

# N2Africa Podcaster no. 56

## Introduction

April, May and June 2019

Is there life after N2Africa? A question I keep asking myself as we are in the final month of the very generous funding we have received from the Bill & Melinda Gates Foundation.

The answer of course is a resounding YES! – although we will not be able to support the same degree of activities in future many activities will continue. To ensure the legacy of our work we are busy writing research papers and various other reports and outputs. We bring you summaries of the last year reports from the N2Africa Core Countries in this Podcaster as well as reports on a closing workshop in Ethiopia and a policy workshop in Tanzania. The Ethiopia workshop addressed engagement with policy makers to see how the goals of N2Africa could be embedded into national policy. This was also the topic of a policy workshop we report on that was held in Tanzania which was the culmination of many earlier consultations.

Many of the N2Africa staff are also in the process of writing applications for grants and contracts and we are confident a number of the strands of work that N2Africa has started with continue into the future. We highlight one example is strengthening the soyabean sector in Ghana where N2Africa and partners have been requested to help by the Minister of Agriculture. In Uganda, a platform is active comprised of private sector actors including ICT extension, microfinance and input and output markets together with NGOs which is continuing large-scale dissemination activities.



The latest N2Africa Doctor – Ilse de Jager – who received her PhD on the 18<sup>th</sup> June for her thesis entitled “Harvesting nutrition” supervised by Inge Brouwer and Ken Giller

We are very proud of the efforts of many N2Africa partners and staff in translating the outcomes of research – Esther Ronner has brought these together in a summary document with hyperlinks to enable these to be shared with partners. Please see the report below and spread the word!

As we have a lot of ongoing activities and will continue writing up outcomes and impacts from N2Africa we have decided to continue with issues of this newsletter at least until the end of the year. If you have news from N2Africa or related activities that you would like to share please do get in touch.

Ken Giller

## Overview of N2Africa training and extension materials available

Under N2Africa Phase I and II, a wide range of training and extension materials about legumes (from production to marketing) and biological nitrogen fixation has been developed. Most of these materials have been adjusted to the relevant context in the different N2Africa countries, or translated into local languages.

In phase I, many of the extension materials were based on the booklet, “Biological Nitrogen Fixation (BNF) and Grain Legume Enterprise: Guidelines for N2Africa Master (or Lead) Farmers (Woomer, 2010). Three different versions (in English) of this booklet were developed, one each for East and Central Africa (EAC), Southern Africa and West Africa (Turner, 2011). Since then, many additional materials have been developed, e.g. related to rhizobia strain isolation and characterization, processing and value addition of legumes, or simplified instructions on the application of rhizobial inoculants.





In Phase II, a lot of attention was drawn to synthesizing lessons learned from the first phase and presenting this information in easy-to-use leaflets and posters for farmers and extension officers. A major partner in this development was the African Soil Health Consortium (ASHC). A joint effort was undertaken to ensure that the information presented was consistent and in line with information provided by other projects. A general booklet on Biological Nitrogen Fixation was complemented with country-specific information on good agronomic practices for the different legumes.

We have developed a report with a complete overview of all materials developed under the project with a brief description, followed by the available information sorted per topic:

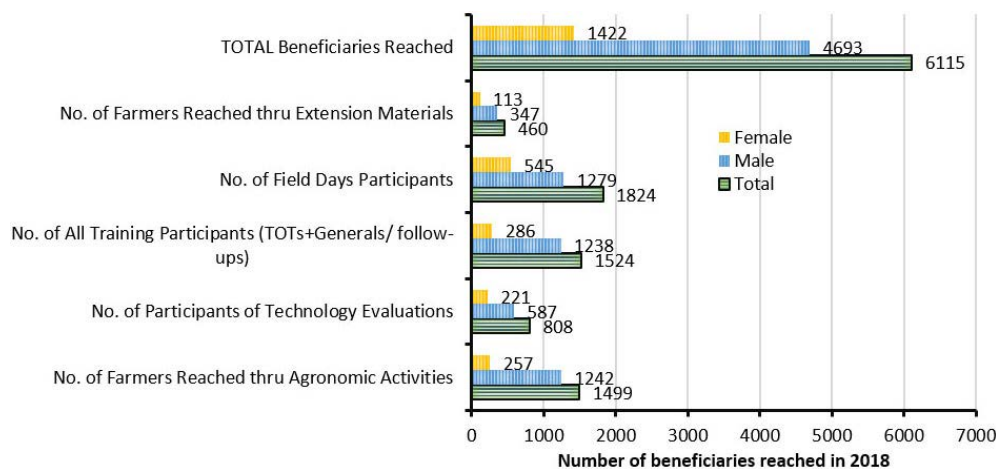
### Highlights of N2Africa-Ethiopia in 2018

The year 2018 was another exciting year for N2Africa-Ethiopia, bringing up the total number of beneficiaries so far reached by the project to 70,000 (in contrast to the 60,000 at the project completion) in 31 woredas of Amhara, Benishangul-Gumuz, Oromia and SNNP regions. The project followed the Public-Private Partnerships (PPPs) approach to achieve the project's Visions of Success i.e. knowledge transfer, legume technology dissemination, access to input and output market. The PPPs are composed of multi-stakeholders (different public, private and development institutions) and are clustered based on the priority legume crops and geographical areas. It is gratifying to see that these PPPs got a foothold and continue to flourish and serve as platforms for networking, to access information, input supplies (seed companies, inoculant manufacturers) and output markets (private processing and export companies). In 2018 cropping season, 6133 beneficiaries have been reached through the different dissemination methods including demonstrations, adaptations, training, field days, technology evaluation events, seed multiplication and distribution of extension materials/leaflets.

Biological nitrogen fixation and grain legume enterprise, Technical trainings and protocols, Rhizobium inoculation, Agricultural management practices for legumes and Post-harvest handling, processing and marketing of legumes. The overview shows what a wealth of information is created, and we hope that this way, it will remain easily accessible to partners.

Esther Ronner, Wageningen University & Research

References:  
 Turner, A. (2011), *Dissemination Tools Produced*, www.N2Africa.org, 17 pp.  
 Woome, P.L. (2010), *Biological Nitrogen Fixation and Grain Legume Enterprise: Guidelines for N2Africa Master Farmers*. Tropical Soil Biology and Fertility Institute of the International Centre for Tropical Agriculture, Nairobi, 17 pp.



Number of farmers participated, and quantity of improved seeds (kg) used for multiplications of certified seeds in 2018

Among others, availability and access to improved seed is useful for sustainability of grain legumes production. This season, 34.9 tons of improved seeds were distributed to the project target locations for planting. Compared to the quantity used for planting during any one of the seasons in the past (2014 – 2017), the amount used in the current growing season was the second largest, only preceded by that in 2016 (37 tons). In view of the relatively small number of farmers that the project engaged in 2018 (6133 farmers), the large volume of improved seeds used this season reflects the increasing interest of smallholders to involve in grain legumes production. Driven by prevailing demand for improved seeds, farmers were willing to organize themselves (under the primary farmers cooperatives unions) and engage in community seed production, thus ensuring the supply of enough quantity of certified seeds for wider cultivation of legumes in the coming season. In this season, 197 ha of land has been devoted for production of certified seeds and this will be an important input for the upcoming season, 2019. It is to be noted that 82.5% of the farmers engaged on seed production were female.

As the project has been running for the last five years in Ethiopia, an impact survey was conducted in Sep-Oct 2018 in two selected project woredas (Pawe for soyabean and Gonder-Zuria for chickpea intervention sites) to assess N2Africa contributions and impacts on the livelihood of smallholders. 741 respondents were interviewed, and the final report indicates a substantial level of technology adoption (up to 80% of the studied farmers)



Beneficiaries reached via various dissemination methods; gender disaggregated

Legumes	Woreda	No. of Farmers Participated			Plot Area Covered (ha)	Amount of Improved Seed Used (kg)
		Total	Male	Female		
Chickpea	6 (Ada'a, Becho, Dembia, Enemay, Damot Gale, Ginir)	243	48	195	82.0	8200
Common bean	5 (Dibate, Mandura, Pawe, Boricha, Halaba, Shala)	22	3	19	12.1	1212
Faba bean	4 (Dabat, Debark, Farta, Yilmana Densa, Sinana)	23	7	16	7.5	1150
Soyabean	8 (Bako Tibe, Chewaka, Gobu Sayo, Jimma, Kersa, Tiro Afeta, Dangur, Mandura, Pawe)	44	0	44	95.8	6080
<b>Grand Total</b>	<b>23</b>	<b>332</b>	<b>58</b>	<b>274</b>	<b>197.4</b>	<b>16,642</b>

N2Africa has produced many promising results over the last years. It is necessary to bring these results and key bottlenecks under the attention of policy makers. A draft document entitled “Policy recommendations for the legume sector in Ethiopia” has been produced in consultation with more than 20 different stakeholders involved in mainly in the N2Africa initiated PPPs and other institutions. Finally, with an aim of widely sharing the project’s success, outcomes, impacts and challenges, a short documentary video has been prepared. The video show achievements and key learning areas in N2Africa project.

Prepared by Birhan Abdulkadir, Data manager, and Endalkachew Wolde-meskel, Country Coordinator N2Africa Ethiopia

(For the full 2018 report of Ethiopia click [here](#))

## Opportunities for developing the soyabean sector in Ghana

The [Ghana Annual report 2018](#) presents last year’s results in compact way. There are developments ongoing in the soyabean sector that deserve to be highlighted.

### Introduction

Soyabean was introduced into Ghana in 1901. However, it was not until the mid-1990s, that it became an important crop in Ghana. During the past decade, production has increased steadily from 74,800 Mt in 2008 to 176,670 Mt in 2018 while area under cultivation has increased from 61,800 ha to 102,980 ha during the same period (MoFA, 2019). Ghana’s soyabean sector is rapidly growing because of development of the poultry and freshwater fishery industries as well as exportation of soyabean to countries such as Turkey and China. Population growth, migration to urban centers and a growing middle-class have led to an increased demand for eggs, animal protein, and processed food and beverages. This, in turn, has increased demand for soyabean to supply food processing and poultry feed businesses.

According to the agricultural sector report, the soyabean annual production potential in Ghana is estimated at 700,000 Mt covering 250,000 ha (MoFA 2017). This provides the opportunity to improve food and nutritional security, improve smallholder farming incomes (improve the incomes of rural households), and enhance soil fertility and other environmental benefits.

Smallholder farmers with an average farm size of 1.4 ha are the main producers of soyabean. It is estimated that about 200,000 smallholder farmers are involved in soyabean production with an average of 0.5 ha under soyabean production per farmer per year. There are however few

large producers of soyabean who through the nucleus farm system engage many smallholder producers as outgrowers and providing some level of support such as land preparation and seed supply.

### Current soyabean supply and demand in Ghana

There are 12 major soyabean grain processing companies in Ghana with capacity to process about 170,120 Mt per year. Two of the companies (Ghana Nuts with 60,000 Mt, and Vestor Oil 24,000 Mt) have solvent extractors, with combined annual solvent extraction capacity of 84,400 Mt (see Table 1 on the next page).

In addition, an estimated processing capacity of 192,000 Mt of soya by many small-scale or small-medium enterprise (SME) processors per year exists. At micro-enterprise and household level, soyabean grains are processed into various products for human consumption i.e. soyamilk, soya flour, soya kebab etc. with a small market share of about 3,400 Mt with grains sourced from own of community-based production.

A recent development (2018) in the sector is exports of non-GMO soyabean grains for niche markets in Turkey and China. Orders for 2019 were set at 20,000 Mt and expected to increase over time. In order to meet the ever-increasing demand for the Turkish market one of the companies has contracted a Nucleus farmer in Tamale to mobilize about 30,000 farmers to produce soyabean for the company over a five-year period beginning with 10,000 farmers in 2019. This company has signed an MoU with GreenEf company to supply him with 1.1 tons of inoculants this season. There are also cross-border regional buyers of soyabean grains from Ghana. These buyers are from Togo and Burkina Faso.



The current locally produced soyabean grain usage in Ghana is 170,000 Mt per year and equal to the current production level estimates by MoFA (2017). Besides this, nearly 15, 000 Mt of grains is imported by 4 of the major processing companies which accounts for about 9% of the total usage. Imports are mainly bought in times of local grain supply shortage 'to keep customer going'. Local grain production usage accounts for about 33% of the total local processing capacity of the 12 major processing companies. Imported grains increases this to 42%.

### Imports of soya and soya products

To meet the country's domestic feed requirements for the farmed fish and poultry (mainly layers-eggs) industries, Ghana imports large quantities of soya-based products annually (see Table 2).

Table 1. Soyabean processors installed capacity and usage

Name	Products	Capacity (Mt/year)	Actual (Mt/year)	Grain Imports (Mt/year)	Local (Mt/year)	Usage
<b>Larger scale soyabean grain processing capacities</b>						
Ghana Nuts Limited (Solvent extraction)	Soyameal / poultry feed	60,000	22,400	7,000	15,400	37%
Vester Oil Mills (Solvent 24k and mechanical 9.6 k)	Soyameal	33,600	9,600	3,000	6,600	29%
Agricare Limited	Animal feed general	19,200	11,812	2,953	8,859	62%
3K&A Industries	Soyameal	19,200	10,752		10,752	56%
Intergrow Limited	Soyameal	8,400	4,000		4,000	48%
Golden Web	Soyameal	7,200	1,440		1,440	20%
Essar Agro West Africa	Soyameal - poultry feed	6,000	4,000		4,000	67%
Topam	Soyameal	5,000	2,000		2,000	40%
Royal Danemac	Soyameal	3,600	800		800	22%
Jokas Farms	Poultry feed	720	450		450	63%
Yedent Agro Industries	Human food / soyameal	4,800	1,440		1,440	30%
Premium Foods	Human food	2,400	2,400	2,000	400	100%
<b>Sub-total</b>		<b>170,120</b>	<b>71,094</b>	<b>14,953</b>	<b>56,141</b>	<b>42%</b>
<b>Small-scale soyabean grain processing capacities</b>						
SME soyabean grain extractors	Soyameal	192,000	93,959		93,959	49%
Micro-Household food	Various	3,400	3,400		3,400	100%
<b>Sub-total</b>		<b>195,400</b>	<b>97,359</b>		<b>97,359</b>	<b>50%</b>
<b>Exports soyabean grain</b>						
Tiakey – Turkey- China	Soya grain	20,000	8,000		8,000	40%
Regional – West-Africa	Soya grain	8,500	8,500		8,500	100%
<b>Total</b>		<b>394,020</b>	<b>184,953</b>	<b>14,953</b>	<b>170,000</b>	<b>47%</b>

Table 2. Soyabean imports in grain equivalent – GE - (Source: www.resourcetrade.earth, MoFA 2018)

Product	GE (Mt) 2017	GE (Mt) 2018	GE (Mt) 2019	GE (Mt) 2022
Soya cake & other solid residues	67,588	97,394	126,612	168,521
Soya bean flour or meal	5,303	7,642	9,934	13,222
Pellets for fish feed	5,180	7,464	9,705	12,917
Soya beans	7,167	14,953	19,439	25,873
<b>Total</b>	<b>85,238</b>	<b>127,453</b>	<b>165,690</b>	<b>220,533</b>

In 2017, imports were 85,238 Mt in grain equivalent (GE). Most imports are from Argentina and smaller quantities from the United States and Paraguay with minor quantities from over ten other countries. The MoFA, 2018 draft Agricultural sector report estimated that soya cake-meal imports in GE reached 112,500 Mt in 2018 and soyabean grain imports were 14,953, giving a total of 127, 453 Mt. If this trend continues, soyabean imports in grain equivalent will be about 165,690 Mt in 2019.

If local production does not significantly increase, it is further expected that due to increasing demand, imports will grow with at least 10% annually to 220,533 Mt per year in the next three years.

### Current production challenges

In Ghana, soyabean is mainly grown by smallholder farmers with an average farm size of about 0.5 ha. Yields

are however, highly variable and often poor. A recent (2018) N2Africa impact assessment survey, showed that the average smallholder farmer soyabean yields in the areas not intervened by N2Africa are less than 1,000 kg per ha confirming an earlier report by Zereyesus et al. (2013).

Potential yield of soyabean in Ghana is estimated at 2800 kg/ha (MoFA, 2009). N2Africa has proved that in the short term, farmers can increase their yields up to 2000 kg/ha using improved technologies (improved seeds, rhizobium inoculant and phosphorus fertilizer). The poor yields are due to these factors: use of low yielding varieties and limited use of inputs especially phosphorus (P) fertilizers, rhizobium inoculants and certified seeds.

The very low levels of mechanization in the production of soyabean from production to post-harvest processing makes small- and medium-scale soyabean production unattractive to the youth who make up the bulk of the population.

Production is scattered with large quantities of production done and marketed by individual farmers making it difficult for aggregators to mob up production from these individual farmers scattered over large areas. Most of these farmers do not have access to credit to purchase inputs such as certified seeds, fertilizers and inoculants.

## N2Africa's contribution to soyabean sector development

N2Africa has identified the best suited soyabean varieties which are non-shattering, drought and disease tolerant, and effective rhizobium inoculants for northern Ghana. Due to the lack of a suitable fertilizer blend for legumes, Yara has developed and tested a crop nutrition solution for soyabean. This 'soyabean partnership solution' has been subjected to widespread conditions in multiple seasons in farmers' fields in northern Ghana and shown to be robust.

Coupled with good agronomy (timely sowing, optimal plant densities and weeding) yields of 2 t/ha are achieved. Strong scientific evidence shows that the additional benefits of adding rhizobium inoculant with P fertilizer covers the cost of P for the farmer (as inoculant is a relatively cheap input).

A public-private-partnership (PPP) facilitated by N2Africa has over the past 4 years aligned key partners to address input and output constraints. SARI has produced foundation seeds for seed companies and MOFA together with some local NGOs have provided extension support to farmers. Heritage Seed Company, Antika Agro-input company and other seed companies have supplied about 555 tons of certified soyabean seeds. Yara Ghana has supplied over 2,600 tons of Yara Legume and other legume fertilizers as required. The Green-ef company has distributed about 1,131 kg of high-quality rhizobium inoculants to meet demand. Savanna Farmers Marketing Company and other trading companies have ensured that farmers have access to a profitable soyabean market. This partnership reached out to about 96,845 farmers within four years with improved legume technologies.

### Way forward

Innovative financing is needed to support critical sectors along the value chain. Access to input credit by farmers

### Some highlighted outcomes from 2018 (N2Africa Borno state, Nigeria)

The 2018 community social mobilization exercise which was organized and conducted successfully in 40 new communities within the four local government areas of the project operational areas in Borno state. A total of 3,278 (1,987 M: 1,291 F) people participated.



Participants at one of the non-degree training sessions in Borno state, Nigeria



Participants at the 2018 community social mobilization in Borno State, Nigeria



Pre-season training on good agronomic practices of grain legume production and safe use of herbicide and handling and application of inoculants and Cowpea Pest Management and IPM for Extension agents, farmers and local agro-dealers was conducted. The main objectives of the exercise are that at the end of the participants are expected to produce good quality gain legume and be able to spray their cowpea with insecticides as and when due (three spray regimes) among others.

is critical for increasing productivity of soyabean. The capacity of aggregators must be built to offer technical as well as financial support to producers. Development of strong association will help reduce individual selling, which promotes the informal arrangement and side selling. Structured contractual arrangement will improve consistency of supply of raw materials and give actors along the chain opportunity to forecast and plan their production and processing schedules.

Mechanization of the entire production chain from planting through to the postharvest processing is critical for the growth of the sector. The private sector must invest in appropriate mechanizations along the entire value chain to reduce drudgery associated with production of the crop in order to attract the youth into production of the crop.

With support from the government, development partners and input and output market players through a PPP arrangement, Ghana can be self-sufficient in soyabean production with opportunity for exporting soyabean to niche markets in Europe and Asia. This will not only improve the income and nutritional security of rural households but also soil fertility and other environmental benefits.

Samuel Adjei-Nsiah, N2Africa Country Coordinator

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- MoFA (2018). Facts and Figures, Agriculture in Ghana, Ministry of Food and Agriculture, Accra.
- MoFA (2019). Facts and Figures, Agriculture in Ghana, Ministry of Food and Agriculture, Accra.
- Zereyesus, Y., K. Ross, V. Amanor-Boadu and T. Dalton. *Baseline Feed the Future Indicators for Ghana, 2012*, Manhattan, K.S: Kansas State University Press, 2013.



To address gender inequality in project intervention, the communities were being sensitized on gender mainstreaming and its importance taking into consideration the context of North Eastern Nigeria and the need to support women, male and female youth to participate in project activities especially business entrepreneurship for better living conditions and to be engaged in Village Savings Loans (VSL) scheme.



A section of sensitization with women for VSL



A section of women at VSL training

Industrial training opportunity (internship) on livestock feed milling was offered to six (6) youth agripreneurs (3 –M, 3 –F) in Kaduna at Kabfat livestock feeds, Hybrid feeds Ltd and Olam grains international. This capacity boost has been very useful in the production and sales of poultry feeds among the youth entrepreneurs and their host communities. It has increased production efficiency in broiler production by cutting costs and increasing profitability and business sustainability.



Participants at the industrial training opportunity (internship) on livestock feed milling



Farmers mini field days were organized and conducted in November 2018. Farmer's Field days plays a vital role for information sharing and dissemination among stake holders of the project and also avail the stakeholders on the various technologies and techniques being pushed to farmers as baskets of options. N2Africa Borno project conducted mini field days



Participants at the mini field days organized and conducted by N2Africa/BOSADP

in 10 locations in the project areas to avail the stakeholders on the various technologies being pushed to farmers as baskets of technology options.

Find [here](#) the link to the N2Africa Annual report Nigeria, Borno State 2018

Nkeki Kamai, Country Coordinator Nigeria

## N2Africa in Tanzania in 2018

In Tanzania, N2Africa continued to maintain its presence in 22 districts (Figure 1) as a result of established strong partnerships with local governments, the national agricultural research centers, the local input companies and various development organizations working around these project target districts. The focus of 2018 was to implement the project exit strategy that fostered continuity of established activities by local governments, ensuring sustainable delivery of legume technologies (notably improved legume seeds, and inoculants) by public research institution and private sector and ensuring farmer's access to markets.

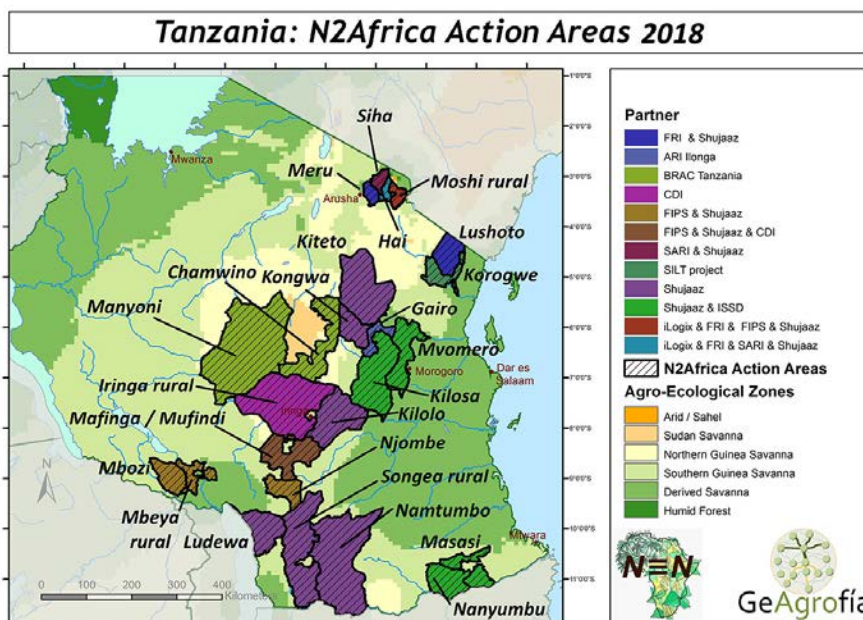


Figure 1. N2Africa coverage in Tanzania for 2018.

## Some outcome of 2018

### Capacity building

In 2018, one MSc student Fides Temu completed studies after successful submission of her thesis to Sokoine University in Tanzania. The project also hosted an intern Charlotte Mallet from Wageningen University to work on models that can predict bean (*Phaseolus vulgaris* L.) yields based on spectral analyses of soils. A new PhD student Wilson Charles was recruited to study the contribution of soyabean and maize value chain as part of food systems in the Southern Highlands of Tanzania.

### Ensuring availability of quality seeds

Special trainings were offered to 146 community seed growers who were later registered to form 5 seed growers associations. These associations have capacity to produce 150Mt of both soyabean and common bean but in 2018 could only produce 95 Mt. Seeds are produced and sold locally as quality declared seed grade or through contracted by seed companies to produce certified seeds.

### Inoculant distribution

A supplier-agro-dealer-village based agricultural advisor (VBAA) model for inoculant distribution to smallholder farmers was tested in the Southern Highlands of Tanzania. Three key participants in the model were identified as hub agro-dealers (Mteweke General Traders in Njombe region, Alpha Agro Chemical Supply in Iringa, and a local agro-dealer Makyo Agrovet based in Morogoro region) and several community volunteers (CV). The model is now proven repeatable and scalable for timely distribution of inoculant. Notable is that, farmer's access inoculants cheaply, in time and with low risk when the VBAA distribution channel is used.

### Access to output market

Legume growers are linked with the East Africa Grain Council (EAGC) who is assisting with developing and promotion of orderly structured marketing systems and providing farmers with market information across countries in the East Africa region. Soyabean growers through Agricultural Marketing Cooperative Societies in their localities are linked with four big animal feed manufacturers who indicated readiness to purchase 130,000 Mt of soyabean. They include Mount Meru Millers who requires 100,000 Mt, International TANFEED, 10,000 and Highland Millers, 20,000 Mt. On the other hand, leaders' farmer groups have managed to engage 638 producer groups, with a total of



Newly installed Soyabean solvent plant at Singida in Tanzania by MT Meru millers.

19,140 members capable of cultivating 28,720 ha of soyabean with anticipated production of about 30,000 Mt. In this development MT Meru has installed a soyabean solvent plant with the capacity to process 35,000 Mt. This indicates a bright future for soyabean production in Tanzania.

### Assessment of effectiveness of dissemination approaches

Assessment of effectiveness of some dissemination approaches used by N2Africa and partners were done in collaboration with the Canada's International Development Research Centre (IDRC) funded project "Suitable Intensification of Legume Technologies in Tanzania" (SILT). Demonstrations and field days were found to enhance uptake of innovations by all gender groups. Integration with interactive radio listening groups at community level ensured more targeted reach of women and youth. Information sharing was observed at family level particularly by older and male family members. Though currently less structured, it provides an opportunity to promote family focused learning.

### Assessment of impact of N2Africa

The impact survey was conducted in key intervention three districts namely Moshi, Ludewa and Songea covering a total of 630 farming households. Preliminary results show great achievements of the project in awareness creation and use of fertilizer on legumes, inoculant and seeds of improved varieties and rotating or intercropping cereals and legumes.

Freddy Baijukya, N2Africa Country Coordinator Tanzania

(For the full 2018 report of Tanzania [click here](#))

## Building an exit strategy for N2Africa project in Uganda - the prospects

An exit strategy was inherent in the N2Africa project design to allow successful grain legume technologies at scale but also have a strategy for a pipeline of technologies to be continuously evaluated and availed to the farmers to improve their production systems and welfare. The quest

for such a strategy was a major focus of the project for Uganda in the last year of the project

N2Africa project has used different approaches with partners to disseminate grain legume technologies including



demonstrations, farmer try-outs and use of media. To meet the aspirations of an exit strategy, and ICT based approach was considered as because of possible fast response, being cheap and limited in reach to only the project action sites. In partnership with Agricultural information Systems Brokerage Association (AGINSBA), remodelling of the m-Omulimisa (<https://m-omulimisa.com/>) from a platform for only extension support to a platform that encompasses grain legume technologies dissemination, brokerage services on inputs and output markets.

### The changes or modifications

To this end ICT services including mobile telephony using SMS services were included. Whereas it is true that mobile telephone penetration in the country has increased over the years, the use of mobile telephones by segments of smallholder farmers is limited to making and receiving calls. There was a need to address that barrier in the use of mobile telephones to access agricultural information in general. The human dimension to the virtual platform with specific focus of helping farmers was strengthened and the platform rebranded by integrating village agents to a knowledge and information village agent model. The village agents play a key role in supporting farmers and farmer associations with aggregation of demand for inputs and also output which they then share through the platform with potential buyers. The village agents also play roles of; profiling farmers and farmer groups, supporting set up of demonstrations, providing technical advisory support (resident memory) for the farming communities, and networking with input and output traders with the outside localities of farming communities. Agro-dealers are included in the systems and are linked with farmer associations and as well as well-known or established buyers of grain legumes buyers.

### What has happened

The KIVA model of m-Omulimisa has been piloted in the northern region of the country in the Lango and Acholi sub-regions with good success. Thirty (30) village agents were



Village agent, Mr Odyek (checked shirt 2<sup>nd</sup> left from group leader in green), meeting a farmers group in Apac to collect information on inputs needed

trained, and they have been able to profile 556 farmers groups totalling to over 17,297 farmers and these have been researched used a bundled services including crop insurance cover, access to finance, access to quality inputs and linkages to buyers.

Through this platform, several new partnerships have been created including the International Institute of Rural reconstruction, Uganda Microfinance Services and these have continued to advance the technologies by looking at critical areas such as financial access which led to support of at least 15 groups so far with loans for inputs totalling to 120 Million Uganda Shillings (equivalent to 32432 USD). Many partners are getting hooked to the platform including MAAIF and definitely beginning with new demands and slowly growing the platform to embrace a systems wide approach with time but also taking a national coverage. Dissemination of technologies is done through SMS and this is sent to as many farmers in the platform and this could contribute to creating demand for the technologies. The piloting of the m-Omulimisa platform has contributed to increased reach of the project and now standing at cumulative total of over 83,111 farmers. This arrangement is so far working well for inputs for soyabean, maize and sunflower producers in the northern region depicting a proliferation into a systems perspective. This already helped in estimating input demands for the 2019, albeit useful for tackling the fractured demand problems. The platform provides a prospect through the private sector coordination to keep the relevant N2Africa activities on-going, particularly access to input and output markets and as knowledge and information support for dissemination of the technologies and in its nature useful approach for large scale dissemination.

For the full 2018 annual report for Uganda in which this exit strategy is referred to, click [here](#).

By Peter Ebanyat, N2Africa country coordinator Uganda and Daniel Ninsiima, Founder and Managing Director at m-Omulimisa



A group assessment meeting by IIRR and Microfinance Uganda services limited for accessing financial loan in Pader, Northern Uganda



## N2Africa project recognizes partners upon project closing workshop in Ethiopia

After being operational for more than five years in Ethiopia, N2Africa will end on 30 June 2019. To this regard, a workshop was organized on 3 May 2019 at ILRI Campus in Addis Ababa to recognize project partners and to close the project officially.

The workshop was attended by nearly 100 participants from project partner and other stakeholder organizations and farmers comprised from the four project implementation regions; Amhara, Benishangul Gumuz, Oromia and SNNPR regions.



Workshop participants

On her welcoming remarks to the workshop participants, Dr Siboniso Moyo, ILRI Director General's representative to Ethiopia, highlights N2Africa's successes in dissemination of legume technologies, capacity development, and smallholder farmers access to legume input and output markets. She particularly emphasised the public-private partnership (PPPs) approaches that the project followed to enhance technology dissemination and access to input-out markets. She also added that ILRI Director General, Jimmy Smith, appreciates the project for its initiative to this regard.

The workshop was officially opened by Dr Awoke Mulualem from Ministry of Agriculture of the Federal Democratic Republic of Ethiopia. In his speech, Dr Awoke emphasized the importance of legumes in maintaining soil fertility, farm intensification, income generation and nutritional values to poor farming communities and the country in general. He appreciates N2Africa's contribution and stressed the commitment of the Ethiopian government to scale up project initiatives.

"A walk through N2Africa- Ethiopia project implementation and partnership journey" was the title used by Dr Endalkachew Woldemeskel, country coordinator to N2Africa in Ethiopia to take the workshop participants through project implementation trajectory and successes. Key lessons from N2Africa impact study in Ethiopia by Theresa Ampadu-Boakyie, N2Africa Monitoring and Evaluation Specialist, followed which highlights the contribution of project approaches in attaining positive and high impact figures.

The panel session on partnerships for enhanced technology scaling and sustainable agri-input and output business

brought about a lively discussion among panellist and the workshop participants in general. The session emphasized the roles the public, private and other stakeholder should play to ensure scaling and sustainability and what policy



Participants of Panel session (left to right, Simret Yasabu panelist, Dr. Tesfaye Kumsa of Anno seed company, Endalkachew Abe of Tsehay Farmers Union, Engidu Legesse of Guts Agro Industry and Yared Tserse of Shayashone consult PLC)



N2Africa products and posters show at the Mini exhibition





Partners and farmers recognition (Representative of HwU receiving certificate from Dr. Azage Tegegn)

support is needed. The panel session was guided by a presentation by Edward Baars, N2Africa Senior Business Development Officer.

An overview of legume policy framework presented by Ferko Bodnar from AgrEvalue, fitted well with the panel session as most issues concern the appropriate policy support to trigger legume business and legume sector development.

Finally, the project awarded certificate of recognition to partners and farmer representatives. During his project



Soyabean farmer from Jimma cluster (Mr. Aba Bia) receiving recognition certificate

closing remarks, Dr Azage Tegegne, Deputy to ILRI Director General's representative to Ethiopia, appreciated N2Africa's outreach to more than 70,000 direct beneficiary farmers in 31 districts with limited resources and asked the partners to sustain N2Africa initiatives, using his words, "keep growing your baby"!

Contributed by Tamiru Amanu and Endalkachew Wolde-meskel, resp. N2Africa Business Development Officer and N2Africa Country Coordinator

### N2Africa Policy recommendations workshop in Ethiopia and Tanzania

*The N2Africa project organised two workshops with participants from government, private sector, research and NGO, to discuss policy recommendations for government and development partners for further support to the development of the legume sector. A first round of policy analysis interviews were held in December 2018. Policy recommendation workshops were held in Addis Ababa, Ethiopia, on 3 May and in Iringa, Tanzania, on 8 May.*

As the project is coming to an end mid-2019, N2Africa organised a policy advocacy activity in Ethiopia and Tanzania. Policy recommendations would encourage government and development partners to bring N2Africa results further by paying more attention to the economic, environmental and nutritional potential of the legume sector, while addressing some of the constraints experienced along the value chain, and in the organisation of the sector as a whole.

In December 2018, Ferko Bodnar, part time at the Dutch Ministry of Foreign Affairs and part time consultant, held 15 interviews in Tanzania, together with Freddy Baijukya and Mwantumu Omari (IITA), and 20 interviews in Ethiopia, together with Endalkachew Woldemmeskel (IRLI), following the legume value chain in these two countries. Based



One of the four working group sessions in Ethiopia

on these interviews, and on N2Africa evidence on the economic, environmental and nutritional benefits, draft policy recommendations were presented and discussed in two half-day policy workshops. The workshops allowed the validation and adaptation of the draft recommendations, and, in Tanzania, also a planning of who could play what role in bringing these recommendations further to policy makers.



What was encouraging in Ethiopia, was that - even though recommendations plead for a more modest and facilitating role by government, giving more room for private sector and farmer organisations - there are already very creative and vocal enterprises and farmer cooperative unions active in seed production, input distribution, processing and export. They contributed to the lively working group sessions, while a Ministry of Agriculture representative invited private sector to come up with more suggestions for policy improvements.

In Tanzania, working groups were invited to also come up with a plan, of who could bring what policy recommenda-

tions under the attention to policy makers. A key role is foreseen for the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), who could host the secretariat for a legume and soya platform that bring together government, private sector, farmer organisations and development partners, for policy dialogue, a better information flow, and organisation of the sector (see below).

The final policy recommendation reports will be available soon.

Ferko Bodnar, Independent Consultant

### Stakeholders approve recommendations for favourable policies to support increased production of grain legumes in Tanzania

Beginning December 2018, N2Africa project has undertaken a policy advocacy activity in two steps; i) bilateral consultations with 15 organisations (in government, private sector, NGO's) to understand perceptions about the current functioning and policy recommendations, for the whole legume sector and of specific segments in the value chain, and ii) a multi-stakeholder workshop in which the results of the policy analysis were presented and discussed, and consensus sought about next steps. These focused on current and future policies, but also considering current and future support programmes, to enhance the place of leguminous crops in agricultural development, and its benefits for the various objectives, relevant in Tanzania. Bilateral consultations (step one) took place between 3<sup>rd</sup> and 7<sup>th</sup> December, 2018, and stakeholder workshop (step two) took place on 8 May 2019.



The below recommendations (in brief) were reached from discussions of the current situation and constraints along the legume value chain and confirmed by legume stakeholders:

1. Give more attention to legumes in policies, strategies and guidelines.
  - a. For legumes as food crops, combine efforts of the Agriculture Sector Line Ministries and the Ministry of Health, and other development partners.
  - b. For soyabean, combine efforts of the Agriculture Sector Line Ministries and the Ministry of Industry and Trade, the Ministry of Labour and Employment, private sector and development partners.
2. Strengthen linkages between agricultural research, extension and seed production, to improve farmer access to new seed varieties and technologies.
3. Consider (temporary) import tariffs to encourage local production of soyabean. Consider flexible tariffs: protecting domestic soyabean production, but allowing limited

- import if domestic production falls short.
4. Increase its diplomacy efforts with neighbouring and other legume importing countries to facilitate trade and export and guarantee market access.
5. Encourage investments in solvent extraction plants to encourage local soyabean production and processing into high quality (low oil content) soya cake, and substitute soya cake import.
6. Consider the compulsory use of legumes in recipes and processing of e.g. porridge for school feeding, for better nutrition and to create a demand pulling local production.

For the organisation of the legume value chain, the following recommendations were made about the current platforms:

1. Encourage the organisation and strengthening of a legume platform and soyabean platform, under the CPB, representing the sector, as policy dialogue partner with the sector.



2. For legumes: revitalise the existing Tanzania Pulse Network
  3. For soyabean: revitalise the existing soyabean platform, and set up a steering committee led by the SCL (SAGCOT).
  4. The legume platforms should review the existing government strategies, and make recommendations for improvements
  5. The legume sector platforms should encourage government, its members, and other stakeholders, to:
    - a. Set up a market intelligence system, combining information about current and expected demand in Tanzania and abroad (volumes, quality, prices).
    - b. Organise farmers in producer organisations, for joint marketing.
    - c. Encourage farmer - buyer contracts and vertical integration.
    - d. Analyse and address efficiency constraints in the value chain.
- These recommendations will be tabled for further discussion by the Tanzania Agricultural Policy Analysis Group (TAPAG) then to Agriculture none State Actors Forum (ANSAF), responsible for advocacy of agricultural policies.
- Freddy Baijukya, N2Africa Country Coordinator Tanzania

### Reports and other output uploaded on the N2Africa website

- Two reports from IITA on N2Africa Borno State: [Gender Analysis of Soybean Adoption and Impact](#) and [Cowpea Early Adoption Study](#);
- BSc report [Benefits of new technologies for grain legume cultivation for smallholder farmers in northern Ghana, as promoted by the N2Africa project](#) by Dorien Westerik;
- MSc thesis [Assessing on-farm performance of improved technology interventions on legume production by smallholder farmers in Sub-Saharan Africa](#) by Betty Masamba;
- MSc thesis [Factors influencing grain legume technology adoption across Sub-Saharan Africa](#) by Roos Mulder.

### Related newsletters

- IITA [News Bulletin 2479](#) with a.o. "Project makes progress in developing sustainable seed systems in Mozambique";
- ASHC news: [Village-based film screenings prove a popular way to reach and inform farming families in Northern Ghana](#).

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