

## **Generating Market-Based Systems for Integrated Soil Fertility Management**

### **1. THE CONCEPT**

Small farmers in Africa will have to use more commercial fertilizer if they are to increase their production and incomes. One hypothesis holds that the demand for fertilizer by these small, low-resource farmers is attenuated because most *do not know how to get a profitable response to fertilizer under their local conditions*. This Solution would harness the power of private markets to generate a sustainable system of developing and delivering that information to individual smallholders.

### **2. RATIONALE AND EVIDENCE THE PROJECT CAN BE SUCCESSFUL**

The principles of combining commercial inorganic fertilizer with organic materials or in grain-legume rotations or intercrops are well known, and researchers have demonstrated time and again that the principles can be adapted to a wide diversity of conditions. No widely successful method for scaling-up that knowledge to thousands of local situations has emerged, however, in part because there is limited opportunity to make money by adapting the principles to local situations. This note proposes a system that would be initiated with donor funds but would be self-sustaining (or self-destructive).

### **3. EXPECTED BENEFITS OF THE PROJECT INCLUDING COMMENTS ON SUSTAINABILITY AND SCALE**

The program would only be made available in countries or in locations within countries where the fertilizer and output markets function relatively well and therefore would be a good complement to countries which begin a national fertilizer facility together with the envisioned Africa Fertilizer Facility.

### **4. HOW THE PROJECT WILL TARGET THE NEEDS AND BE OF SPECIFIC BENEFIT TO WOMEN SMALLHOLDERS**

It is proposed that a farm-to-nation integrated soil fertility management system be established consisting of: a national ISFM unit, local ISFM organizations, and village-level farmer groups. The national ISFM unit would do contract-based business deals with local units and with international organizations like TSBF, IFPRI, SG2000, etc. The first responsibility of the national ISFM unit would be to do contract-based business deals with NGOs operating at the farm level to enable those NGOs to organize local ISFM units and devise ways to link those local units to village-level farmer groups. The specific nature of all three of the new organizations would have to be carefully designed to suit conditions in each country.

Foundation funds will be used to provide each unit with initial start-up capital but the basic operating principle will be the sale and purchase of goods and services to units 'above' and 'below' each unit in the system. For example, the national ISFM unit would contract with TSBF to purchase technical integrated soil management advice, with IFPRI to purchase policy advice, with IFDC for soil testing kits, with a cell-phone company for connectivity services to its members and clients, with seed sellers to purchase seeds, and with local NGO units to sell them a program for ISFM.

The program sold by the national ISFM unit to local units might consist of:

- training of local ISFM agents in basic agronomy, soil testing, organizational methods, etc. to empower them for direct interaction with farmers,
- access to a cell-phone-based market information system,
- fertilizer quality and soil testing services and supplies,
- design of adaptive ISFM trials in the “mother-baby” mode,
- sale of improved staple food crop and legume seeds for adaptive trials
- (perhaps) a weather-based insurance opportunity,
- guaranteed co-location of an agro-dealer with local ISFM units.

Local units, in turn would sell farmers a package of program elements, perhaps:

- a cell-phone-based market price information system,
- a set (or sets) of mother-baby trials in their village,
- access to an agro-dealer on preferred terms,
- results of quality tests on fertilizer,
- results of seed variety evaluations,
- seeds of well-adapted grain and legume crops
- (perhaps) a basic weather-based insurance policy.

Initiating units would receive \$50 per participating farmer, to be provided as farm vouchers directly to village level units and their participating farmers who would “spend” the vouchers purchasing the above services. A small cash amount would also be provided, say \$10 per farmer. The units providing the services would either use the vouchers or redeem them for cash to purchase services from units up the line.

## **5. PROJECTED COSTS OF THE PROJECT**

A detailed business plan will be developed prior to implementation in a country with prices for services set at realistic levels to enable units to continue operations and farmers who make effective use of the technologies to make money. Potential partners/grantees would be consulted before the business plan and prices were finalized. The Foundation would provide 100% of the needed operating funds for a first year unit; 75% in the second year, 30% in the third year, and thereafter no funds (or some such schedule). For a program covering 100,000, foundation investment would be \$5,000,000 the first year and declining thereafter. Units unable to generate a sufficient flow of revenue to cover their costs will be allowed to go bankrupt. Where a unit proposes significant expansion Foundation funds might be made available for such expansion after the third year of a unit’s successful operation.

## **6. MEASURES OF SUCCESS**

Success would be reflected in on-going business operations and failure would be self-evident. A system of monitoring farmer participants would gather evidence on the impact on their incomes and expenditures.

RFPs would be issued to organizations with the potential to become national ISFM units. They would have to have a functioning business, presence on the ground and 3 years experience in at least one country in Africa, experience with fertilizer trials or ISFM

trials, and resident staff qualified to deal with ISFM. Among the organizations that might be invited to respond to the RFP are: FIPS-Africa, NASFEM in Malawi, SACRED in Kenya, ICRAF, Sasakawa Africa, Catholic Relief, and World Vision.

**7. RISKS** [Please articulate the risks that could inhibit the success of the project.]