



**Implementation Plan for collaboration between
N2Africa and the Soil Health and Market Access
Programs of the Alliance for a Green Revolution in
Africa (AGRA) plan**

Milestone reference number: 1.2.8

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Submission date: 31-10-2010

N2Africa

**Putting nitrogen fixation to work
for smallholder farmers in Africa**



N2Africa is a project funded by The Bill & Melinda Gates Foundation by a grant to Plant Production Systems, Wageningen University who lead the project together with CIAT-TSBF, IITA and many partners in the Democratic Republic of Congo, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda and Zimbabwe.

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Nteranya, S., Koala, S., Dashiell, K., Giller, K., 2010. Implementation Plan for collaboration between N2Africa and the Soil Health and Market Access Programs of the Alliance for a Green Revolution in Africa (AGRA) plan, www.N2Africa.org, 26 pp.



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This publication has been funded by the Bill & Melinda Gates Foundation through a grant to Wageningen University entitled "Putting nitrogen fixation to work for smallholder farmers in Africa". Its content does not represent the official position of Bill & Melinda Gates Foundation, Wageningen University or any of the other partner organisations within the project and is entirely the responsibility of the authors.

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1 Background

As outlined in the N2Africa project proposal approved by the Bill and Melinda Gates Foundation (BMGF) in September 2009, we envisage that at the end of the four year project N2Africa will directly empower 225,000 African smallholder farmers to use state-of-the-art legume and rhizobial inoculants technologies to triple the inputs of free atmospheric nitrogen by biological nitrogen fixation, thereby improving crop and livestock productivity, human nutrition and farm income, while enhancing soil health. N2Africa will work in eight African Countries, Ghana, Nigeria, DR Congo, Rwanda, Kenya, Malawi, Mozambique and Zimbabwe. To reach this noble goal the project will build on existing initiatives and form strategic partnerships with a variety of stakeholders along the value chain i.e. entire resources-to-consumption continuum in each country. Given that the goals of N2Africa and the Alliance for a Green Revolution in Africa (AGRA) overlap, program officers and the grantees of the Soil Health, Market Access and Seed System Programs of (AGRA) are among the important stakeholders that N2Africa will collaborate with.

2 Objectives

This plan describes the different objectives and identifies those of common interest where synergies and cooperation are possible between the N2Africa and AGRA programs and may lead to higher impact in the targeted countries. It specifically addresses Milestone 1.2.7 - A joint action plan will be developed in partnership with AGRA and submitted to BMGF for approval by Month 6 of the project.

2.1 N2Africa Objectives:

Objective 1: Establish a baseline of the current status of BNF, identify farm enterprises and niches for targeting N₂-fixing legumes in the impact zones, and establish mechanisms for Monitoring and Evaluation (M&E) and impact assessment.

Objective 2: Identify and field test multi-purpose legumes (providing food, animal feed, structural materials and high quality residues) for enhanced BNF and integrate improved varieties into farming systems.

Objective 3: Collect and characterize superior rhizobia strains for enhanced BNF and develop inoculum production capacity in sub-Saharan Africa through collaboration with private sector partners.

Objective 4: Deliver legumes, inoculants and associated BNF-enhancing technologies to farmers throughout sub-Saharan Africa.

Objective 5: Develop and strengthen capacity for BNF research, technology development, and application.

N2Africa will implement these objectives directly in the field through a consortium of NARES, NGOS and farmers associations working closely with CIAT-TSBF, IITA and Wageningen University.



2.2 AGRA Soil Health Programme Objectives:

- I. Increase farmers' financial and physical access to locally appropriate soil nutrients and fertilizers,
- II. Create sustainable, locally effective systems for developing and disseminating ISFM technology packages that are widely adopted by farmers and
- III. Create a national policy environment for investment in fertilizer & ISFM, alongside AGRA's Policy Program.

The training of soil scientists and agronomists (identified as the fourth leverage point) is contained as a sub-activity within Objective 2 on the development and adoption of ISFM technology packages. AGRA will implement the strategy through grant-making for national-scale and regional-scale activities and policy advocacy.

3 Strategy for collaboration

N2Africa will use different strategies and mechanisms depending on the objectives of the different AGRA programs and the degree of country overlap.

3.1 Joint geographical areas, impact zones and country selection

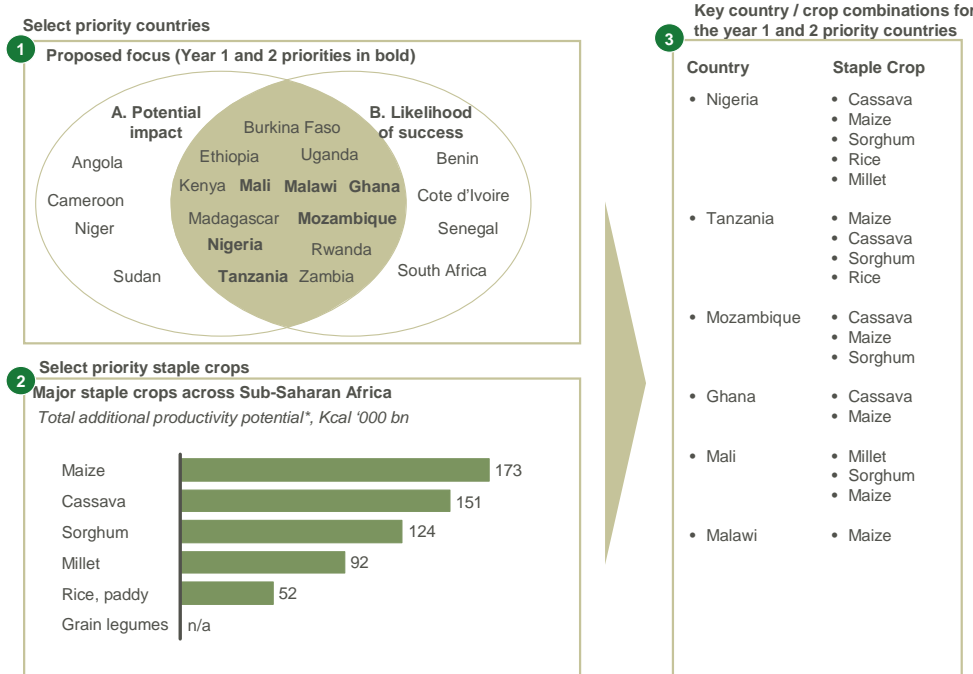
N2Africa is implemented in three impact zones in major AEZs with different cropping systems and target interventions (**Table 1**). Within each impact zone several action and satellite sites are selected as areas for intense activities for the project. Action sites are geographical areas encompassing a community or a limited cluster of communities in which the field activities related to BNF development (legume and inoculant technology identification, evaluation, and adaptation). Action sites are selected to reflect contrasts in specific key variables, presumed to substantially influence the nature of best-bet BNF technologies and their mode of dissemination. Once effective products and effective interventions are identified, satellite sites are established through partner networks. Satellite sites are similar in terms of geographical area, population, and other general characteristics as action sites but more numerous. These sites are used to evaluate best-bet options developed in the action sites under leadership of associate partners (NGOs and extension). We hope that AGRA grantees will be encouraged to select sites based on the potential for synergies with N2Africa.

AGRA countries: Within country-breadbasket transformations, the seed, soil, markets, and policy programs will together seek out the highest potential solutions to value-chain problems, fund their demonstration, and engage partners to take them to scale. Within high potential countries where AGRA is not pursuing a country breadbasket approach, greater efforts will be made for joint programming and some of this has started already. AGRA is preparing a short list of country-breadbasket areas where it believes the concentrated programs will have the highest pay-off. The first step in this is to identify high potential countries, and the second is to assess the highest potential staple crops within these countries. AGRA has identified 13 countries based on two sets of criteria (See exhibit 9). Several N2Africa targeted countries i.e. Kenya, Rwanda, Nigeria, Ghana, Mozambique and Malawi are amongst the breadbasket countries that are chosen for action in year 1 and 2 by AGRA.



Figure 1: Country Selection based on potential impact and likelihood of success:

Exhibit 9: AGRA will select a number of countries based on potential impact and likelihood of success



Source: UNStat (2007 data); FAOSTAT 2007; Team analysis



Table 1: Impact zones, target countries and sites, overlap with AGRA Soil Health Program including the breadbaskets countries and dissemination partners.

Impact Zone	Target countries <i>[Impact figures]</i>	Specific areas for SHP AGRA	Specific areas for N2Africa	SHP target crops	Dissemination partners
West-African savanna <i>[soybean-maize rotation and cowpea/groundnut-maize intercropping]</i>	Ghana <i>[37,500 households]</i>	Northern Region	- Upper East, Upper West and Northern Regions	Maize, cowpea and soybean. Agro forestry interventions are also promoted.	- Ministry of Food and Agriculture, UrbNet, Association of Church Development Programmes (ACDEP), and UpperWestAgro.
	Nigeria <i>[37,500 households]</i>	Zaria	Kaduna and Kano States	Maize, sorghum, cowpeas and soybeans. Agroforestry interventions are also promoted.	Agricultural Development Projects (ADPs) and the Local Government (LGAs) of both Kaduna and Kano States, Sasakawa Global 2000
East/Central Africa mid-altitudes <i>[bean-maize or cassava intercropping; soybean/bean-maize rotations]</i>	Kenya <i>[37,500 households]</i>	Western Kenya (Kakamega, Siaya, Busia and Teso districts) <i>[60000 households]</i> Eastern Kenya (Embu, Mbeere and Machakos) <i>[60000 households]</i>	- Lake Victoria Basin (Migori, Siaya, Kisumu rural, Busia,, Butere, Mumias, Kakamega, Vihiga, Bondo, Nyando, Gucha, Bungoma, Teso)	Maize, beans cowpeas, groundnuts and soybean. Agroforestry interventions are also promoted.	Hagonglo CBO, SCC-Agroforestry Project, Kleen Homes & Gardens, Bungoma Small-Scale Farmers Forum, Butere Soybean Farmers Federation (BSFF), MUDIFESO, Project URIRI Farmers Cooperative Ltd CYEEP, Resource Projects Kenya, Kenya Soybean Farmers Association, Butula Farmer Field School, ARDAP
	Rwanda <i>[18,750 households]</i>	3 districts (Nyamagabe, Nyaruguru, and Gisagara) <i>[30000 households]</i>	Kibungo, Umutara, Ruhengeri, Bugesera,	Maize, sorghum, cassava, grain legumes (soybeans and beans) and sweet potato. Agroforestry interventions are also	- Consultative Council of Women (COCOF), Sustainable Rural



				promoted.	Development (DRD)
	East DR Congo [18,750 households]	None	Sud-Kivu province (Walungu, Kalehe, Kabare, Katana, Kamayola)	None	- Service and Capacity of Self Promotion of Women in South Kivu (SARCAF), Program Support to Sustainable Development (PAD) and PLATFORM DIOBASS
Southern Africa savannas [maize-pigeon pea intercrops; maize-soybean/groundnut rotations; bean-maize intercrops]	Malawi, [25,000 households]	Mchinji district Central and Northern region [30000 households]	Lilongwe, Ntcheu, Dowa, Salima, Mchinji, Dedza	Maize, beans, pigeonpea and groundnuts. soybean and bambara nuts. Agroforestry interventions are also promoted.	- Department of Agricultural Extension Services, and CHDI
	Zimbabwe [25,000 households]	None	Mashonaland East, Central and West, Manicaland Provinces	None	- University of Zimbabwe, Soil Fertility Consortium for Southern Africa. CLUSA International, Cluster Agricultural Development Services, Community, Technology Development Trust, Zimbabwe National Soya Bean Commodity Association
	Mozambique [25,000 households]	3 districts in Nampula and Zambezia Provinces [30000 households]	Nampula, Zamezia, Tete Manica and Niassa	Maize and soybeans. Agroforestry interventions are also promoted.	- IIAM, Techserve, and IKURU

3.2 Thematic areas and mechanisms of collaboration

Many of the projects granted by the Soil Health Program of AGRA, focus on the six major grain legumes – soybean, common bean, cowpea, groundnut, pigeonpea, and chickpea. The first four of them overlap directly with N2Africa and we will ensure that N2Africa supports the work of AGRA grantees wherever and whenever possible. Many AGRA projects have similar goals as N2Africa i.e. to select new grain legume varieties with potential high yields and BNF, nutritive and marketable quality and integrate them into the cropping system (rotation or relay-cropping) with the aim to obtain residual N benefits for subsequent crops.



As the AGRA SHP has recently funded projects with many of the national collaborators for N2Africa in the countries we will invite AGRA SHP grantees to planning workshops in each country. N2Africa and SHP grantees will be able to exchange key learnings and technologies. Given the aims and objectives of the country projects there will be examples where it is beneficial to seek direct overlap in target areas and other cases where a greater impact of the work can be achieved by working in complementary areas to achieve a wider impact. The SHP of AGRA believes that the proposed activities in the N2Africa project would complement its aims to increase the productivity and production of tropical legumes and the incomes of poor farmers in sub-Saharan Africa. They are fully committed to work closely with this project.

AGRA is forming a National Soil Health Consortium in each of their countries led by one of the NARS partners. They have already started in Kenya, Mozambique, Rwanda, Ghana, Nigeria and Malawi. Any project working on soil health is invited to participate.

AfNet is a network led by TSBF-CIAT that assists in backstopping these National Soil Health Consortia. The Leaders of the SHP and AfNet have developed a work plan that is provided in Appendix 1. Dr Saidou Koala is both the Coordinator of AfNet and the Leader of the Capacity Building Objective in N2Africa. This dual role that he has will help ensure good communication between the AGRA Soil Health projects and N2Africa. Table 2 list the SHP projects that are in the N2Africa Countries. Also, a new project for Mozambique has been approved that is not listed in Table 2.



Table 2: AGRA – SHP Projects in the N2Africa Countries that will have AfNet backstopping

No.	Organization Project Title	Name	Country	Target farmers	Country	Specific site	country-region	Duration (yrs)
1.	Kenya Agricultural Research Institute	Up scaling the use of agricultural lime to enhance soil health and crop yields in acid soils of western Kenya	Kenya	50000	Kenya	Kakamega	western Kenya	3
2.	International Development Rwanda Development	Fertilizer Center Agrodealer	Rwanda	400	Rwanda		North, South, West, East and Kigali regions, and peri-urban areas	3
3.	Appropriate Development Program	Rural Agriculture Program	Kenya	30000	Kenya	Teso, Siaya and Busia	western Kenya	3
4.	Institut des Sciences Agronomiques du Rwanda	Improving crop yields through wide scale promotion of lime and other ISFM technologies in the acidic soils of Rwanda	Rwanda	20000	Rwanda			3
5.	Clinton Hunter Development Initiative	Improving Soil health in Malawi through Scaled up soybean production and marketing	Malawi	30000	Malawi	Lilongwe	Mchinji, Dowa, and Kasungu districts	3



6.	Kenyatta University Enhancing Productivity and Market Development of Soybeans and Climbing Beans in Central Kenya	Kenya	60000	Kenya			
7.	Kenyatta University MSc Training programme in Integrated Soil Fertility Management	Kenya	0	Kenya	Kenyatta University	Nairobi	2
8.	Kenya Agricultural Research Institute Improving Smallholder Maize Productivity in Western Kenya through Integrated Soil Fertility Management	Kenya	13500	Kenya	KARI_Kaka mega	western Kenya	3
9.	Clinton Hunter Development Initiative Improving soil health in Eastern Rwanda through scaling up of soybean production and marketing.	Rwanda	20000	Rwanda			3
10.	National Smallholder Farmers' Association of Malawi Increasing benefits of smallholder farmers from improved soil fertility through integration of pigeon peas, groundnuts and conservation agriculture in maize production systems of Malawi	Malawi	30000	Malawi	Mchinji, Kasungu and Salima districts	Central region	3



11.	Institut des Sciences Agronomiques du Rwanda Integrating agroforestry legume species and agronomic innovations in climbing beans production system for enhanced soil health, productivity and commercialization of beans by smallholder farmers in Rwanda	20000	Rwanda			3
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3.3 Specific topics of mutual interest

N2Africa has a unique focus on improvement of nitrogen fixation through rhizobial inoculants, and access to the best expertise in this area within Africa and throughout the world. N2Africa will provide support and training in this area to AGRA grantees, as well as the wealth of experience across different countries in legume agronomy and farming systems approaches. Dr Bashir Jama of the Soil Health Program is keen to stimulate private sector development of inoculant production as well as combining this with sound management practices to achieve impact at scale. The AGRA SHP grantees are national experts in soil health and legume agronomy who will be able to provide strong local backing for N2Africa where appropriate.

3.3.1 Strengthen Fertilizer Wholesalers and Agro-dealers.

AGRA will work to increase the consumption and distribution of appropriate fertilizers to smallholder farmers by supporting efficient wholesale, retail, and cooperative networks. Appropriate fertilizers will be formulated through the creation of specific blends, small packaging, quality certification, and farmer trials which increase agronomic efficiency of crops. The SHP objective is to catalyze expansion of wholesale and retail fertilizer distribution channels at national and local levels to reach poor farmers with appropriate products. There is a clear opportunity to link the delivery and dissemination of the different legumes species and associated rhizobial inoculants where target areas overlap. A specific example of how we can seek synergies is through collaboration with SHP grantees such as Farm Input Promotions Africa Ltd. (FIPS) to expand on the work B. Vanlauwe has been doing in collaboration with P. Seward on Mavuno fertilizer in Kenya, Rwanda and DR Congo. We will seek opportunities to work with other groups such as CNFA in Malawi, Mozambique and IFDC in Ghana and Nigeria. This project will create a public-private partnership linking fertilizer companies, traders, agro-dealers, extension agents and farmers in an effort to resolve constraints to ISFM adoption.

3.3.2 Linkages with the AGRA Market Access Program

Mrs. Ann Mbabu who leads the AGRA Market Access Program is a member of the steering committee of N2Africa. AGRA is in 13 countries but will invest 40% of their resources in Mozambique, Tanzania, Ghana and Mali. They are partnering with the World Bank, African Development Bank (ADB) and the host Governments to achieve two objectives: food security and poverty elimination. The Ghana program is for the same three regions that N2Africa works in - Northern, Upper East and Upper West. IFDC (Kofi Debra, IFDC, Ghana) is the lead grantee for this project and Savanna Farmers Marketing Company is a partner in the grant with IFDC. The project will concentrate on soybean, sorghum, maize and groundnuts. In Mozambique the grant through Bashir Jama is working in Manica, Sofala and Tete.

3.4 Capacity building and training

3.4.1 Training through the AGRA SHP

The SHP education sub-program seeks to work with national governments to invest in African extension workers, technicians and scientists to facilitate the development and extension of new and existing ISFM technology packages. The overall objective is to enhance human capital for soil health research and dissemination. The SHP also aims to build capacity of training institutions through grant support for curriculum development and infrastructure. The SHP has the following training activities:

1. Vocational training: Short-term training of extension agents / field workers to update their research and extension skills and knowledge; Training of lab technicians to strengthen the human capital inputs into the soil testing and ISFM technology package research processes. N2Africa has already developed training courses and the all the materials needed for three courses: a two week training for microbiology laboratory technicians, a one week Training of the Trainers on Grain Legume Production, and a one or two day training for lead farmers in



grain legume production. These materials are freely available to any of the AGRA SHP projects.

2. Degree training: Ph.D. training of soil scientists, agronomists and other soil health related disciplines at Sokoine University, Morogoro, Tanzania as well as training of a small number of scientists outside Africa. M.Sc. training of soil scientists, agronomists and other soil health related disciplines at selected African universities.

3.4.2 Joint training through AfNet

AfNet coordinates training within N2Africa and has received a grant from the AGRA SHP on “Strengthening and sustaining the African researchers capacity to generate, document, synthesize, share and apply knowledge and skills in Integrated Soil Fertility Management (ISFM) practices, fertilizer recommendations and cropping systems management in order to improve the sustainability of food production and the livelihoods of smallholder farmers in sub-Saharan Africa”. This is the same project that is backstopping the National Soil Health Consortia presented in section 3.2 above.

4 Moving the collaboration forward

During the proposal preparation phase of N2Africa, we proposed a number of areas in which we could support AGRA. These were:

Project leaders from SHP, Market Access and Monitoring and Evaluation of AGRA and N2Africa will develop a joint implementation plan of the project and representatives will attend each others’ annual planning meetings to ensure streamlining of activities.

N2Africa will provide to SHP a protocol of methods for Inoculation and agronomic practices conditions to be used within SHP to ensure optimal selection for N₂-fixing ability (without N fertilizer, rhizobial inoculation, adequate P availability etc).

N2Africa will provide to SHP inoculants of elite rhizobial strains for use in legume scaling up activities

It is now essential that links are forged as the various projects move forwards. To date a number of meetings have taken place between the N2Africa project leader, Members of the N2Africa steering committee and Program Officers from AGRA. These meetings have largely been to exchange information. How we will forge links with the various grantees of the AGRA SHP depends on their interest and commitment, and on us gaining the support of AGRA to do this. N2Africa can readily be seen as a competitor by the AGRA grantees rather than a supportive organization. Our plan of action to ensure maximum synergy needs to include the AGRA grantees in our national planning meetings to ensure that collaboration occurs on the ground and not solely at a planning level. In addition the N2Africa project leader will meet with AGRA staff at least once a year to review collaborative links and explore new opportunities for N2Africa to gain maximum synergies from the ongoing SHP, PASS, Market Access and Monitoring and Evaluation AGRA initiatives. Another area where interaction of AGRA and N2Africa will have big returns is the N2Africa training of Agro-dealers and the AGRA projects that support Agro-dealers.

An example of agreed collaboration is with the AGRA SHP project number SHP 022 “Enhancing Productivity and Market Development of Soybean and Climbing Beans in Central Highlands of Kenya”. This project was introduced by Prof Daniel Mugendi at the N2Africa inception workshop in January and is a collaboration between Kenyatta University (PI), the Ministry of Agriculture, Kenya, Farm Concern International and Kenya Agricultural Research Institute (KARI). Bernard Vanlauwe attended the start-up workshop for this SHP project and collaboration has been agreed along the following lines:

1. N2Africa will supply dual purpose soybean varieties for testing and evaluating (to be done).



2. N2Africa will exchange protocols for adaptive trials (already done).
3. N2Africa will assist with providing strains for inoculation (to be done).
4. N2Africa and TL-II could assist with soybean processing ideas (to be done).
5. The projects will seek common MSc projects through the ISFM AGRA grant with Kenyatta University (to be followed up on).

This example shows how collaboration with AGRA SHP projects can create synergies and we hope to develop good working relationships with other AGRA projects along the same lines in future.

Another example is the assistance that Anne Mbaabu is providing N2Africa with the preparation of a Value Chain Report for the grain legumes in the eight N2Africa countries. AGRA has already collected some information and these reports will be shared with N2Africa. Anne is also helping to identify the best strategy for this value chain report to be completed so that a realistic plan is developed for improving the grain legume value chain in each country.

Appendix List of AGRA Projects not in the SHP that are potential partners with N2Africa

4.1.1 Agro-dealer Development

Ghana

Organisation: International Fertilizer Development Center

Principal Investigator: J J Robert Groot

Purpose: To create a well-functioning and sustainable input supply system in Ghana in order to increase productivity and incomes of rural food producers in Asante, Brong Ahafo, northern and central regions who account or more than half of the country's poor.

Amount: US\$2,500,000

Projected Duration: 10/1/2008 – 9/30/2011

Kenya

Organisation: Citizens Network for Foreign Affairs, Inc.

Principal Investigator: Mr. Caleb Wangia

Purpose: To develop national agrodealer networks to improve access to agricultural inputs by small-scale farmers.

Amount: US\$4,473,851

Projected Duration: 6/1/2007 – 5/31/2010

Organisation: Equity Bank Ltd.

Principal Investigator: Henry Karugu

Purpose: For a guarantee fund to facilitate access to credit facilities by poor smallholder farmers, agro-dealers and other players in the smallholder farming value chain in Kenya.



Amount: US\$2,500,000

Projected Duration: 5/1/2008 – 4/30/2012

Malawi

Organisation: Citizens Network for Foreign Affairs, Inc.

Principal Investigator: Dr. Richard Chapweteka

Purpose: To develop national agro-dealer networks to improve access to agricultural inputs by farmers in Malawi.

Amount: US\$4,275,965

Projected Duration: 6/1/2007 – 5/31/2010

Mozambique

Organisation: International Fertilizer Development Center

Principal Investigator: Mr. Balu L. Bumb

Purpose: To contribute toward increased food security among smallholder farmers in Mozambique through the development of more efficient agricultural inputs market system.

Amount: US\$1,509,400

Projected Duration: 5/1/2009 - 4/30/2012

Nigeria

Organisation: International Fertilizer Development Center

Principal Investigator: J.J. Robert Groot

Purpose: To strengthen existing agro-dealer network and create a new cadre of agro-dealers that have the means and incentives to supply seeds and related technologies for increased productivity, household incomes and welfare of resource-poor farmers in four disadvantaged zones in Nigeria.

Amount: US\$3,500,000

Projected Duration: 7/1/2008 – 6/30/2011

4.1.2 Fund for the Improvement and Adoption of African Crops

Ghana

Organisation: Council for Scientific and Industrial Research - Crops Research Institute

Principal Investigator: Dr. Hans K.Adu-dapaah

Crop: Cowpea

Purpose: To improve cowpea yields among poor smallholder farmers by introgression of genes for flower thrips and Cercospora leaf spot-resistance in farmer-preferred varieties.

Amount: US\$184,860

Projected Duration: 7/1/2008 – 6/30/2011



Organisation: Council for Scientific and Industrial Research - Crops Research Institute

Principal Investigator: James Yaw Asibuo

Purpose: To develop early maturing, high yielding groundnut varieties with resistance to resotte disease for smallholder farmers in Ghana

Amount: \$184,410

Projected Duration: 6/1/2009 - 5/31/2012

Kenya

Organisation: Farm Input Promotions Africa Limited

Principal Investigator: Dr. Paul Douglas Seward

Crop: Maize, beans, cassava, sweet potatoes

Purpose: To enable poor, smallholder farmers in Kenya and eastern Uganda improve their farm productivity by: (1) facilitating access to improved varieties through promotional activities at farmer and stockist levels; and (2) disseminating improved varieties of maize, beans, cassava and sweet potatoes through linkages created with available seed companies to offer seed in affordable quantities.

Amount: US \$238,600

Projected Duration: 6/1/2008 – 5/31/2010

Malawi

Organisation: Malawi Ministry of Agriculture and Food Security

Principal Investigator: Dr. Geoffrey Kananji

Crop: Bean varieties

Purpose: To enhance farmers' livelihoods and improve food security in Malawi by developing new improved bean varieties with bruchid resistance, high yield potential and farmer preferred traits.

Amount: US\$177,320

Projected Duration: 9/1/2008 – 8/31/2011

Rwanda

Organisation: Institut des Sciences Agronomiques du Rwanda

Principal Investigator: Mr. Augustine Musoni

Crop: Bush and Climbing beans

Purpose: To assist small-scale farmers in Rwanda increase their food security and reduce hunger by developing and promoting new, improved, high-yielding, early maturing, drought-tolerant, disease-resistant varieties of bush and climbing beans.

Amount: US\$151,725

Projected Duration: 9/1/2008 – 8/31/2011

4.1.3 Seed Production for Africa

Ghana



Organisation: Savanna Seed Services Company Limited

Principal Investigator: Mr. Patrick Adingtingha Apullah

Purpose: To avail seed of maize, soybean, sorghum, cowpea, rice and groundnut at an affordable price to resource-poor farmers in three administrative regions of northern Ghana.

Amount: \$149,973

Projected Duration: 6/15/2008 -- 6/14/2010

Organisation: M&B Seeds and Agricultural Services Ghana Limited

Principal Investigator: Mr. Benjamin Anani Kwaku Kemetse

Purpose: To enhance farm productivity and increase incomes of smallholder farmers of the Volta region of Ghana through provision of high yielding improved seeds of maize, soybean, cowpea, rice, groundnut and vegetables; and education on the use of these seeds.

Amount: \$149,765

Projected Duration: 5/1/2009 - 4/30/2012

Kenya

Organisation: Drylands Seeds Limited

Principal Investigator: Mr. Ngila Kimotho

Purpose: To produce, promote and distribute improved seed varieties for use by small-scale farmers in arid and semi-arid areas of Kenya.

Amount: \$150,000

Projected Duration: 11/1/2007 -- 12/31/2009

Organisation: Leldet Limited

Principal Investigator: Mr. Nigel Leakey

Purpose: To produce, promote and distribute improved seed of orphan crops for use by small-scale farmers in arid and semi-arid areas of Kenya.

Amount: \$163,000

Projected Duration: 11/1/2007 -- 11/1/2008

Organisation: Kenya Agricultural Research Institute

Principal Investigator: Dr. Reuben M. Otsyula

Crop: Bean

Purpose: To produce and disseminate seed of improved high-yielding and disease resistant bean varieties.

Amount: US\$163,693

Projected Duration: 11/1/2007 – 10/31/2010

Malawi

Organisation: Seed-Tech Company

Principal Investigator: Mr. Frank Samidu



Purpose: To produce, promote and distribute improved seed varieties for use by poor small-scale farmers in Malawi.

Amount: \$150,000

Projected Duration: 11/1/2007 -- 10/31/2009

Organisation: Association of Smallholder Seed Multiplication Action Groups

Principal Investigator: Mr. Abiel K. H. Banda

Purpose: To enable smallholder farmers in Malawi increase their productivity, food security and household incomes through use of improved seeds at affordable costs and from nearby sources

Amount: \$163,450

Projected Duration: 11/1/2008 -- 10/31/2010

Mozambique

Organisation: Semente Perfeita Limitada

Principal Investigator: Mr. John Makoni

Crop: multiple

Purpose: To support activities aimed at facilitating production and distribution of high yielding, quality seed suitable for use by poor small-scale farmers in southern Africa.

Amount: US\$199,195

Projected Duration: 10/1/2007 – 10/30/2009

Organisation: Insumos Agricultura e Insumos Agricultura e Pecuária

Principal Investigator: Mr. Alfredo Azarias Dique

Crop: improved seed

Purpose: To produce, promote and distribute improved seed varieties for use by poor small-scale farmers in Mozambique.

Amount: US\$129,300

Projected Duration: 11/1/2007 – 12/31/2009

Organisation: IKURU, SARL

Principal Investigator: Moisés Sebastião Raposo

Purpose: To increase incomes and livelihoods of smallholder farmers in Northern Province of Mozambique through production and dissemination of improved seeds of maize, cowpea, soybean, groundnut and sesame.

Amount: \$156,990

Projected Duration: 9/1/2009 - 8/31/2011

Organisation: Lozane Farms Lda

Principal Investigator: Bakir Lozane

Purpose: To enhance productivity on smallholder farms in central and southern Mozambique through seed value chain interventions including increased production of improved seed; sensitizing farmers on importance of good quality seed and establishment of a seed supply network which will make improved



seed accessible and affordable to resource-poor farmers in order to increase yields and income.

Amount: \$150,000

Projected Duration: 9/1/2009 - 8/31/2011

Nigeria

Organisation: Jirkur Seed Producers Cooperative Society

Principal Investigator: Mr. Mohammed Wakawa

Crop: Maize, rice, cowpea, soybean

Purpose: To supply resource-poor smallholder farmers or southern Borno state with improved seeds of maize, rice, cowpea, and soybean at an affordable price, leading to increased food productivity and reduced poverty.

Amount: US\$172,000

Projected Duration: 6/1/2008 – 5/31/2010

Organisation: Manoma Seeds Ltd.

Principal Investigator: Mr. Amos Abba

Crop: Maize, rice, soybean

Purpose: To produce and disseminate improved seed of maize, rice and soybean for smallholder farmers in five north-western Nigerian States, in order to increase food security among rural households.

Amount: US\$148,023

Projected Duration: 1/1/2009 - 12/31/2010

Rwanda

Organisation: Rwanda Seed Company Limited

Principal Investigator: Mr. Alphonse Rukeribuga

Crop: Maize, beans, sorghum, cassava, soybean

Purpose: To produce and disseminate improved seed of maize, beans, sorghum, cassava and soybean to poor, smallholder farming families in the eastern province of Rwanda so as to achieve increased yields, food security and better livelihoods.

Amount: US\$121,900

Projected Duration: 7/1/2008 – 6/30/2010

Organisation: Cooperatives des Agriculteurs des Mais dans la Region des Volcans

Principal Investigator: Thaddee Nibishaka

Purpose: To produce and disseminate improved seed to poor farmers in the northern province of Rwanda.

Amount: US\$102,300

Projected Duration: 3/1/2008 – 2/28/2010



4.1.4 Markets

Multiple Countries: Tanzania, Mozambique, Ghana, Uganda

Organization: Standard Bank of South Africa Ltd.

Purpose: For a guarantee fund to facilitate access to credit facilities by poor smallholder farmers, agro-dealers and agribusinesses supporting smallholder farming value chain.

Amount: \$3,500,000

Duration: 60 months

Ghana

Organisation: International Fertiliser Development Centre

Purpose: To assist smallholder farmers of staple crops in Ghana to have easier access to markets and get higher incomes by linking them to commercial buyers and producers.

Amount: \$1,881,170

Projected Duration: 36 months

Kenya

Organisation: TechnoServe, Inc

Principal Investigator: Fred Ogana

Purpose: To enhance food security and increase incomes of smallholder banana farmers in eastern and central provinces of Kenya by linking them to markets

Amount: US\$896,033

Projected Duration: 1/1/2009 - 12/31/2010

Organisation: Africa Harvest Biotech Foundation International

Principal Investigator: Dr. Rose W. Njeru

Purpose: To scale out the benefits of the tissue culture banana through improved production efficiency of high quality banana fruit that can fetch competitive market prices.

Amount: US\$585,000

Projected Duration: 5/1/2009 - 4/30/2011

Organisation: Cereal Growers Association

Principal Investigator: David M. Nyameino

Purpose: To mobilize and train smallholder farmers in Kenya to form strong business groups that will enable them access reliable and diversified markets for cereals resulting in reduced transaction costs and increased smallholder farmer incomes

Amount: \$999,642

Projected Duration: 7/1/2009 - 6/30/2012

Organisation: Kenya Agricultural Commodity Exchange Ltd.



Principal Investigator: Dr. Adrian Mukhebi

Purpose: To raise incomes of smallholder farmers in Kenya by linking them to more efficient input and output markets through improved market information and trade linkage system

Amount: \$297,195

Projected Duration: 7/1/2009 - 6/30/2011

Malawi

Organisation: University of Malawi

Principal Investigator: Elizabeth Manda

Purpose: For use by its Bunda College of Agriculture for the development of Malawi Agriculture

Commodity Exchange to enhance increased incomes to smallholder farmers through the provision of market information and trade opportunities

Amount: \$250,096

Projected Duration: 7/1/2009 - 6/30/2010



List of project reports

1. N2Africa Steering Committee Terms of Reference
2. Policy on advanced training grants
3. Rhizobia Strain Isolation and Characterisation Protocol
4. Detailed country-by-country access plan for P and other agro-minerals
5. Workshop Report: Training of Master Trainers on Legume and Inoculant Technologies (Kisumu Hotel, Kisumu, Kenya-24-28 May 2010)
6. Plans for interaction with the Tropical Legumes II project (TLII) and for seed increase on a country-by-country basis
7. Implementation Plan for collaboration between N2Africa and the Soil Health and Market Access Programs of the Alliance for a Green Revolution in Africa (AGRA) plan



Partners involved in the N2Africa project



Diobass



Université Catholique de Bukavu



University of Zimbabwe

- Programme d'appui au développement durable **PAD** (DRC)
- Service d'Accompagnement et de Renforcement des capacités d'Auto promotion de la Femme en sigle – **SARCAF** (DRC)