



## **N2Africa Project Kenya Exit Strategy**

P.L. Woomer (Country Coordinator, IITA), Nancy K. Karanja (MIRCEN Director), Welissa Mulei (M&E Specialist) and Josephine Ongoma (OSSOM Manager)

December 2017

# **N2Africa**

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



---

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

Email: [n2africa.office@wur.nl](mailto:n2africa.office@wur.nl)  
Internet: [www.N2Africa.org](http://www.N2Africa.org)

Authors of this report and contact details

Name: Paul L. Woomer  
E-mail: [plwoomer@gmail.com](mailto:plwoomer@gmail.com)

Name: Nancy K. Karanja  
E-mail: [n.karanja@cgiar.com](mailto:n.karanja@cgiar.com)

Name: Welissa Mulei  
E-mail: [wmulei@gmail.com](mailto:wmulei@gmail.com)

Name: Josephine Ongoma  
E-mail: [josengoma@yahoo.com](mailto:josengoma@yahoo.com)

If you want to cite a report that originally was meant for use within the project only, please make sure you are allowed to disseminate or cite this report. If so, please cite as follows:

Paul L. Woomer, Nancy K. Karanja, Welissa Mulei and Josephine Ongoma, 2017.  
N2Africa Project Kenya Exit Strategy, [www.N2Africa.org](http://www.N2Africa.org), number of pages 16 pp.



Disclaimer:

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

This information in this document is provided as it is and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at their own sole risk and liability.



---

## Table of contents

1. Project Background .....	4
2. Purpose of Documenting Exit Strategies.....	4
3. Objectives of Documenting Exit Strategies.....	4
4. Assumptions and risks associated with N2Africa sustainability and scale .....	4
5. Description of Exit Strategy .....	4
6. Status of the exit strategy.....	7
7. Way forward: Strategic exit scenarios .....	10
List of project reports .....	13



---

## 1. Project Background

The N2Africa Project as a whole seeks to advance BNF technologies and legume enterprise among small-scale African farmers. Kenya is one of its eleven countries and concludes its activities at the end of 2017. Kenya is well positioned to achieve project goals, largely due to the availability of commercialized BNF technology products, formalization of inoculant quality control mechanisms, high market demand for grain legumes and the advanced stage of farmer organizations. Project activities are largely directed toward the soyabean value chain, although some efforts were also conducted to mobilize the production of climbing beans.

## 2. Purpose of Documenting Exit Strategies

This exit strategy is intended to ensure the sustainability of N2Africa Project impacts in Kenya after it ends in 2017. The entire focus during 2017 within 2017 is upon the strategic allocation of resources that ensure achievement of the following objectives.

## 3. Objectives of Documenting Exit Strategies

The key focal areas of N2Africa exit strategy include:

- a) assurance that legume production is integrated into government structures as needed, particularly county agricultural extension and the regulation of legume inoculant quality,
- b) availability of BNF technology products (legume seed, specialized fertilizer, and rhizobial inoculants) to farmers through commercial channels including "last mile" delivery channels,
- c) the continuation of available and fair legume marketing opportunities to small-scale legume producers, including more localized and profitable value-added processing, and
- d) continued reliance upon information and knowledge sharing platform among partners through readily available social media and other electronic sources, and that feed into local extension services.

## 4. Assumptions and risks associated with N2Africa sustainability and scale

This Kenyan exit strategy is based upon the following objectives:

- a) Input manufacturers and seed companies will continue to invest in legume production inputs, and expand their scope of operations, including greater incentives to "last mile" agrodealers.
- b) The University of Nairobi Microbial Resource Center (MIRCEN) will continue to provide independent testing of biofertilizers including legume inoculants.
- c) Agrodealers will continue to stock BNF technology products, and find their trade as profitable as other product lines.
- d) Quality assurance of legume inoculants will continue beyond the project lifetime, additional inoculant products will enter the market and these legume inoculants will improve with time.
- e) The diversity of legume-based products will continue and investment into localized grain legume marketing and processing will increase, and consumption of these legume products will result in improved nutrition.

## 5. Description of Exit Strategy

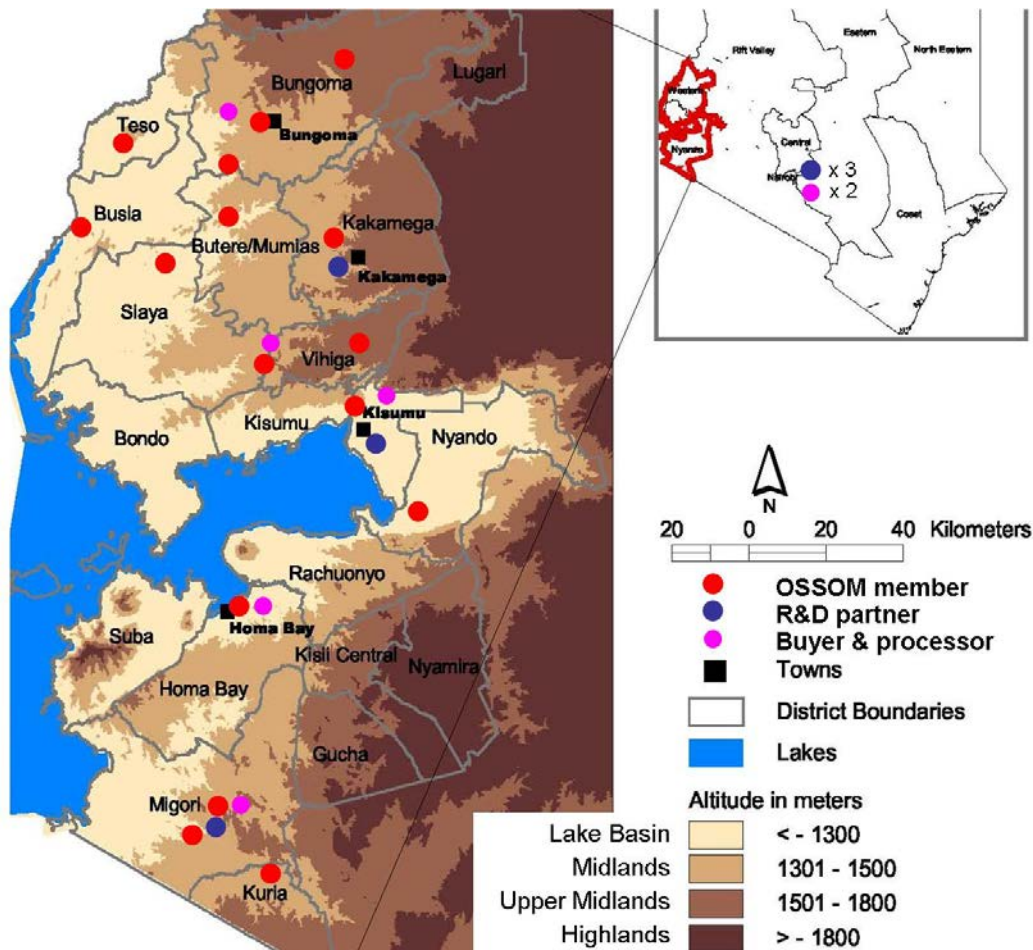
Three kinds of partnerships established by N2Africa in Kenya that are built around the soyabean value chain shall continue: a) profitable input supply, b) profitable processing and trade in soyabeans, and c) continued networking among stakeholders and extension service providers. In addition, capacities developed through N2Africa will be linked to other governmental and non-governmental programs, including those with research and development capacities.



- 
- a) **Profitable input supply:** MEA LTD will continue to manufacture BIOFIX legume inoculant and Sympal legume fertilizer, and to package these inputs into sizes appropriate for investment by small-scale farmers. Agriseed (SeedCo) Ltd will continue to produce and market soyabean seed that is suitable for different food and industrial purposes, and actively market them to small-scale farmers. Agriseed also distributes Rhizobacter inoculants. The Western Kenya Soyabean Seed Growers for Community Seed Bulking will continue to assist in community-based seed production. County-level agricultural extension in key soyabean production areas will link with these input suppliers and distribution channels. Use of these products and services will lead to higher and more profitable soyabean production. *One continued constraint is the profitability of marketing some BNF products at the retail level as it appears that profits from the manufacture and trade in these products are not being equitably shared (too low returns to local agrodealers).*
- b) **Profitable trade and processing:** Marketing opportunities for grain legumes, particularly soyabean, will continue to expand, with much of the crop consumed in a way that improves human nutrition. Reliable buyers and processors of soyabean grain in west Kenya include Victoria Feeds (Kisumu), AWE (Luanda), GreenSpecs (Eldoret), Gesiche Feed (Nakuru), Kirinyaga Millers (Nairobi), Soy Afrique (Thika), and Equatorial Nuts (Nairobi). Unlike some other buyers, these partners are willing to offer cash at sales, higher prices for higher quality grain and to share arrangements for collection point pick up. *A continued constraint is the changes in soyabean wholesale price, largely governed by external forces as the majority of soyabeans in Kenya continue to be imported.*
- c) **Technology dissemination partnership:** During the final year of N2Africa in Kenya, our dissemination strategy focused upon the establishment of the One Stop Shop Operation Mechanism (OSSOM). This mechanism combined 15 One Stop Shops that stock and sell legume production inputs as well as provide extension services for legume crop production. These shops were strategically linked to farmer associations and county extension services. Many of these shops not only market inputs, but also coordinate local commodity collection points and operate value-added processing facilities. Our exit strategy includes continuation of the mechanism beyond 2017, in large part from its alliance to other programs and revenues generated through its operations. One constraint is that OSSOM's current revenue stream without N2Africa support appears unable to secure its future operations. Business models to correct this situation are under development.
- d) **Research and Development Partnership:** Linkages to two R&D programs were forged. These include 1) Kenya Industrial Research and Development Institute that established three accredited soyabean processing factories open to tenancy agreement, 2) Kenya Agriculture and Livestock Research Organization (formerly known as KARI) that operates an accredited seed grower network, as well as conducts research on legume production. A third, but as not yet secured, opportunity is to link OSSOM and other N2Africa partners to the planned AfDB Technologies for African Agriculture Transformation Project that has earmarked soyabeans as one of its key commodities and Kenya as one of its Tier 1 countries.
- e) **Linkage to several governmental and NGO programs is secured:** 1) The Deputy President's Office has established a Soybean Task Force to oversee commercial production of soyabean through County Governments. It was successfully piloted in Migori County with N2Africa partners. 2) State Department of Agriculture and its Agricultural Sector Development Support Program have established soyabean as one of its Priority Value Chains and are providing training and BNF inputs to farmers. 3) Ministry of Industrialization is providing services on soyabean product development and offering common manufacturing facilities for commercial processing and packing of certified soy products by small businesses for a nominal fee. 4) The various County Departments of Agriculture have a mixed response to soyabean enterprise but some provide subsidies of certified seed, inoculants and fertilizer, and officers actively link client farmers to buyers. Also County Departments of Nutrition educate communities on nutritional benefits of household utilization of soy products through volunteer networks. 5) The Farm to Market Alliance is an initiative of the World Food Programme that is connecting soyabean farmers to inputs, buyers and financiers through contractual arrangements. It is piloting its operations in west Kenya in Migori and Bungoma Counties during the Short Rains period of 2017, including OSSOM network members.
- f) **Inoculant quality control.** One R&D service that is distinct from the others is the activities of the University of Nairobi Microbial Research Network (MIRCEN). This laboratory offers a wide range of
-



services and holds the national responsibility for quality control of bio-fertilizers under arrangements with the Kenya Plant Health Inspection service. MIRCEN originated the BIOFIX inoculant and later licensed it to MEA Ltd., for which it receives modest royalties. The laboratory holds the elite rhizobial strains for use by MEA and others, and continues to conduct strain testing as needed. In addition MIRCEN holds regional responsibilities in East and Southern Africa although it no longer receives support from UNESCO that originally sponsored the laboratory. Nonetheless, MIRCEN receives a series of small grants and support graduate-level research activities. Continuation of the MIRCEN laboratory is an important element of this exit strategy.



The West Kenya Action Site and exit strategy partners





## 6. Status of the exit strategy

**Sustainability matrix for KENYA (right).** This matrix provides a summary of the main exit strategy drivers over the N2Africa Project lifetime and beyond the post- project. It consists of project goals and activities (rows) and different categories of project partners and grain legume stakeholders (columns). This matrix is accompanied by lists of specific stakeholders and their locations and contact details. Project outcomes are coded across the stakeholders as either 1 or 0 with 1 indicating a given responsibility and 0 indicating that a party does or will not operate in a specific area. The post-project portion of this matrix is subject to change before January 2018 following consultation with various stakeholders.

Sustainability Goal & Activity	Rural Soybean Stakeholders	R&D Institution	Private Sector Input Manufacturer	Government	Legume Buyers & Processors	AfDB TAAT & Feed Africa	
Partners & Stakeholders	OSSOM Members	University of Nairobi MIRCEN	AgriSeed	MEA Ltd.	several programs	several buyers & processors	Soybean Value Chain
<b>Over Project Lifetime</b>							
Technology Dissemination	1	1	1	1	0	0	0
Capacity building	1	1	1	1	0	1	0
Inoculant availability	1	1	1	1	0	0	0
Seed availability	1	0	1	0	1	0	0
Fertilizer availability	1	0	0	1	1	0	0
Inoculant Usage	1	1	1	1	0	0	0
Seed Usage	1	0	1	0	0	0	0
Fertilizer Usage	1	0	0	1	0	0	0
Inoculant Supply	1	0	1	1	0	0	0
Seed Supply	1	0	1	0	1	0	0
Fertilizer Supply	1	0	0	1	0	0	0
Input Supply	1	0	1	1	0	0	0
Marketing Information	1	0	1	1	1	1	0
Output market champion	1	0	0	0	1	1	0
Inoculant Quality control	0	1	0	0	0	0	0
Inoculant R4D	0	1	1	1	1	0	0
<b>Post-project</b>							
Technology dissemination	1	0	1	1	1	0	1
Capacity building	1	0	0	0	1	0	1
Inoculant availability	1	0	1	1	1	0	1
Seed availability	1	0	1	0	1	0	1
Fertilizer availability	1	0	0	1	1	0	1
Inoculant Usage	1	0	1	1	1	0	1
Seed Usage	1	0	1	0	1	0	1
Fertilizer Usage	1	0	0	1	1	0	1
Inoculant Supply	1	0	1	1	1	0	1
Seed Supply	1	0	1	0	1	0	1
Fertilizer Supply	1	0	0	1	1	0	1
Input Supply	1	0	1	1	1	0	1
Marketing Information	1	0	0	0	1	1	1
Output market champion	1	0	0	0	1	1	1
Inoculant quality control	0	1	0	1	0	0	1
Inoculant R4D	0	1	0	0	0	0	1



---

**Contact details of BNF technology and legume enterprise stakeholders described in the Matrix**  
**Specific e-mail addresses and phone numbers can be obtained via [n2africa.office@wur.nl](mailto:n2africa.office@wur.nl) as publishing them in a public report is forbidden by law.**

***OSSOM Members (key inputs agrodealers)***

One Stop Shop Operations Mechanism (OSSOM). Coordinator Josephine Ongoma, located in Luanda, Vihiga County. Facebook page: <https://www.facebook.com/ossom.soya>. Twitter: @OSSOM15. Instagram: @ossom\_n2\_africa

AFDP Agrodealer, Manager Shem Karani located in Angurai, Busia County.

Annapolis Wonder Enterprises, Manager Justin Omulando located in Luanda, Vihiga County.

Farmers' Key Enterprises, Manager Stephen Kasamani located in Ekeru, Kakamega County.

Green Belt Zone Enterprises, Manager Fredrick Sichangi located in Bungoma, Busia County.

KAGAN Agrodealer, Manager Kennedy Oure located in Homabay town.

Karibuni Agrosales, Manager George Otanga located in Bulimbo, Kakamega County.

Kipeo Agrodealer, Manager John Onyango located in Migori town.

Kirengo Women's Agrodealer, Manager Christine Awuor located in Kirengo, Migori County.

KOMAME Agrodealer, Manager Miriam Liabeda, located in Muhoroni-Koru, Kisumu County.

KUFGRO Agrodealer, Manager Waikena Nyangaria located in Kurutange, Migori County.

MFAGRO Agrodealer, Manager Dick Morgan located in Itando, Vihiga County.

Power Mark Enterprises, Manager Paul Kisimba located in Sondu, Kisumu County.

Trendy Forbes Ltd, Manager John Kwoba located in Mundika, Busia County.

Ugunja Community Agrodealer, Manager Dismas Okello located in Ugunja, Siaya County.

UNGEINT Agrodealer, Manager Paul Wabomba located in Chwele, Bungoma County.

United Grain Masters, Julian Simiyu located in Lutaso, Bungoma County.

***University of Nairobi MIRCEN***

University of Nairobi Microbial Resource Center. Prof. Nancy K. Karanja, Director, located in Lower Kabete, Nairobi. Stanley Kisamuli, Senior Technician,

***Private Sector Input Manufacturers***

Agriseed Co. Ltd (Kenya). Kassim Owino, Manager; Wellingtone Wasike, Product Manager, located on Mombasa Road, Nairobi.

MEA Fertilizers Ltd. Eustace Muriuki, CEO, Priscah Echessa, BIOFIX Manager, located in Nairobi (HQ) and Nakuru town (BIOFIX factory and Sympal blending).

***Related GoK and NGO programs***

Agricultural Sector Development Support Program.(ASDSP). Zipporrah Mugonyi, County Director. Kakamega County.

Farm To Market Alliance. World Food Program. *Details needed*

Kenya Industrial Research and Development Institute. John Githaiga-Center Director. Western Region Center-Head Office. Located in Kisumu.

Kenya Soybean Task Force. Office of the Deputy President. Ambassador Daniel W. Wambura, MBS Principal Administrative Secretary. Located in Nairobi. Mr. Ndirangu, Deputy Chief Economist.

Migori County Department of Agriculture. Francisca Onyango, County Director of Agriculture. Located in Migori town.

State Department of Agriculture. Located in Nairobi. Joshua Oluyali, Senior Assistant Director.

***Legume buyers and Processors.***

Annapolis Wonder Enterprises Ltd. Josephine Ongoma, CEO & Director of Operations. Located in Luanda, Vihiga County. Job Osiako, Director of Procurement. Classic Foods Ltd. Mr. Kariuki, Director. Located in Nairobi.

Equatorial Nuts Processors. Eric Ouma, Field Procurement Manager. Located in Nairobi.

KIRDI Soybean Processing Plant. Elisha Onyango, Food Scientist and Technical Manager-in-Charge. Located in Malakisi, Bungoma County.

KIRDI Soybean Processing Plant. Nelly Achieng. Food Research Scientist & Technical Manager-in-Charge. Located in Migori town.





---

KIRDI Soymilk Processing Plant. Japheth Anuro, Food Research Scientist & Technical Manager-in-Charge. Located in Kisumu town.  
Lake Basin Development Authority. Joseph Ochola. Regional Manager Homa Bay. Located in Kisumu.  
Victoria Feeds Ltd. Benjamin Makokha, Buyer. Located in Kisumu.

**TAAT Program.** To be determined



## 7. Way forward: Strategic exit scenarios

The exit strategy for Kenya is in an advanced stage of preparation. It started in early 2017 when our actions relating to BNF technology dissemination shifted from a focus at the grassroots-level to better networking "last mile" agrodealer delivery mechanisms. From this perspective OSSOM was formed as a means to channel commercialized technologies from input manufacturers to local stockists in a time and cost effective manner. It continued with our test marketing efforts to determine which BNF technology products are in greatest demand, and in what proportions. Representatives of these input manufacturers are now in close contact with OSSOM and its agrodealer members. At the same time, advances were made in the area of "legume food baskets", particularly the registration, packaging and marketing of food products containing legume grains. OSSOM members entered into tenancy arrangements with the Kenya Industrial Research and Development Institute to make better use of under-utilized factory facilities. So what is the way forward, both during the last several months of the N2Africa Project, and beyond its conclusion at the end of 2017?

The strategy is divided among the three major sustainability drives and the timeframe separating the end of project and beyond. These drives are directed toward: Profitable input supply; Profitable trade and processing, and Technology dissemination partnership. Timeframe considerations are the next five months leading to the project's end (August through December 2017) and beyond the end of the project's Tier 1 activities.

**Profitable input supply.** The supply of BNF technologies as commercially available inputs is in place in Kenya, although not many manufacturers or suppliers are in place. MEA Fertilizers Ltd. produces BIOFIX inoculants intended for many different legumes, as well as two fertilizers specifically intended for grain legumes. Agriseed Co. Ltd. (SeedCo Kenya) registered two varieties of soyabean with a third pending, and serves as the country distributor of Rhizobacter soyabean inoculant. OSSOM includes agrodealers located across the West Kenya Action Site that are trained in BNF technologies and closely aligned to farmer organizations that produce and market soyabean. OSSOM has also established a BNF technology warehouse in west Kenya. Input distribution channels are already in place and the product representatives are actively engaged with OSSOM and its members, as well as additional agrodealers and large farmers. In addition, linkages to the Western Kenya Seed Growers for Community Seed Bulking were forged that assists local farmer groups to produce certified soyabean seed. In this way, input supply systems are in place.

### ***Prior to project's end we must:***

1. Conduct a Short Rains planning meeting that consolidates the linkage between product representatives, OSSOM and its members and other potential clients of BNF technology products.
2. Continue with test marketing and product displays of BNF technologies among OSSOM members with special attention paid to the profitability of marketed products along the distribution channel, particularly among local agrodealers.
3. Conduct a rapid evaluation of Rhizobacter liquid formulation inoculant that was recently registered in Kenya and is commercially available for the first time.
4. Support one final round of inoculant quality control testing by MIRCEN in advance of the short rains growing season, and take measures that this testing will continue in the future within the context of a larger inoculant quality assurance program.
5. Actively link these assets to others projects, particularly the Kenya Soybean Task Force and the TAAT Project.
6. Requirements for licensing agrodealers at national and county levels remains very complex, and vary with which inputs are stocked, and guidelines on how to best acquire these licenses and pay the one-time and annual licensing fees are needed.
7. A closing meeting must be conducted to finalize arrangements for effective input supply channels after the end of the project. Key agrodealers and input supply representatives will be in attendance. This closing meeting shall be held in December 2017 and requires about \$8500.

### ***After the project's end we may:***

1. Monitor the trade in BNF technology products through the sales volumes of input manufacturers.



2. Ensure that OSSOM and its members continue to participate in the actions of the Kenya Soybean Task Force, and to hand over N2Africa's training and extension tools to the task force.
3. Incorporate product assessment and inoculant quality control testing into the planned TAAT actions in Kenya (and elsewhere).

Note that after the N2Africa Project's end resources for formal M&E will no longer be available, and rather continuity of input supply successes must be reported through other mechanisms. This consideration also applies to the two following "exit strategy drives" as well.

**Profitable trade and processing.** Initially difficulties were experienced in both the marketing of soyabean grain and its processing into "legume food basket" products. Grain marketing was confounded by our initial targeting of large-scale buyers that were currently dependent upon soyabean imports and unwilling to substitute higher prices for greater quality or to offer cash at farmer collection points. Meanwhile, soyabean products were being first produced at the grassroots level for household consumption without regard to their wider packaging and marketing. With time these trends changed. A wide range of medium-scale buyers willing to link to our collection point network were identified, and soyabean processing became more commercialized, including the printing of product packages bearing Kenya Bureau of Standards seal of approval and registered bar codes. Moreover, it became apparent that west Kenya offers its own growing market for soyabeans for processing of flour, feed and a wide range of food products. These more localized buyers are generally willing to pay higher and to link with smaller-scale farmer collection points. While this momentum is positive, our exit strategy must take several factors into consideration.

***Prior to project's end we must:***

1. Formalize the current assortment of farmer collection points established by OSSOM and develop mechanisms for product marketing. Larger-scale buyers often require volumes greater than that offered by a single collection point. Also marketing services being offered through N2Africa must be transitioned into self-sufficient operations.
2. Throughout the project lifetime, N2Africa has printed and distributed branded grain bags and this recognition factor must somehow be maintained. The branding of grain bags should be redirected toward OSSOM.
3. Relatively few OSSOM members take advantage of the common opportunities for soyabean processing. The requirement and advantages of member market participation must be better described at the next, and final N2Africa country planning meeting, and subscription to these services formalized.
4. Marketing and processing partnership will also be formalized during the Closing Meeting described above. Key buyers and processors will be in attendance.

***After the project's end we may:***

1. Establish an electronic marketing service allowing for orders of grain legumes to be placed and filled, and for the stocks held at market collection points to be combined. More OSSOM agrodealer shops must be expanded into market collection points. Insistence by most OSSOM members for immediate payment at marketing points must be reconsidered in favor of payment within two weeks or so.
2. Enter into agreement with MEA Fertilizers Ltd. to produce branded grain sacks on demand and to deliver them alongside other orders such as fertilizer and inoculant.
3. OSSOM shall continue to assist its members to develop, register, package and market its value-added, legume based products through revenue-sharing arrangement. Medium-scale processors must be better linked to supermarkets, particularly the rapidly growing FoodPlus chain.

**Technology dissemination partnership.** Over the past several years, N2Africa has developed a wide assortment of information tools devoted to BNF technologies and legume enterprises. Booklets developed in Kenya were translated into several languages and distributed in other countries. Many information tools are available in electronic form as well. How these materials shall continue to be available beyond the project lifetime is more an issue for the larger project, but attention is required on how best to manage information needs as they relate to profitable input supply of BNF technologies and trade from legume enterprises as described for Kenya above.



---

***Prior to project's end we must:***

1. Conduct a final planning meeting that identifies the specific information needs of N2Africa clients and how to best disseminate training and information tools in the future.
2. Several important training tools specific to Kenya were developed over the past seven years and are available in PDF format. How these booklets shall continue to be available in electronic copy requires special attention over the next several months.
3. OSSOM has developed some social media, and its members and other stakeholders must become aware of them. So too the content of these social media must be adjusted to client needs.
4. Communication mechanisms will also be formalized at the Closing Meeting described above.

***After the project's end we may:***

1. Continue to offer information services through OSSOM and its social media.
2. OSSOM and its members and stakeholders shall continue to offer information content for wider dissemination by the Kenya Soybean Task Force.
3. The University of Nairobi MIRCEN will continue its regional mandate to advance BNF through a variety of projects and many of the technical information and approaches developed by N2Africa will continue to be employed. So too the findings of MIRCEN shall continue to be distributed via mechanisms reinforced by N2Africa.
4. Incorporate BNF technologies and legume enterprise into the agricultural transformation campaigns offered by the TAAT Soybean Value Chain.



---

## 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
85. N2Africa Annual Report 2015 Rwanda
86. N2Africa Annual Report 2015 Malawi
87. Contract Sprayer in Borno State, Nigeria
88. N2Africa Baseline Report II Ethiopia, Tanzania, Uganda, version 2.1
89. N2Africa rhizobial isolates in Kenya
90. N2Africa Early Impact Survey, Rwanda
91. N2Africa Early Impact Survey, Ghana
92. Tracing seed diffusion from introduced legume seeds through N2Africa demonstration trials and seed-input packages
93. The role of legumes in sustainable intensification – priority areas for research in northern Ghana
94. The role of legumes in sustainable intensification – priority areas for research in western Kenya
95. N2Africa Early Impact Survey, Phase I
96. Legumes in sustainable intensification – case study report PROIntensAfrica
97. N2Africa Annual Report 2016
98. OSSOM Launch and Planning Meeting for the west Kenya Long Rains 2017
99. Tailoring and adaptation in N2Africa demonstration trials
100. N2Africa Project DR Congo Exit Strategy
101. N2Africa Project Kenya Exit Strategy



## Partners involved in the N2Africa project

