention zone of the project. This will help to secure young people

Contacting IFDC

Fertilizer Deep-Placement Micro-Dosing (FDP MD) program is implemented by International Fertilizer Development Center (IFDC). They can be reached at ifdcmali@ifdc.org, as well as via their website at www.ifdc.org.