



## **N2Africa Project Zimbabwe Exit Strategy**

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# **N2Africa**

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



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## Contents

<b>1. Project Background</b> .....	<b>4</b>
<b>2. Purpose of Documenting the Exit Strategies</b> .....	<b>4</b>
<b>3. Objective of Documenting Exit Strategies</b> .....	<b>4</b>
<b>4. Assumptions and risks associated with N2Africa sustainability and scale</b> .	<b>5</b>
<b>5. Description of exit strategy Status</b> .....	<b>5</b>
5.1. Exit Strategy: to ensure that activities to enhance production and productivity of legume crops are fully integrated into the national structures .....	5
5.2. Exit Strategy: to ensure sustainable input supply.....	6
5.3. Exit Strategy: N2Africa will support information and knowledge sharing platform among partners .....	7
<b>6. Status of exit strategies</b> .....	<b>8</b>
<b>7. Way forward: Strategic scenarios to close the gaps identified</b> .....	<b>10</b>
<b>List of Project reports</b> .....	<b>11</b>



# 1. Project Background

## Project focus, context; vision of success

N2Africa has led work on grain legumes intensification in Zimbabwe for nearly eight years. Over the past four years of Phase II, the main activities included delivery and dissemination of legume technologies among extension staff and farmers in five districts. Beginning from January 2016, the N2Africa team in Zimbabwe sought to place extension and other stakeholders at the forefront, with the role of core project staff limited to technical backstopping. The project sought to reach new farmers using fellow farmers as new 'experts' for technology dissemination. We worked with three grain legumes (soyabean, cowpeas and groundnuts) in all the five mandate districts (Goromonzi, Makoni, Murehwa, Mutoko and Wedza) while common bean was targeted in Goromonzi and Murehwa districts where the agroecological environment is suitable for production of beans at productivity levels that are economical. The confidence building measures we have adopted in working with local partners are part of our vision for sustained use of technologies beyond the active N2Africa project period.

## 2. Purpose of Documenting the Exit Strategies

The N2Africa proposal document describes in broader terms how the project will exit and still sustain its impacts, i.e., the exit strategy is **to ensure the sustainability of N2Africa impacts after it ends**. The purpose of documenting the exit strategies and their status is to know **how each country intends to withdraw its resources or has withdrawn its resources while ensuring that achievement of the project objectives is not risked** and that progress towards the vision of success will continue.

The key focal areas of N2Africa exit strategy are:

- a) to ensure that activities to enhance production and productivity of legume crops are fully integrated into the national structures (continuous dissemination/introduction of technologies to enhance awareness and knowledge)
- b) to ensure sustainable input supply (essential agro-inputs (seed, legume fertilizer, inoculants) in this context are available to farmers and stakeholders); this includes evidence that private sector (or governmental sector agents, as relevant) actually do avail legume inputs, on commercial or subsidized basis.
- c) to support information and knowledge sharing platform among partners (ensuring that farmers and stakeholders have information on N2Africa best practices); this includes tools (variety tool which will be meta-data of various demonstration and adaptation trials, showing average responses for certain areas and risks related to such responses (including economic data), guidelines, technical briefs that stakeholders can use.

In broad terms, farmers will have access to quality inoculants, sufficient seed of improved varieties, and fertilizers that are required for the production of legume crops.

## 3. Objective of Documenting Exit Strategies

The objective of this document is to indicate to what extent the above exit strategy drivers have been pursued and the remaining gaps to be addressed. Specifically to:

- 1) Ascertain what has been done regarding exit strategies:
  - a. To fully integrate activities into national (Private, NGO, Government) structures;
  - b. To ensure sustainable input supply; (this can have different pathways i.e. CBO, ICT-Platform based, outgrower to information brokering, market-research with feedback loops, etc.); and
- 2) To support information and knowledge sharing platform among partners;
- 3) To know where we are in terms of exiting and what are the exit strategy scenarios for gaps identified.



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

One major assumption was that the private sector would take up – invest in smallholder supply chains for improved legume seeds, bio- and legume chemical fertilizers.

- In Zimbabwe, the systems of fertilizers and inoculants from pre-project phase have largely been maintained. There have been no private players involved in inoculant production or new fertilizer companies coming up with new fertilizer formulations.
- What has significantly changed though is increased awareness among stakeholders on inoculants, especially soyabean production. Farmer groups have actively sought to access inoculants on time.
- There has been increased responsiveness from the inoculant factory that has worked with the government extension system to ensure inoculants are available at district level.
- Quality control at the inoculant factory has been maintained in many sections or enhanced, despite economic turmoil in Zimbabwe. This is partly due to N2Africa interventions and training of staff.

## 5. Description of exit strategy Status

### 5.1. Exit Strategy: to ensure that activities to enhance production and productivity of legume crops are fully integrated into the national structures

#### 1. Build national/local organizational and human capacities

With a thin and poorly funded NGO community and other development partners, the Zimbabwe strategy has been to concentrate on the national agricultural extension services system (AGRITEX). In our view, this was the most strategic path to follow as the few NGOs still operating needed funding from N2Africa, this being different from other countries where partners' main interests were hinged on accessing N2Africa technologies for scaling. The Soil Productivity Research Lab (SPRL) has recognized both material and technical input from N2Africa. Phase I invested in laboratory equipment and technicians training support. During Phase II, we facilitated field experimentation as well as equipping the inoculant point of sale with a durable refrigerator. Our efforts will have impact well after the project implementation phase. The Crop Science Department at the University of Zimbabwe is now sending more students for internships at SPRL as a result of the partnership with N2Africa. Such interaction will ensure high standards are maintained into the future.

The long-term interaction that N2Africa has had with district and ward level government extension workers, has transformed extension messages on grain legume production practices in project intervention areas and beyond. All extension workers mastered the basics of inoculant technology and they understand more the use fertilizers for grain legume production, beyond the traditional ammonium nitrate and NPK fertilizers for maize.

Smallholder farmers have often failed to access large scale buyers, such as Olivine Industries in Harare, due to small volumes per transaction that are associated with large transaction costs. Training in collective marketing and formation of viable community marketing associations has removed this bottle neck. Organization has been at the local level, so this is likely to continue.

#### 2. Mobilize national/local and external resources to continue implementation

- The SPRL will continue to produce quality inoculants but with a better vision for actively enhancing accessibility by farmers. In the past, there were cases when inoculants produced were poorly distributed to selling points readily accessible to farmers. Over the past few years, the volume of sales has increased as a result of better linkages with end users of the product, including AGRITEX network and other NGOs.



- AGRITEX has been empowered to provide a better service to farmers and other stakeholders. Rotational benefits on cereal crops sequenced with grain legumes are now being well articulated by both extension personnel and farmers. Future investments on grain legume production by other organizations will yield results immediately.
- Zimbabwe economy has been in turmoil for nearly two decades now. If the economy improves, there is vast potential for investments in agriculture for grain legume value chains.
- Partners have largely integrated N2Africa approaches in their own systems. This is a recipe for success in future activities, whether externally funded or from within organizations.

## 5.2. Exit Strategy: to ensure sustainable input supply

### 1. Develop partnerships and local linkages to sustain input supply

Zimbabwe's economy has a huge agrarian inclination. This is one of the reasons why the SPRL has been continuously supported by governments since the 1960s to ensure that the country has sufficient inoculants. N2 Africa has supplied some critical equipment to the laboratory, and gave opportunities to local staff for training on current inoculant technology practices. The direct and mutual relationships that SPRL and seed companies have natured over the past few years are likely to fuel sustainability. Independent technology dissemination by partners, especially through demonstration trials by seed companies will have ripple effects in different farming communities. Currently seed companies are locating their demonstration plots in smallholder farming communities.

- For the soyabean value chain, access to inoculants is important as almost all soyabean varieties marketed in Zimbabwe are specific varieties.
- The SPRL has a network of inoculant selling points at district level with dedicated refrigerators. Agro-dealers sell inoculants at a commission
- SeedCo has instituted a package in which seed sales are linked with access to inoculants. This has been innovative as transport costs to access seed and inoculants are reduced. Most agro-dealers that are conduits for SeedCo soyabean seed marketing are also sell inoculants.
- SeedCo website has been expanded to include more information on the range of grain legume varieties available and the complementary inputs required for successful production, including fertilizers, inoculants and soil types for best results

### 2. Build local business networks with the private sector to ensure input supply

Private sector partners are the lead actors in driving the access to inputs segment of the value chain, except SPRL which is public organization but linked to SeedCo. SeedCo has invested in the seed supply chain and has linked its strategy to inoculant access at the district level.

- SeedCo is the most important supplier of seed for soyabean.
- Agriseeds and ZimSeeds have increased their distribution of cowpea and groundnuts. Unfortunately for cowpea, the large volumes accessed by farmers were linked to some NGOs whose programs have since wrapped up. The momentum that had been gained largely dissipated.
- The input supply systems are locally adopted, establishing access to inputs at specific locations as preferred by farmers.
- Private companies are committed to see vibrant value chains as they are driven by making profits. We have witnessed increased investments by private players in agricultural shows as they market their products.



### 5.3. Exit Strategy: N2Africa will support information and knowledge sharing platform among partners

Over the past year, the local government extension service has been leading project implementation in the study sites. We have actively ensured that district level extension planning mainstreamed grain legume production, including a dedicated session on grain legumes at ward and district level agricultural shows. N2Africa has supported these initiatives with prizes to best farmers. We are encouraging other partners (especially private sector) to give incentives to innovative farmers. These successful farmers become hot spots for local level dissemination of technologies into the future. While the University of Zimbabwe has been leading the project during Phase II, it important to highlight that the university is a local institution that will continue research and dissemination activities as most of the research is done on-farm. Through N2Africa, a lot of interest on grain legumes has been created among faculty and graduate and undergraduate students. This is the greatest hope we have – enhanced human capacity is the gateway to the future!

- We have produced three booklets on best practices in production of groundnut, soyabean, cowpea and common bean.
- The booklets have been distributed widely to extension and NGO partners. Beyond Phase II of N2Africa, the scientists that remain in Zimbabwe are committed to continue backstopping partners who will be implementing activities on grain legume production.
- The Zimbabwe Crop Science Society has recently been revised. This is a platform that we will use to disseminate N2Africa approaches to the society's members.



## 6. Status of exit strategies

Below matrix (when completed) gives summary of the status of the 3 main exit strategy drives and in relation to now and post project/sustainability. Complete the matrix using current available information. **Key: 1=achieved/will be; 0= not achieved/will not be; - not applicable**

Activity/goal	SPRL	AGRITEX	CADS	Seed companies (SeedCo, Agriseeds)	Legume buyers
Dissemination of technologies:	1	1	1	1	-
Capacity building	1	1	1	1	1
Inoculant availability <sup>1</sup>	1	1	-	1	-
Seed availability	-	-	-	1	0
Fertilizer availability	-	-	-	-	-
Inoculant Usage	1	1	1	1	0
Seed Usage	-	1	1	1	1
Fertilizer Usage	-	1	1	-	1
Inoculant Supply (supply chain Champion)	1	1	-	1	0
Seed Supply (supply chain Champion)	-	-	-	1	0
Fertilizer Supply (supply chain Champion)	-	-	-	-	-
Input Supply Info	1	1	1	1	-
Output Supply Info	1	1	1	0	0
Output market champion	-	-		1	1

<sup>1</sup> Availability means registered and sold





Inoculant Quality control	1	-	-	-	-
Inoculant R4D/Research to adapt	1	0	0	1	-
<b>Sustainability / post project</b>					
Dissemination of technologies:	1	1	1	1	-
Capacity building	1	1	1	1	1
Inoculant availability <sup>2</sup>	1	1	-	1	0
Seed availability	-	-	-	1	0
Fertilizer availability	-	-	-	-	0
Inoculant Usage	1	1	1	1	0
Seed Usage	-	1	1	1	1
Fertilizer Usage	-	1	1	-	1
Inoculant Supply (supply chain Champion)	1	1	-	1	0
Seed Supply (supply chain Champion)	-	-	-	1	0
Fertilizer Supply (supply chain Champion)	-	-	-	-	-
Input Supply Info	1	1	1	1	-
Output Supply Info	1	1	1	1	1
Output market champion	-	-		1	1
Inoculant Quality control	1	-	-	-	-
Inoculant R4D/Research to adapt	1	0	0	1	-

<sup>2</sup> Availability means registered and sold



## 7. Way forward: Strategic scenarios to close the gaps identified

Based on the matrix, indicate for each exit strategy drive, what remains to be done (gaps) and which strategic scenarios will be used to close the gaps?. Also indicate how this will include several scenarios that address factors, such as continuous dissemination of proven technologies; input supply chain; output market channels; etc.

### A: Access to inputs to drive future sustainable production

- Innovations in private sector to reduce production costs thereby making products affordable
- Collective action that results in critical numbers of farmers accessing services and inputs. Economies of scale will make technologies less costly

### B. Markets and processing

- Smallholder farmers have often failed to access large scale buyers, due to small volumes per transaction that are associated with large transaction costs.
- Further training in collective marketing and formation of viable community marketing associations is necessary

### C: Technology dissemination and partnerships

- AGRITEX needs more support from central government
- Seed houses need to increase the density of demonstrations plots of new innovations in grain legume production



## 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
102. N2Africa Project Malawi Exit Strategy
103. N2Africa Project Mozambique Exit Strategy



- 104. N2Africa Project Rwanda Exit Strategy
- 105. N2Africa Project Zimbabwe Exit Strategy



## Partners involved in the N2Africa project

