N2Africa Newsletter 1

July 2010

All systems go!!!

It gives me great pleasure to send you our first N2Africa newsletter. Since the initial start-up workshop in January lot's has happened and the priority has been to get action on the ground with partners and farmers.

We have been very fortunate to appoint a full complement of core N2Africa project staff quickly and all started early this year. Meet the team - on the N2Africa website - led by Ken Dashiell (based in Nairobi), with Freddy Baijuka (Agronomist based in Western Kenya), Abdullahi Bala (Rhizobiologist based in northern Nigeria), Hakeem Ajeigbe (Dissemination specialist based in Malawi), Judith de Wolf (Monitoring and Evaluation Specialist based in Zimbabwe) and Mariana Rufino (Systems analyst based in Wageningen). These staff are supported by Paul Woomer (Dissemination specialist based in Nairobi), Bernard Vanlauwe who has an oversight role for East and Central Africa and Robert Abaidoo who has an oversight role in West Africa.

The Steering Committee is also complete (and gender-balanced) and we are fortunate to have such a breadth of expertise to advise us - meet them also on the N2Africa website.

Start-up workshops have been held in all of the partner countries and work on the ground is starting in phases due to the timing of the growing seasons. The fist farmers crops are already harvested in East and Central Africa, just being planted in West Africa and planned to start with the rains in November in southern Africa.

We are now gearing up our communications strategy. Please see the first results in the form of a ten minute video showing the first results from N2Africa in East and Central Africa on the N2Media page of the project website. You will also find a number of other training and information videos on the same page.

From now on will keep you informed regularly on progress. We are always looking for inputs and feedback so please feel free to contact me or the project in general through n2africa.office@wur.nl

Thanks for your continuing support,

Ken Giller

Name Competition

The name for the newsletter could be much more exciting than just ”N2Africa Newsletter” Therefore we announce a competition to choose a more interesting name. Send your suggestions to n2africa.office@wur.nl before September 1st and the best suggestion will receive a prize!

N2Africa Planning Meeting – Zimbabwe, 14-15 June 2010

On the 14th and 15th of June 2010 a meeting was held in Harare to plan for the N2Africa project activities in Zimbabwe.

The meeting was well attended by over 42 people, representing the University of Zimbabwe, agricultural research (from the Agricultural Research Council as well as the Department of Research & Specialist Services in general and specifically of the Soil Productivity Research Laboratory), NGOs and private sector in Zimbabwe. Moreover 8 N2Africa staff members had come from the different regions of Africa as well as the Netherlands to get to know the diverse potential partner organisations in Zimbabwe and have elaborate discussions with them about the implementation of the N2Africa project in Zimbabwe.

The presence of the Soil Productivity Research Lab in Zimbabwe is unique. The lab is widely acknowledged for its expertise in the production of inoculants for many different legumes and its research capabilities. The project will greatly benefit from the collaboration with SPRL in the Southern Africa region and hopefully even beyond this region, people will benefit from the valuable knowledge on inoculation at SPRL. At the same time, N2Africa will make substantial investments in infrastructural improvements in the laboratory and inoculant production facilities. Planning meetings have also been held in all countries in southern Africa and more news on partnerships will be given in forthcoming newsletters.

News from East and Central Africa

1. Setting the scene in East and Central Africa: All national staff that will support N2Africa activities have now been hired in East DR Congo, Kenya, and Rwanda. The first two N2Africa field vehicles are in use in DR Congo and Rwanda with a clear N2Africa sticker on both of its front doors (Photograph 1).

Photograph 1: The first N2Africa vehicle on the road in Rwanda.

2. Signing of sub-agreements: With the last contract currently being signed, ISAR, Rwanda, is the last partner to join the N2Africa team, totaling 9 research and development partners in Kenya, Rwanda, and East DR Congo.

3. Establishment and valuation of the first season activities and planning for the September 2010 season: With about 4 weeks to go after the Nairobi launching meeting and the first growing season in the East and Central African region, crash planning sessions were organized in Kenya, Rwanda, and East DR Congo to start field work, that have resulted in the installation of 5 different protocols with over 2,000 farmers across the region (Photograph 2 and 3). Planning for the upcoming September 2010 season has also been completed with the development of 6 new protocols.

Photograph 2: Adaptive research campaign in Western Kenya.

Photograph 3: Demo-kits used for the demonstration trials in Western Kenya.

4. The first responses! Responses to inoculation were visible in a substantial proportion of the soybean plots across all countries (Photograph 4) while visible responses of bush and climbing beans to inoculation were scanty at best. In the meantime, country planning meeting have been held in each of the countries in preparation of the September 2010 growing season where we are targeting to work with 6,000 households. In summary, we are on track!

5. Filming in the Great Lakes: A film crew visited various N2Africa and related CIALCA activities in East DR Congo, Rwanda, and Kenya and shot about 26 hours of footage.

6. The first impact: After seeing the response of soybean to inoculants, COCOF in Rwanda requested to have access to inoculants for 16 hectares of soybean production. COCOF is working with over 3,000 female farmers in Kamonyi district of Rwanda. Farmers in upland western Kenya requested access to climbing bean and those in lowland western Kenya requested seed from improved bush beans.

Wageningen University Launches Project To Improve Food Production and Soil Fertility in Africa (the initial press release of N2Africa)

Wageningen University has launched a new initiative to improve food production and soil fertility in Africa through expanding the production of legume crops and thus increasing inputs from biological nitrogen fixation. Supported by a four-year grant from the Bill & Melinda Gates Foundation, the project brings together a strong consortium of research and development partners across Africa and aims to benefit more than 200,000 small farming households in eight countries—Democratic Republic of the Congo, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda, and Zimbabwe.

Beans and other grain legumes such as peanuts, cowpea and soyabean capture nitrogen from the air with bacteria that form nodules on their roots. The bacteria receive sugars from the legume plant and use the energy gained to 'fix' nitrogen gas into a form that can be used by the plants to grow. This means that the legumes do not rely on nitrogen from the soil. In Africa legume crops often fail to fix useful amounts of nitrogen because their partner bacteria are not present in the soil or because the soil lacks other nutrients such as phosphorus. Using simple scientific technology farmers can introduce the bacteria as inoculants, together with the seed and small amounts of other nutrients as fertilizer. This simple package gives more than double the yields of farmers in many cases, and helps to improve the soil.

"African farmers scratch a living by producing crops on soils exhausted of nitrogen, while dinitrogen is the most abundant gas in the air all around them. Legume crops use this nitrogen gas to provide nutritious food for small farmers, open market opportunities for farmers, and at the same time improve soil fertility. We don't claim that biological nitrogen fixation can substitute all of the farmers' fertilizer needs, but it can give a real productivity boost" said Ken Giller, project leader, who has collaborated with African researchers on biological nitrogen fixation for more than 20 years, "This programme builds on a number of success stories in which an international network of researchers, extension and NGOs have developed appropriate technologies to enhance the yields of African farmers."

Dr. Nteranya Sanginga, Director of the Tropical Soil Biology and Fertility Institute, Nairobi said "The technologies we will deploy have been used for decades by farmers in the North America and Brazil. African farmers have been denied access to these methods for far too long, but our project will develop capacity to produce inoculants in Africa together with private partners. We will help to build local capacity on biological nitrogen fixation in Africa and draw on expertise from organizations such as the Brazilian Agricultural Research Corporation (EMBRAPA) who are leaders in this field, and from other leading scientists from Europe, the USA and Australia."

In conjunction with Bill Gates' keynote address today at the World Food Prize Symposium in Des Moines, Iowa, the Bill & Melinda Gates Foundation will announce this grant, along with a package of nine agricultural development projects totalling $120 million to address long-term food security.

"Melinda and I believe that helping the poorest small-holder farmers grow more and get it to market is the world's single most powerful lever for reducing hunger and poverty," Gates said.

This grant to Wageningen University is part of the Bill & Melinda Gates Foundation Agricultural Development initiative, which is working with a wide range of partners to provide millions of small farmers in the developing world with tools and opportunities to boost their yields, increase their incomes, and build better lives for themselves and their families. The foundation is working to strengthen the entire agricultural value chain-from seeds and soil to farm management and market access-so that progress against hunger and poverty is sustainable over the long term.

Capacity Building and Training

Capacity Building and Strengthening in Biological Nitrogen Fixation (BNF)
Training of Master Trainers: A five-day training workshop was held at Kisumu Hotel, Kisumu, Kenya (May 24-28, 2010) for training key specialists who will in turn train other stakeholders in their respective countries in the principles of rhizobial inoculants and legume technologies. The workshop brought together 24 participants (33 % women) from 8 countries in Africa, namely; Democratic Republic of Congo, Ghana, Kenya, Nigeria, Malawi, Mozambique, Rwanda and Zimbabwe. The facilitators of the workshop were drawn from N2Africa and other partner organizations. Specifically, the training sought to:

- equip key specialists with skills in legume and inoculant technologies required for conducting training programmes.
- give the facilitators and trainees the opportunity to share varied lessons, experiences, perspectives based on the methodologies developed on legume and inoculants technologies.
- to evaluate and adapt, for the local context, the legume and BNF training materials and plan the outline for a training programme to be delivered in the project countries (in-country training).
- to provide each participant with a full set of training materials which include: legume agronomy, rhizobiology, farmer mobilization, how to run a workshop for farmers and how to manage demonstrations and trials.

Plate 1: Participants in a Group Discussion

Plate 2: Participants during a Field Visit

Training of Master Farmers:
A two day training workshop on Biological Nitrogen Fixation (BNF) and Grain Legume Enterprises was held in Western Kenya and led by FORMAT. The workshop was conducted in Busia, at the ARDAP Conference Center on 18 and 19 May 2010. The purpose of the training was to empower representatives of farmer associations, NGOs and other grassroots interests in the better management of grain legumes as a means of improving smallholder food production systems. This event will be replicated in seven other countries over the next few months and involved 40 master farmers.

During the training course the participants learned and shared knowledge and experiences related to BNF and grain legume enterprises. At the end of the workshop the participants made action commitments for in-country master farmer trainings.

Frontiers in Nitrogen Fixation Training
An advanced course designed for updating of scientists and for PhD students working in the field of nitrogen fixation entitled "Legume-rhizobium symbiosis: from molecules to farmers' fields" will be held from 18th to 22nd October 2010 in Wageningen. We have an impressive group of resource people lined up to give the course so register early to secure a place.

Real Results, Right Now

N2Africa: N2africa is a large scale, science research project focused on putting nitrogen fixation to work for smallholder farmers growing legume crops in Africa. N2Africa is funded by 'The Bill & Melinda Gates Foundation' through a grant to Plant Production Systems, Wageningen University, in the Netherlands. It is led by Wageningen University together with CIAT-TSBF, IITA and has many partners in the Democratic Republic of Congo, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda and Zimbabwe.

N2Africa Communications and Media Research Project: The 'N2Africa Communication and Media Research Project' is part of N2Africa. Its objective is to research how improved communications and media content will facilitate, support and sustain the N2Africa scientific work – the quality of life for many communities will improve as this knowledge and expertise is made available and implemented. A UK production company, TASKSCAPE ASSOCIATES Ltd is helping the University to develop, capture and publish 360°media content for and about N2Africa.

What's the story?: The fact is that edible plant protein can be made by 'fixing' atmospheric nitrogen in a plants system to encourage more luxuriant growth, particularly in poor soils. The process is 'fertiliser for free' offering more 'food for less input'. It can help the livelihoods of smallholder farmers now.

How can it be told?: The many journalistic avenues into N2Africa research and development activities are described on our website www.N2Africa.org.

Contact address for this newsletter is: n2africa.office@wur.nl