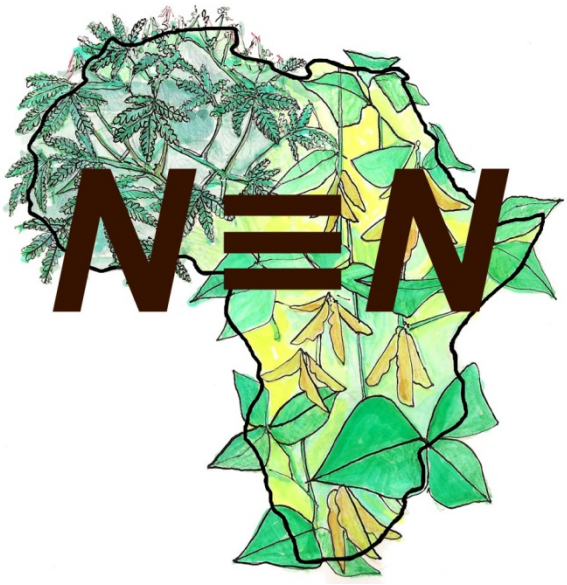

N2Africa Annual Report 2015 DR Congo

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26 February 2016

N2Africa

Putting nitrogen fixation to work for smallholder farmers in Africa

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Acronyms

ADRA:	Adventist Developpement and Relief Agency
PAD:	Programme d'Appui au Developpement Durable
COOPEC:	Cooperative d'Epargne et de Crédit
WFW:	Women for women
WV:	World Vision
FBA:	Farmer Business Association
IKYA:	Youth Agripreneur IITA Kalambo
INERA:	Institut National de Recherche Agronomique
SENASEM:	Service National de Semences
IPAPEL:	Inspection Provinciale de l'Agriculture
SNV:	Service National de Vulgarisation
UCB:	Université Catholique de Bukavu
PAIDEK:	Programme d'appui aux initiatives de Développement Economique du Kivu
MUSO :	Mutuelle de Solidarité
SARCAF:	Service d'Accompagnement et de Renforcement des Capacités d'Auto promotion de la Femme

1 Progress narrative

The Democratic Republic of Congo is one of the countries of Tier 1 Countries N2Africa project and as such in its second phase it covered two provinces of the 11 provinces that pleased the DRC (North and South Kivu Province).

This report includes the activities of the period from February 2015 to November 2015 covering two growing seasons season B2015 A2016.

1.1 Project strategy, coordination and implementation and capacity strengthening

- Five agreements were developed and signed with the national and international organization World Vision, ZOA, Adra, PAD, Private Plantation Ndagano.
- Six workshops made for the Short Rains season (February 2015) and Long rain season (September 2015):
  - 2 workshops in Bukavu;
  - 1 workshop in Uvira;
  - 1 workshop in Goma North Kivu;
  - 2 workshops in the sites Walungu and Kabare.

  The action plan was prepared and field protocol distributed to partners.

- In 2015, N2Africa DR Congo continues to work in the same areas in north and south Kivu, where the project was active earlier. Various partners work along the north axis (Bushwira, Miti, Katana, Bugorhe, Birava, Luhihi, and Kalehe), south axis (Kamisimbi, Ikoma, Mulamba,Mushinga and Burinyi) and south-south axis (Rusizi Mwenga Plain-Uvira-Fizi).

  N2Africa in DR Congo has further linkages with:
  (1) DFID funded project, implemented by the Development Economics group of Wageningen University on the effect of access to inputs on adoption,
  (2) Harvest Plus project (IFPRI) for dissemination beans,
  (3) Humid Tropics, CIALCA: Innovation platform on integrating legume livestock systems
  (4) SARDC IITA (Cassava project)
  (5) IFAD project CLIP (IRLI and IITA in integration agriculture and Livestock in Ruzizi Plain and Miti Katana axis

- In 2015, we focused on working with 2014 partners for the expansion of activities in their new sites (Fizi, Baraka) and old action sites. We found new partners, especially international development organizations, that have contributed financially to the implementation of activities N2Africa technologies.

  That's how we had the support of an amount of $14,275 (ZOA for four months), a sum of $10,000 (World Vision) and an amount of $12,000 (ADRA for six months).

- Exchange with SNV Netherlands Development Organisation is in the process of extending its development programmes. Discussions centered on soyabean. There is an opportunity for N2Africa and its partners to work with them in the promotion of soyabean and inoculant production. Currently we are putting together a business case to support Rizizi Plains soyabean producers (in DRC Congo) in linking them to market.

- Training for trainer (ToT) for gender equity 56 Farmer lead of farmer group (F=40, M=16) in Walungu axe (Walungu, Nduba, Burhale, Lubona, Mushinga) and Katana axe (Murhesa, Kajeje, Miti, Kavumu, Bushumba) were trained.

- N2Africa and Zoa International are conducting rapid evaluation studies of 35 Farmers groups with the main partners of Zoa (GEADES, ASMAKU and CEPROF) in Fizi territory. We also conducted the same study rapid evaluation with World Vision in Kalehe territory with 33 farmers business association FBA and with 39 Farmers group in Ruzizi plain and Fizi territory with the partner Adra.

Focus of the study is to assess the domain of intervention of N2Africa technologies:

- Training of training (ToT) of post harvest 94 lead farmer of partner ZOA - ''market analysis and elaboration of Business plan and organizational support conducted with two consultants.
- Training in ISFM technologies with student secondary school terminal degree Secondary school agriculture Mushuguri institute - 72 students were trained (F=14, M=58).
- Training in ISFM of Farmer group (3,040 Farmers) of PAD, World vision, Zoa, Adra and for 1,934 farmer Soyabean processing and promotion of Soyabean products.
- Training of 638 Farmers leads of partner Women for women on the creation of cooperatives.
- Training of 178 facilitators by PAD partner on credit and saving, to build the capacity of women to run their own business and 124 farmers leads of partner ASOP to demostration trials and Adas installation.

1.2 Delivery and dissemination, sustainable input supply, and market access

1.2.1 Indirect dissemination

During the 2015B and 2016A season, partners disseminate N2Africa technologies to over 8,953 farmers. In addition, partners have established demonstration trials on legume intercropping in each site (130 demonstration trials intercropping legume soyabean and cassava or maize intercropping).

Table 1. Number of ADAS Farmers year 2015

Partner	Number farmers season 2015B	Number farmers season 2015A	Total Farmer Year 2015
PAD	340	560	800
Women for women	3880	0	3880
World Vision	0	1560	1560
Sarcaf/ CLd Cibinda	87	111	186
ZOA	0	1354	1354
ADRA	0	1261	1261
Total	**4307**	**4846**	**8953**

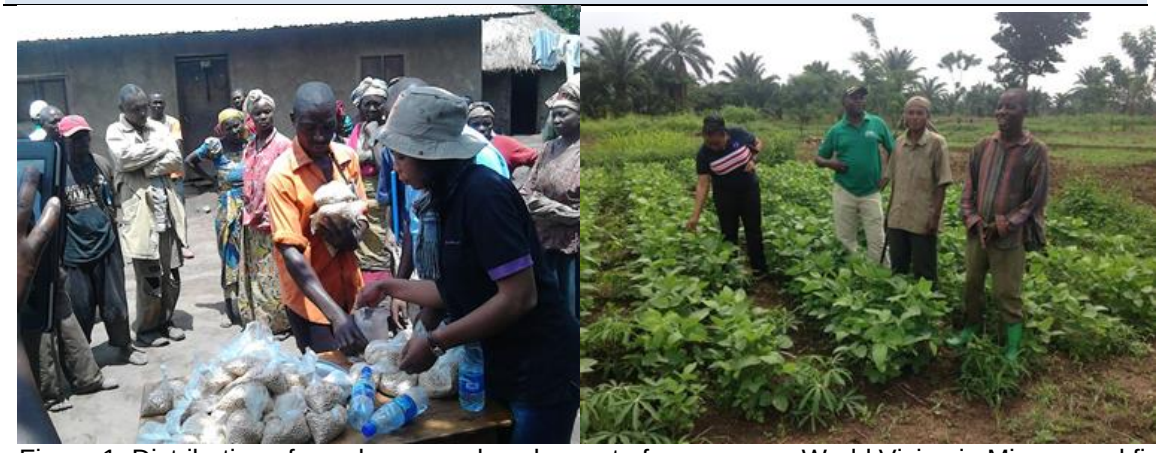

Figure 1. Distribution of soyabean seed packages to farmer group World Vision in Minova and field visit Ada/ Field farmer of partner ADRA.

1.2.2 N2Africa and Women for Women in Kamituga (Mining site with gold and coltan) in south Kivu Province DRC

Located at 180 Km, Southwest of Bukavu town at 1,216 m above sea level, on longitude 28°10'55"E and latitude 3°3'19"S, Kamituga is a mountainous and forest region characterized by mining.

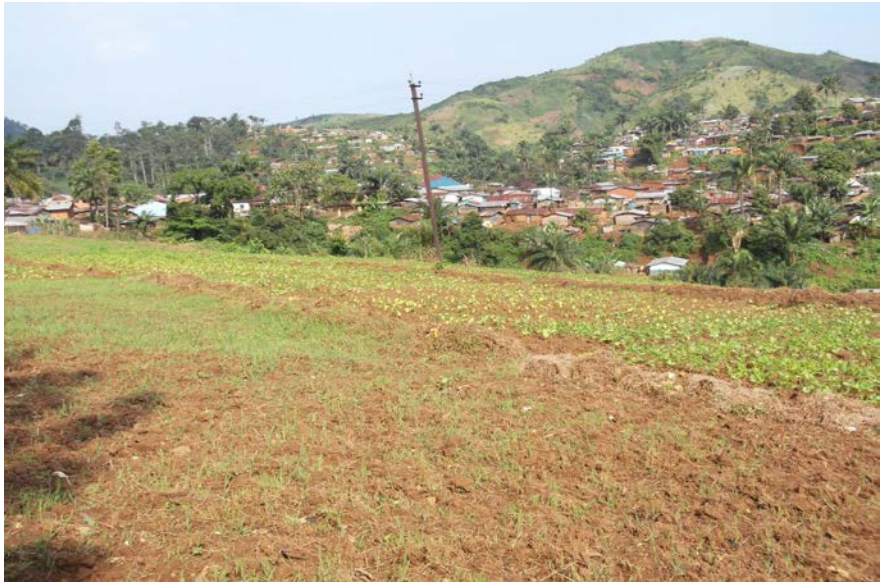

Figure 2. Mining site in Kamituga where BANRO sprl in exploration phase

The war and continuous insecurity in rural areas seriously affect farmer`s self-sufficiency. The major reasons for this poverty are lack of arable land, repatriation and constant growth of the population. Currently, agricultural production is almost for self-consumption. Farmers are moving from extensive crops (oil palm) to intensive crops like cassava and groundnuts. Only a small proportion of the local produce is sold. The problem for these farmers impoverished is that they have no alternative to supplement their income. This situation results in migration to the urban areas or in the investment in natural resources abuse. Given the absence of men in agricultural activities, as most of them are involved in mining, mainly women face the problem of lack of arable land and lack of children education, leading to the increase of food insecurity. Consequently, women were obliged to leave their home villages and get involved in arduous toil in mine. They really work as beasts carrying and grinding stones. Those who carry stones are called “Hilux” and those grinding them are called “Twangaises”.

Given the multiple atrocities affected by Kamituga women, who are continuously marginalized; they become more vulnerable. Thus, Women for Women has chosen to extend its activities in this area with the vision of achieving a situation whereby, nobody is abused, poor, uneducated or marginalized. Members of the community fully and equally participate in the process that insures their well-being and economic independence or each and everybody has the scope of his life and future.

Thus, Women for Women provides skills and resources to women who survived wars, civil strife and other conflicts to overcome poverty and any other crisis for self-sufficiency, thereby promoting viable societies.

It through the partnership between N2Africa and Women for Women that the N2Africa project discovered Kamituga. Soils in this region are characterized by a random fertility due to humus destruction, which is directly related to rainfall. The small amount of humus and colloids ensure soil permeability. Soil permeability results in leaching of mineral fertilizers.

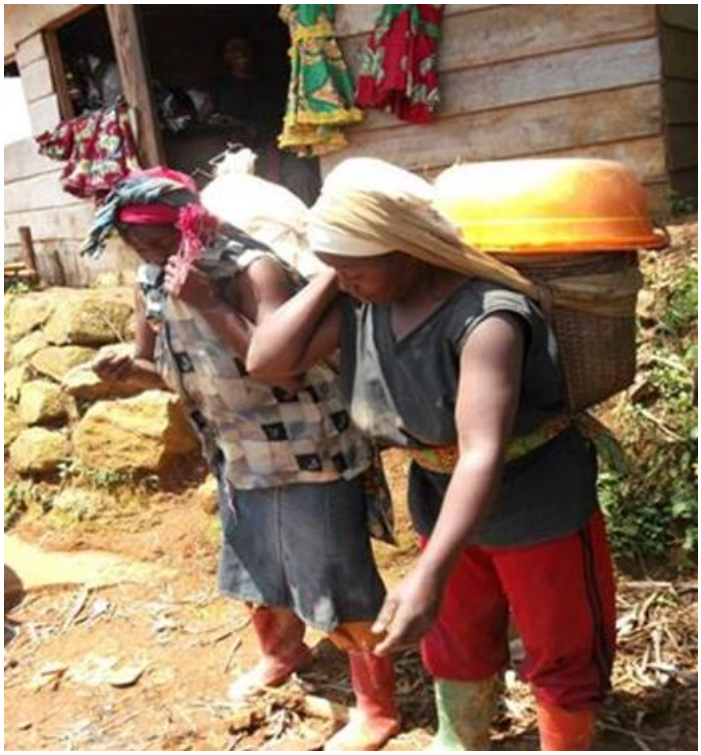

Figure 3. Women carrying stones for grinding are called “Twangaises”.

Through the partner Women for Women, 1,800 women have been selected in the Agribusiness project in Kamituga. Four activities have been pointed out such as capacity building, dissemination of legume crops (soyabean, bean, peanut), training on soyabean and cassava processing, and monitoring and evaluation. The demonstration field that involved 221 women was established. These women are the group of trainers who will train others on Integrated Soil Fertility Management (ISFM) and the dissemination of soyabean.

Table 2. Number of demonstration trials 2015

Partner	Number of demonstration trials season 2015B	Number of demonstration trials season 2015A	Total demonstration trials 2015
Women for women	22	0	22
World vision	0	33	33
ZOA	0	35	35
ADRA	0	40	40
Total	22	108	130

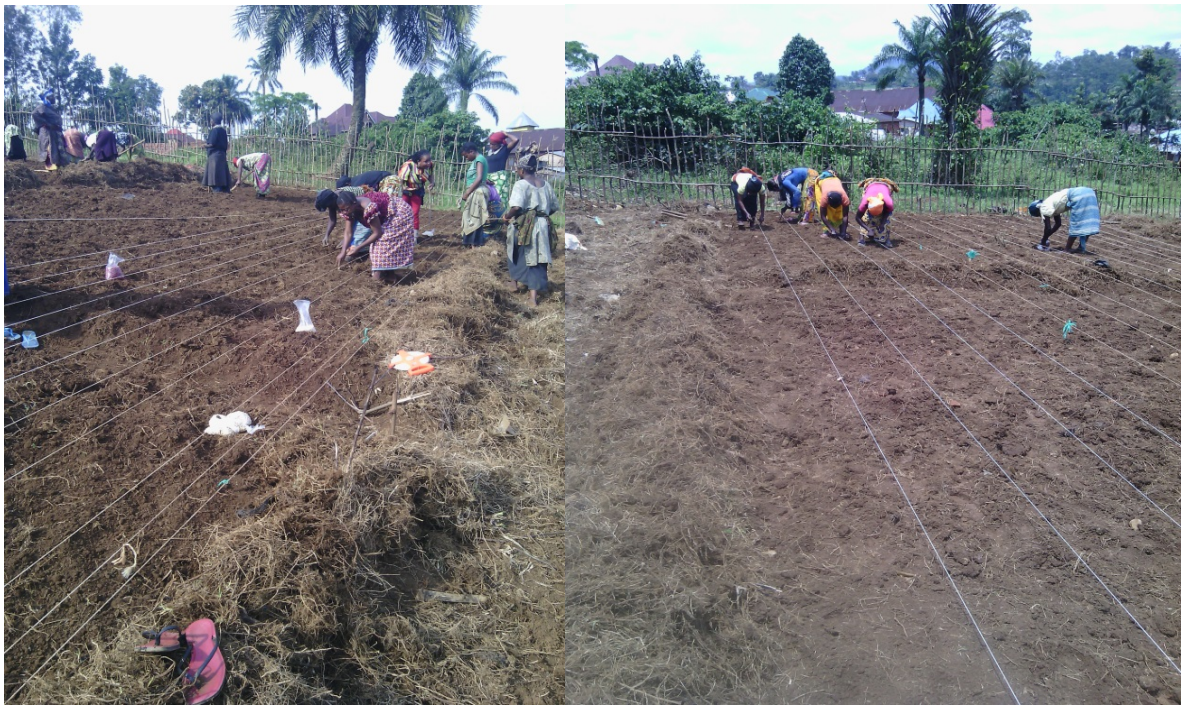

Figure 4. Demonstration plots installation with female Lead farmers in Kamituga.

Figure 5. Demonstration plots installation with Farmer group of World Vision in Kalehe and in Minova.

1.2.3 Credit access

- Linkage of some Farmer groups (InterAssociation), partner PAD and Sarcaf with SACCO, COOPEC Pilote for access to micro finance.
- Eight Farmer groups (IA Nduba, IA Burhale, IA Lubona, IA Walungu, IA Luhihi, CLD Mushweshe and IA Kajeje) received credit to improve legume production, total amount $47,600 for season 2016A, September 2015 – February 2016.

Box I: Farmer model in processing soya in DR Congo.

In Tanzania, N2Africa joined the Legume Alliance, the first cluster of partners under Africa Soil Health Consortium. Recently, the Legume Alliance initiated a campaign on c

Mr. Berkimas is a model farmer, who followed the training on soyabean processing in Kalambo Center. After finishing the training, he began to train households on processing of soyabean and cassava. Ultimately, he has decided to make a little soyabean and peanut processing plant, who is the initiator since 2015 August in Kavumu. Kavumu is a center, which is 25km from the city of Bukavu and 2 km from the airport in an area where soyabean cultivation is practicable.

Mr. Berkimas bought one machine for soyabean processing at $4,600 and one machine for cassava processing. This diesel machine can produce 48 litres of soya oil per hour and 78 kg of crab (the waste) for 120 kg of soya. With a short computation; eight of working days he is going to use 960 kg/day. This will produce 384 liters per day and 624 kg of the waste. At the present time waste is used for livestock. However, Mr. Berkimas considers to process the by-products and change it into soya flour for making soya biscuit and cake in future.

This first experience of the production was about sample, to check our laboratory goodness what and the difference from Goma laboratory.

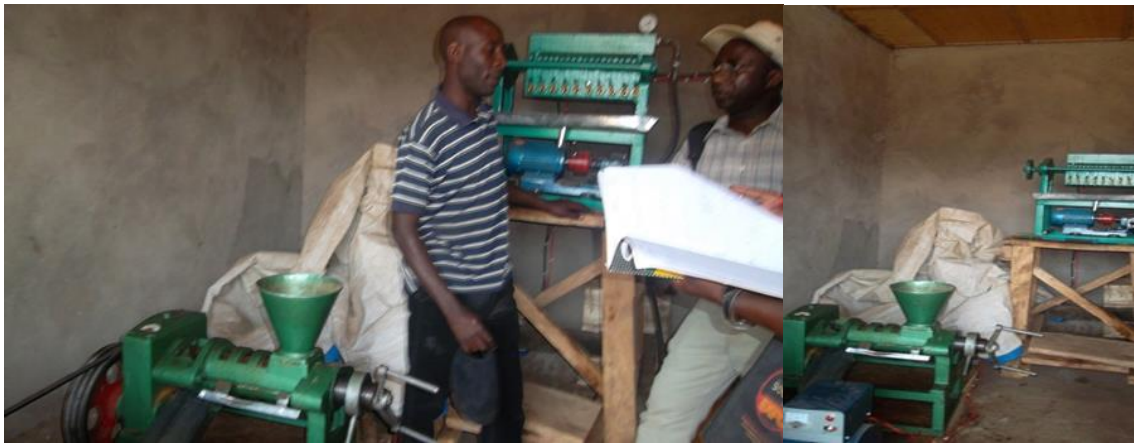

Figure X: Soyabean and peanut processing plant in Kavumu.

1.2.4 Radio events

In partnership with Radio Maendeleo, we continued to make radio broadcasts once a week from 5.30pm until 6.00pm. We have already produced 20 emissions since February 2014. Themes were use inoculums, access of market, management fields, soyabean processing, Farmers' group association, linkage of credit, use fertilizer, post harvest, amongst others. The radio events were in French, Kiswahili and Mashi Local language.

1.2.5 Exchange visit

- The field days were organized targeting students from agriculture secondary school in two actions sites: Mushuguri and Muku.
- World Bank visited the demonstration plots in Murhesa sites.
- Indirectly to its technology, the N2Africa project at IITA-Kalambo leads different activities.
- Dissemination in different corners of South-Kivu province though non-governmental organizations, farmer's organizations, as well as public and private institutions. N2Africa Dr Congo organized study visits with partners as a means of sharing knowledge and creating awareness on different technologies of increasing agricultural productivity in rural areas such as N2Africa technology.

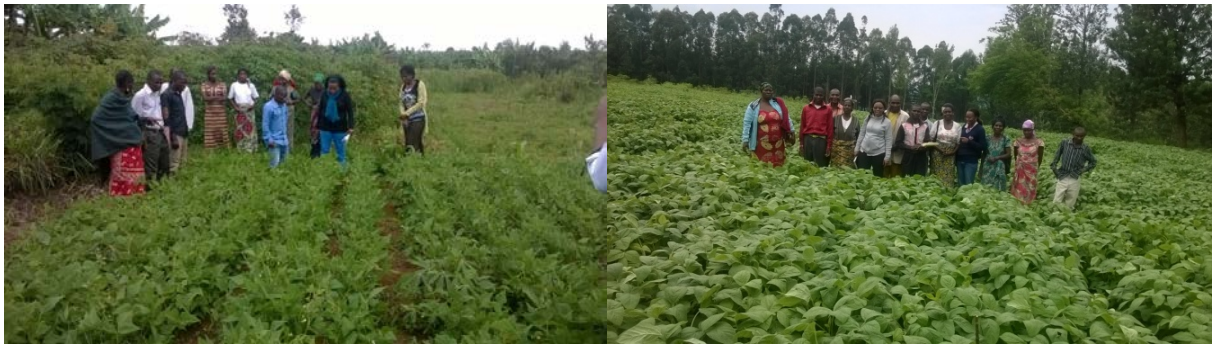

Figure 6. Study visit of some member's of Mushinga and Mulamba organizations and N2Africa team in Mushinga demonstration field and Rugwasikane`s members in a study visit with N2 Africa team in their demonstration field at MITI.

1.3 Empower women to increase benefits from legume production

- Nutrition activities. Identify processing equipment's used in target communities (FGD)
- Focus group discussions with the 3 communities (Nduba - M=12, F=11; Miti - M=7, F=20 and Murhesa - M=12, F=11).
- Training for Trainer women farmer's group on soyabean processing 1,820 Lead farmers.

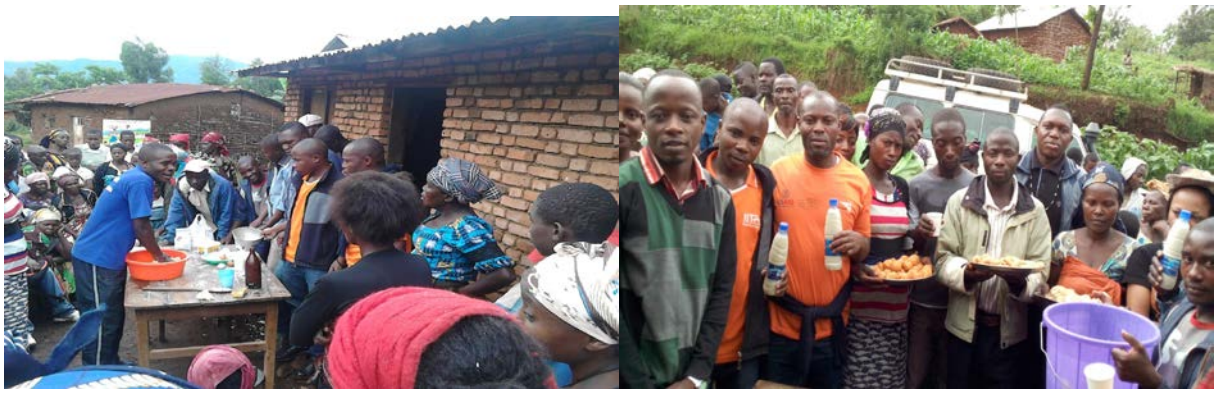

Figure 7. Training for Trainer women farmer group ADRA on soyabean processing and processing soyabean by Farmer's group World Vision.

1.4 Tailor and adapt legume technologies to close yield gaps and expand the area of legume production within the farm

1.4.1 The need to sustain rhizobiology activities

Since the first phase of N2Africa project, many researches were conducted in the rhizobiology laboratory, which capacitated three Rhizobiologists from DR Congo (Isaac Balume, Lilian Bahati and Bintu Ndusha). From the activities, a large number of rhizobia strains were isolated and screened and some of them declared more effective in nodulating local and introduced soyabean varieties as compared to commercial strains. During phase II of the same project, an essay on inoculants production was successfully done and since then about 500 packets of 10g inoculants is produced and delivered to farmers through a local agro-dealer each season. Locally inoculant production is important because of its accessibility at a price that many farmers in the region can afford.

Figure 8. Packets of 10g inoculants.

A part from inoculant production, the laboratory performs quality control of imported inoculants from Rwanda and Kenya but also the quality control of their own products. In addition, the Rhizobiology laboratory has been a means of training for many local Universities especially UCB and UEA through internship offered to students.

Unfortunately, the laboratory is not fully utilized as a result of low financial support to the activities and the rhizobiology team working in the laboratory. The rhizobiology team, consisting of two MSc technicians (Liliane Bahati and Bintu Ndusha) and one BSc technician (Furaha Bagalwa) work under an extremely confining budget of only $10,000 per year. This budget allows them to produce small quantity of inoculant far away to meet farmers demand (500 packets produced against 5,000 packets needed), to conduct quality control test of the same and maintain the rhizobiology stains bank. It is imperatively impossible to sustain rhizobiology activities under this too few resources. Therefore, more effort should be concentrated on how to get supplementary budget in order to meet farmers demand as a way of contributing to food security in the region.

1.5 Enable learning and assess impacts at scale through strategic M&E

M&E specialist meeting with staff N2Africa DR Congo and partners: Women of Women, PAIDEK, PAD, Private agro dealer Lobiko.

- M&E processes of data collection-Discuss data collection tools-Reporting template
- Discuss issues; Project Theory of change-Results framework (milestones & indicators)
- Discuss issues of support received so far from N2Africa and its partners-what has been the benefit
- Discuss the dissemination approaches being used and how it benefits them
- Discuss issues of access to inputs especially ones introduced to them through N2Africa
- Discuss issues of adoption of technologies and what the challenges are
- Discuss issues of market access

2 Results 2015 Dr Congo

Table 3. Results framework

Activity per Objective	Milestone	Indicator	Milestone Target 2015	Achieved 2014	Achieved 2015	Achieved so far (2014&2015)	Reasons for Variance with Planned Target (if any)
Objective 1							
1.3. Engage research, development, private sector, and other relevant partners in each of the target countries	1.3. Partners along the legume input and output value chains cooperate actively towards achieving the overall N2Africa goals	# of partnerships developed and active	involve at least three international organizations to support the indirect dissemination in the plat form in the region	2 Plat forms: 4 public, 2 private (1 seed multiplication and 1 agro dealer) and 8 partners (1 international organization ,1 secondary school, 1 university, 1 microfinance,1media organization and 2 local organization)	1 microfinance (cooperative) and 3 new international organizations are involve along the legume input and output value chains cooperate actively towards achieving the overall N2Africa goals	2 Plat forms: 4 public, 2 private (1 seed multiplication and 1 agro dealer) and 8 partners (4 international organizations, 1 secondary school, 1 university, 1 microfinance,1media organization and 2 local organization	it was important strengthen the microfinance service to promote the savings of farmers' association to promote warrantage access to Market
	1.3.1. By Q2 of year 1, potential partners operating within priority legume value chains mapped	# partners within N2Africa legume value chains mapped	3 new partners	2 Plat forms: 4 public, 2 private and 8 partners	4 partners	18 partners	
	1.3.2. By Q3 of year 2, MoUs with priority partners in each of the target countries signed	# MoUs signed with priority legume partners	7 MoUs	1 MoU signed	5 MoUs signed	6 MoUs	MoU still fuzzy to some partners who do not understand the indirect dissemination

							approach for exemple agro dealer, radio and Some few local organization does not want to sign contracts without the involvement of funds
1.6. Organize seasonal/yearly project-wide and country-specific planning workshops	1.6 Scientists and other stakeholder groups are empowered to further the N2Africa research and development	# Scientist and stakeholder groups leading implementation of activities in N2AFrica yearly plans	2 workshop organized in the long season and 2 in short rain season (1 by axe) / 25 by planning meeting	120 in the short rain season and 94 in the long season	55 (15 F & 41M) in the short rain season and 57 (15 & 42) in the long season	326 participate to leading implementation of activities in N2AFrica two yearly plans	5 Work shop are in two regions in north and south Kivu organized in 2014 but 5 in 2015 in only one region (south Kivu)
	1.6.2. By Q4 of each year, 1 or 2 seasonal, in-country implementation plans developed, evaluated, and revised through in-country- planning meetings	# Seasonal in-country plans developed	18 Seasonal in-country plans developed	7 Seasonal in-country plans developed	7 Seasonal in-country plans developed	14 Seasonal in-country plans developed	Limited funds
1.8. Develop and implement a non-degree-related capacity strengthening plan for relevant partners working within legume value chains	1.8.1. By Q4 of year 1, a non-degree-related capacity strengthening plan developed	Project-wide capacity strengthening plan	, 10 000 farmers trained	5527 Training conducted by staff N2Africa and led farmers of partners	5030 farmers trained Training conducted by staff N2Africa and led farmers of partners	10557 farmers trained	Limited funds
	1.8.2. By Q4 of each year, at least 4 relevant and demand-driven training materials developed in cooperation with the African Soil Health Consortium (ASHC)	# Training materials developed with ASHC	Continued reliance upon Phase 1 training materials, 10000 copies reprinted	Continued reliance upon Phase 1 training materials, 600 copies reprinted	Continued reliance upon Phase 1 training materials, 1000 copies reprinted	Continued reliance upon Phase 1 training materials, 1600 copies reprinted	Phase 1 training materials, are not translated into local languages and adapted

	1.4. By Q4 of year 5, at least 320 partners trained in N2Africa technologies and approaches	# of persons trained (gender disaggregated data) in N2Africa technologies and approaches & # of N2Africa technologies (by type) in which the persons were trained. *(Note: Count the total number of persons trained from the collaborating partners for dissemination. Disaggregate data by gender)*					
Objective 2							
2.1. Constitute and facilitate in-country/in-region N2Africa stakeholder platforms	2.1. Country-specific inoculant, seed, and fertilizer supply strategies guarantee the sustainable supply of high quality seeds and inoculants and legume-specific fertilizer	# and types of input supply strategies related to seed, fertilizers and inoculants. Performance of various strategies identified in relation to sustainable input supply	**3** Involving with private sector in seed multiplication; 4 Linkage with famer association to agro dealer in the input supply business; 3 linkage inoculant production to agro dealer	1 agro dealers lobiko is involved in this activities	**1** Involving with private sector in seed multiplication; 4 Linkage with famer association to agro dealer in the input supply business; 1 linkage inoculant production to agro dealer	**1** Involving with private sector in seed multiplication; 4 Linkage with famer association to agro dealer in the input supply business; 1 linkage inoculant production to agro dealer	
	2.1.1. By Q2 of year 1, N2Africa stakeholder platforms operationalize	# N2Africa stakeholder platforms operational	1 plat form humid tropics R4D	1 plat form humid tropics R4D	1 plat form humid tropics R4D		

	2.1.2. By Q4 of years 1-4, stakeholders agree on specific roles and responsibilities across the various N2Africa objectives	# N2Africa stakeholders with agreed roles and responsibilities	2 agro dealers lobiko is involved in this activities	1 agro dealers lobiko is involved in this activities	1 agro dealers lobiko is involved in this activities	1 agro dealers lobiko is involved in this activities	
2.2. Facilitate N2Africa-led dissemination campaigns in the context of development-to-research learning cycles with specific attention to gender	2.2. Dissemination partners attain/surpass the anticipated number of households targeted and continue to engage in legume intensification post-project	# of target households (men/women) reached *(outcome level: these farmers continue to engage in legume intensification activities after participating in dissemination activities)*	**2500** households 1000 men an 1500 women *continue to engage in legume intensification activities after participating in dissemination*	*8336*	**8953** households 2553 men an 6400 women *continue to engage in legume intensification activities*	17128	
	2.2.1. By Q1 of years 1-4, specific dissemination guidelines for legume intensification assembled	Document indicating specific dissemination guidelines for legume intensification	0	0	0	0	
	2.2.2. By Q4 of years 1-4, specific dissemination guidelines evaluated by a preset (see Returns-on-Investment calculations) number of male and female farmers	# of farmers (men/women) who evaluate the guidelines (Note: # of farmers (men/women) who have evaluated technologies and dissemination activities and methods (Disaggregated by type of dissemination activity))	0	0	0	O	
2.3. Create widespread awareness on N2Africa technologies and interventions	2.3. Local agro-dealers marketing fertilizer, seed, and inoculants are aligned with grass-root producer groups and input wholesalers and manufacturers	*Volume of seeds, fertilizers and inoculants used per targeted producer groups per land area, *Volume of seeds, fertilizers and inoculants sold by agro-dealers	4tons Seeds, 1t fertilizers and 20 Kg inoculants used per targeted producer groups per		4tons Seeds, 1t fertilizers and 20 Kg inoculants used per targeted producer groups per land area,		

			land area,				
	2.3.1. By Q4 of years 1-4, at least 2 media events (e.g., radio, newspaper articles, field days, etc) per country implemented	# of media events implemented	36 of media events	36 media events conducted by 8 stakeholder groups	20 media events implemented	56 media events conducted by 8 stakeholder groups	he objective has not been achieved by misconduct of journalist involved in the presentation of emissions as this activity is performed by the N2 Africa staff who are often onto the field
2.4. Facilitate partner-led dissemination campaigns with specific attention to gender	2.4. A preset (see Returns-on-Investment calculations) number of households engaged in the collective marketing and value addition of legume grains and value-added products	# of individual households (men/women) engaged in collective marketing, value addition of legumes and value added products. Volume of produce sold through collective marketing, volume of value addition products and types of value added products	**10000** of individual households (670 men/ 250 women) engaged in collective marketing in Nduba, Lubona and Miti	0	**920** of individual households (670 men/ 250 women) engaged in collective marketing in Nduba, Lubona and Miti	**920** of individual households (670 men/ 250 women) engaged in collective marketing in Nduba, Lubona and Miti	
	2.4.1. By Q4 of years 2-4, household targets (see Returns-on-Investment calculations), dissemination approaches, and content for partner-led dissemination activities agreed and implemented, with specific attention to gender	# of partner-led agreements/ partnerships with agreed target households, dissemination approaches & activities focusing on gender					

	2.4.2. By Q4 of years 3-5, feedback on the performance of the dissemination models and the demonstrated content fed back to N2Africa	*Performance reports of dissemination models *Type of performance feedback fed back into N2Africa					
2.5. Facilitate private-public partnerships towards the sustainable supply of inoculants and fertilizer	2.5.1. By Q4 of years 1-4, inoculants available through public-private partnerships, through importation and/or local production, the latter facilitated by the inoculant production pilot plant	# of inoculant outlets in the target areas Volume of inoculants imported and /or produced with the identified outlets	1 in Bukavu (600 package by season) and other 1 in walungu (100 package by season)	1 in Bukavu (600 package by season)	1 inoculant outlets continue in Bukavu (800 package by season) and other 1 in walungu (100 package by season)	1 inoculant outlets continue in Bukavu (800 package by season) and other 1 in walungu (100 package by season)	
	2.5.2. By Q4 of years 1-4, legume-specific fertilizer made available to smallholder farmers by fertilizer companies/retailers	# of fertilizer outlets in the smallholder target areas Volume of legume-specific fertilizer at the retail shops	2 fertilizer outlets in the smallholder in Walunngu axis (Nduba) 3 tons legume and 2tons (1tons NPK, 0.5t DAP, 0.3t TSP and 0.2t Urea) and 100 inoculant package	0	1 fertilizer outlets in the smallholder in Walunngu axis (Nduba) 3 tons legume and 2tons (1t NPK, 0.5t DAP, 0.3t TSP and 0.2t Urea) and 100 inoculant package	1 fertilizer outlets in the smallholder in Walunngu axis (Nduba) 3 tons legume and 2tons (1tons NPK, 0.5t DAP, 0.3t TSP and 0.2t Urea) and 100 inoculant package	
2.6. Facilitate the establishment of private sector-led and/or community-based legume seed systems	2.6.1. By Q4 of years 1-4, sufficient legume foundation seed produced by private enterprises and/or government institutions	# of private enterprises & government institutions producing legume foundation seed in the target countries. Volume of legume foundation seed produced by private enterprises & government institutions					

		in the target countries					
	2.6.2. By Q4 of years 1-4, sufficient quality legume seed available to farming communities	Volume of quality legume seed available to target farming communities in the target countries					
2.7. Engage agro-dealer and other last-mile delivery networks in supplying legume agro-inputs	2.7.1. By Q4 of years 1-2, a minimum number of agro-dealers and other delivery network partners trained in the storage, handling, and use of inoculants	# of agro dealers & other delivery network partners trained in storage, handling and use of inoculants	**2**	**2**	**2**	**4**	
	2.7.2. By Q4 of years 2-5, agro-dealer and other last-mile delivery networks engaged in the commercial supply to farmers of agro-inputs, including inoculants	# of agro dealers & other last mile delivery networks in full business of supplying agro-inputs to target farmers including inoculants	**2**	**2**	**2**	**4**	
2.8. Establish agri-business clusters around legume marketing and value addition	2.8.1. By Q4 of years 1-4, opportunities for collective marketing and value addition for smallholder farmer associations identified	# of collective marketing and value addition opportunities identified for smallholder farmer associations	**3**	3	3	6	
Objective 3							
3.1. Sensitize partners, farmer associations, and farming households and mainstream approaches to address gender inequity in farming and decision-making	3.1. Female farmers increasingly lead N2Africa promotion and dissemination activities	# Female farmers leading N2Africa promotion and dissemination activities	4	1	3	4	
	3.1.1. By Q4 of years 1-4, all partners and households engaged in N2Africa activities that address	# of Partner agreements with gender specific activities	2	0	2	2	

	gender inequity						
3.2. Assess business opportunities for women in agro-input supply and legume marketing and value addition opportunities	3.2.1. By Q4 of years 2-4, business opportunities for women identified	# business opportunities identified with focus on women	2 business opportunities identified with focus on women	0	1 business opportunities identified with focus on women	1	Women need some training like women leaderships in business
	3.2.2. By Q4 of years 4-5, at least 2 businesses led by women established per country	# of businesses established and led by women & # of women involved in the businesses established	2 businesses established and 1 led by women put supplies and product legume grain process	0	2 but only one led by women product legume grain process	2 but only one led by women product legume grain process	
3.6. Develop legume product-enriched food baskets for smallholder families	3.6.1 Food consumption and diversity scoped for at least 2 Core Countries	Food consumption and diversity patterns for women and children identified	2000 farmers process grain legumes into 13 different products	2251 farmers in 10 stakeholder groups process grain legumes into 13 different products	1820 farmers in 24 stakeholder groups process grain legumes into 13 different products	4071 farmers in 10 stakeholder groups process grain legumes into 13 different products	That activity can be achieved at he en of December 2015
Objective 4							
4.8. Develop standard operating procedures for the production, quality control and application of rhizobium inoculants	4.8.1. By Q4 of year 2, standard operating procedures of quality control (storage), product registration and application of inoculants used by inoculant producers and retailers	# of inoculant producers and retailers (public private suppliers) using standard operating procedures	2000 inoculants produced in Kalambo Lab and retailers at the private sector (agro dealers	0 inoculants produced in 2014 Kalambo Lab but Routine quality control and isolated strains	2000 inoculants produced in Kalambo Lab and retailers at the private sector (agro dealers)	2000 inoculants produced in Kalambo Lab Routine quality control assessment inoculant and producing with NAC 49 local strains continue	

3 Lessons learned and decisions made

- Analysis and inference of project data collected to-date for each result and how this translates in learning
- Summary evaluation of the project success
- Decisions based on last year's learning (i.e. ways in which the learning impacts project plans going forward)
- Demand for inoculant produced in Kalambo lab has been very remarkable
- The access for Microfinance is now possible for the farmer organization
  Some Partner (World Vision and Adra) already organized the farmers in the associations FBA (Farmers Business Associations). Farmers are beginning to organize to access to credit with IMF.

4 Challenges encountered in implementation

- Production inoculum needs the support, the budget allocated for Rhizobiology activities is very limited to production inoculum and support the staff (one MSc student and one technical) affected in the Lab and greenhouse. Difficult to maintain microbiology lab and greenhouse with this budget.
- Administrative charges expensive (The administrative charges are too expensive (vehicle cost, space office, insurance for daily workers, meals and stipend to police guards, Internet usage.
- One main partner (Women for Women) not sure of continuing the partnership for next season due to its budget cut.
- Limited capacity by implementing partners for organizational development of groups, M&E. Difficult to follow up regularly on activities in the North Kivu province (large area) by the N2Africa team.
- MoUs with Partner take the time to be signed problem of communication! French and English between the parties partner in DRC and the head Quarter IITA Ibadan.
- Partners who solicit the collaboration with N2Africa are not given the feedback on time after exchange.

5 Opportunities identified

- Exchange with SNV Netherlands Development Organisation is in the process of extending its development programmes. Discussions centered on soybean. There is an opportunity for N2Africa and its partners to work with them in the promotion of soybean and inoculant production/ Currently we are putting together a business case to support Rizizi Plains soybean producers (in DRC Congo) in linking them to market.
- Linkage with NODUMAX to produce inoculum in Kalambo lab.
- Marketing trainings by partners should be followed up with actual support to farmer groups to establish the markets identified.
- Involve new partners for dissemination of N2africa technologies Contacts have been made for the exchanges with CI international conservation and the IFAD project IIRLI and IITA in livestock integration system.

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
8. General approaches and country specific dissemination plans
9. Selected soyabeans, common beans, cowpeas and groundnuts varieties with proven high BNF potential and sufficient seed availability in target impact zones of N2Africa Project
10. Project launch and workshop report
11. Advancing technical skills in rhizobiology: training report
12. Characterisation of the impact zones and mandate areas in the N2Africa project
13. Production and use of rhizobial inoculants in Africa
18. Adaptive research in N2Africa impact zones: Principles, guidelines and implemented research campaigns
19. Quality assurance (QA) protocols based on African capacities and international existing standards developed
20. Collection and maintenance of elite rhizobial strains
21. MSc and PhD status report
22. Production of seed for local distribution by farming communities engaged in the project
23. A report documenting the involvement of women in at least 50% of all farmer-related activities
24. Participatory development of indicators for monitoring and evaluating progress with project activities and their impact
25. Suitable multi-purpose forage and tree legumes for intensive smallholder meat and dairy industries in East and Central Africa N2Africa mandate areas
26. A revised manual for rhizobium methods and standard protocols available on the project website
27. Update on Inoculant production by cooperating laboratories
28. Legume Seed Acquired for Dissemination in the Project Impact Zones
29. Advanced technical skills in rhizobiology: East and Central African, West African and South African Hub
30. Memoranda of Understanding are formalized with key partners along the legume value chains in the impact zones
31. Existing rhizobiology laboratories upgraded
32. N2Africa Baseline report
33. N2Africa Annual country reports 2011

34. Facilitating large-scale dissemination of Biological Nitrogen Fixation
35. Dissemination tools produced
36. Linking legume farmers to markets
37. The role of AGRA and other partners in the project defined and co-funding/financing options for scale-up of inoculum (banks, AGRA, industry) identified
38. Progress Towards Achieving the Vision of Success of N2Africa
39. Quantifying the impact of the N2Africa project on Biological Nitrogen Fixation
40. Training agro-dealers in accessing, managing and distributing information on inoculant use
41. Opportunities for N2Africa in Ethiopia
42. N2Africa Project Progress Report Month 30
43. Review & Planning meeting Zimbabwe
44. Howard G. Buffett Foundation – N2Africa June 2012 Interim Report
45. Number of Extension Events Organized per Season per Country
46. N2Africa narrative reports Month 30
47. Background information on agronomy, farming systems and ongoing projects on grain legumes in Uganda
48. Opportunities for N2Africa in Tanzania
49. Background information on agronomy, farming systems and ongoing projects on grain legumes in Ethiopia
50. Special Events on the Role of Legumes in Household Nutrition and Value-Added Processing
51. Value chain analyses of grain legumes in N2Africa: Kenya, Rwanda, eastern DRC, Ghana, Nigeria, Mozambique, Malawi and Zimbabwe
52. Background information on agronomy, farming systems and ongoing projects on grain legumes in Tanzania
53. Nutritional benefits of legume consumption at household level in rural sub-Saharan Africa: Literature study
54. N2Africa Project Progress Report Month 42
55. Market Analysis of Inoculant Production and Use
56. Identified soyabean, common bean, cowpea and groundnut varieties with high Biological Nitrogen Fixation potential identified in N2Africa impact zones
57. A N2Africa universal logo representing inoculant quality assurance
58. M&E Workstream report
59. Improving legume inoculants and developing strategic alliances for their advancement
60. Rhizobium collection, testing and the identification of candidate elite strains
61. Evaluation of the progress made towards achieving the Vision of Success in N2Africa
62. Policy recommendation related to inoculant regulation and cross border trade
63. Satellite sites and activities in the impact zones of the N2Africa project
64. Linking communities to legume processing initiatives
65. Special events on the role of legumes in household nutrition and value-added processing
66. Media Events in the N2Africa project

67. Launch N2Africa Phase II – Report Uganda
68. Review of conditioning factors and constraints to legume adoption and their management in Phase II of N2Africa
69. Report on the milestones in the Supplementary N2Africa grant
70. N2Africa Phase II Launch in Tanzania
71. N2Africa Phase II 6 months report
72. Involvement of women in at least 50% of all farmer related activities
73. N2Africa Final Report of the First Phase: 2009-2013
74. Managing factors that affect the adoption of grain legumes in Uganda in the N2Africa project
75. Managing factors that affect the adoption of grain legumes in Ethiopia in the N2Africa project
76. Managing factors that affect the adoption of grain legumes in Tanzania in the N2Africa project
77. N2Africa Action Areas in Ethiopia, Ghana, Nigeria, Tanzania and Uganda in 2014
78. N2Africa Annual report Phase II Year 1
79. N2Africa: Taking Stock and Moving Forward. Workshop report
80. N2Africa Kenya Country Report 2015
81. N2Africa Annual Report 2015
82. Value Chain Analysis of Grain Legumes in Borno State, Nigeria
83. Baseline report Borno State
84. N2Africa Annual Report 2015 DR Congo

Partners involved in the N2Africa project

A2N

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Caritas Rwanda

Diobass

Eglise Presbyterienne Rwanda

Ethiopian Institute of Agricultural Research

Kwame Nkrumah University of science and Technology

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