



The SMAP Kenya Project

Boosting Smallholder Farmers Crop Yields
through Mutual Learning on Smart P-Fertilizing
(January 2014-December 2014)

A joint project of CGA, University of Eldoret, University of Egerton, Local Farmers, Phosphorus Traders and Financial Institutions

Eldoret/Nairobi 2013

A project launched by Global TraPs with sponsoring of the Syngenta Foundation (Switzerland) and other Funders

WHAT IS THE SMAP KENYA PROJECT DOING

The SMAP (**S**mallholder Farmers **A**ccess to **P**hosphorus) project helps smallholder farmers to profitably and sustainably access and utilize phosphorus fertilizer. To achieve this, farmers will interact and learn with other key actors in the value chain such as traders, bankers, governmental representatives. A special feature of this project is that scientist from different disciplines and universities will collaborate with practitioners to address problems associated with inefficient access and inappropriate use of P-fertilizers. This special collaboration between science and practice, where scientists start from the real world problem and involve the knowledge from stakeholders is called transdisciplinarity.

After one-year preparation by the project team (see Figure 1), the next stage of the project begins in January 2014. The project will focus in particular smallholder farmers who have farms with a size between 2 and 12 acres. Herewith, we involve farmers and traders, in particular those who participated in the SMAP Kickoff meeting in April 2013, and those who want to improve their farming practices. We also want to include some traders to find out how they may offer the right type and right amount of fertilizer in the right place and right time.

Since the purchase of fertilizer is linked to access to finance, the project also involves financial institutions to discuss what alternative ways of payment may help the farmer to buy the needed amount in time. The SMAP project discusses and explores such options as partial prepayment, post-payment, instalment, loans from financial institutions.

WHAT ARE THE BENEFITS OF PARTICIPATING?

The project members will participate in discussions and meetings with other farmers and experts. Here, they will learn ways of improving their farming practices for improved crop yields.

Each participating farmer will have two meetings with scientist in which they jointly elaborate what can be improved in fertilization or access (buying) the needed fertilizer. Here, we also want to find out what way of soil testing and soil recommendations (from independent institutions) may help to increase the yield and livelihood.

The participating traders will also have meetings with members of the project team to elaborate how the transfer from manufacturers of P fertilizers to farmers may be improved.

Finally, we will evaluate whether those who participated in the program really improve their yields. This will be done by comparing their improved farming activities with those of other farmers who apply the common farm practice. The latter will be included in the discussions of the SMAP project. They will also participate in the improved farming activities in the following season.

In the course of participation, the farmers will learn how to calculate expenditures on fertilizers and other gains from yields arising from improved farming activities.

In addition, the participants will become member of the SMAP network that is a group of people and representatives of institutions who are interested in improving smallholder farmers' access and use of P fertilizers.

WHAT I HAVE TO DO?

If you are interested, if you have any questions or if you have already made the decision to participate, please contact either CGA or the SMAP Project Managers (Chris, Arusey or Mark, see their contact in the last page).

We will then invite you to a Planning Meeting in Eldoret, Mid-January 2014. Here, the project goals will be explained in detail. As you may see from Figure 1, farmers and traders will also have the opportunity to identify spokes persons. These persons will actively participate in the SMAP project planning and may bring in special interests and aspects that may have been overlooked by the project team.

You are expected to cooperate throughout the whole project duration. The SMAP project team will guarantee that all information which you will provide about your farming practices will be kept confidentially.

Please note that all data that you provide should help yourself, your business, the local universities, developmental institutions, and policy makers in developing knowledge and decisions on sustainable farming in Kenya.

SOME INFORMATION ABOUT THE GLOBAL TRAPS PROJECT

Global TraPs (*Transdisciplinary Processes for Sustainable Phosphorus Management*; 2010–2015) is an international multistakeholder project aimed at utilizing the current and new knowledge on phosphorus management. It brings together scientist of various related disciplines, P fertilizer producers, traders, users and facilitators such as extension and development organization. All these players have major interest on ensuring phosphorus value chain is efficient through future use in sustainable manner, improving food security and environmental quality.

Global Traps in collaboration with some P fertilizer stakeholders is conducting a case study in Kenya, Uasin Gishu county applying the transdisciplinary process to arrive at scientifically sound, environmentally friendly, economically viable and socially acceptable P use for improved crop yields and livelihoods.

Below is an organization structure showing the participating institutions and personnel.

Science		Practice
Project leaders		
Dr Rhoda Birech, Ruth Njoroge		Anthony Kioko (CGA)
Steering committee		
Prof. Roland Scholz , Prof. Olaf Weber, , Dr. Debbie Alaf		Anthony Kioko Executive/ Project Leader
SMAP Project managers		
Mrs Arusey Jebet, Mr. Mark Korir		Mr. Christopher Mutisya
Subsystems	Science group	Practice group
Farmer group	Ruth Njoroge (responsible), Dr. Rhoda Birech, Mark Korir, Chebet Arusey and N.N	2-4 farmers spokesperson, N.N., N.N.
Trader group	Dr. Rhoda Birech(responsible), Ruth njoroge, Mark Korir, Chebet Arusey and N.N	2-3 Traders spokes person, Christopher Mutisya (CGA)
Banks (Financial institutions)	Prof. Dr. Olaf Weber and Prof. Dr. Roland Scholz,	Christopher Mutisya
Interdisciplinary Science clusters		
Socio economic group	Dr. Rhoda Birech (responsible) and Mark Korir	
Soil-science group	Ruth Njoroge(responsible) and Arusey Jebet	

Figure 1: Organizational Chart of the SMAP Kenya project

WHAT ARE THE NEXT STEPS

- Step 1: Planning Meeting January 2014
- Step 2: Building membership for farmers, traders and financial institutions
- Step 3: Two individual interviews which each farmer/trader; collaboration with banks
- Step 4: Defining adopted farming practice for the 2014 season (and selling options on the side of the traders; communicating adopted lending practice for fertilizers)
- Step 5: Applying the adopted farming practices (and selling options)
- Step 6: Monitoring the season
- Step 7: Evaluation

The project team collaborates with the following international partners

- Prof. Dr. Roland W. Scholz, Global TraPs Science Leader Fraunhofer ISC, Project Group Materials Recycling and Resource Strategies IWKS, 63755 Alzenau, Germany, phone 0041 79422 4401; scholz@env.ethz.ch
- Prof. Olaf Weber, Institute of Sustainable Energy, University of Waterloo, Canada. CHP 3611, 200 University Avenue West Waterloo ON Canada N2L 3G1. Phone: 519-888-4618. [Email: oweber@uwaterloo.ca](mailto:oweber@uwaterloo.ca)
- Dr. Debbie Hellums, International Fertilizer Development Centre, Muscle Shoals, USA, AL. Practice Manager Global TraPs (Soil scientist) [Email: dhellums@ifdc.org](mailto:dhellums@ifdc.org)

Contacts of the personnel involved in the SMAP Kenya project

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- Mr. Mark Korir, Department of Peace, Security and Social Science, Egerton University. Department of Soil Science, University of Eldoret P.O Box 1125 , Eldoret Tel: 254- 20- 2123312. [Email: markkorir74@](mailto:markkorir74@)