

Introduction to the N2Africa Master Plans

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The N2Africa Master Plans are documents intended to foster a common approach across the five Core Countries. So far seven master plans have been developed. These are Agronomy, Dissemination, Monitoring & Evaluation and Data Management, Rhizobiology, Communication, Gender and Innovation platforms. The plans are designed to achieve the N2Africa Vision of Success and the objectives set out in the Research Framework of the approved project proposal. This means all Master Plans need to ensure timely delivery of the outputs and outcomes.

We have focused considerable attention on developing Master Plans. During our 2014 Annual Review and Planning Meeting in Arusha, Tanzania we received inputs and feedback on all master plans from the N2Africa Advisory Committee and project staff. These feedbacks have been incorporated into the more recent versions of the Master Plans. We start using these Master Plans and improve on them based on feedback from the field.

- Agronomy Master Plan,
- Dissemination Master Plan
- Rhizobiology Master Plan
- Monitoring & Evaluation and Data Management Master Plan
- Gender Master Plan
- Platforms Master Plan
- Communications Master Plan

Fred Kanampiu

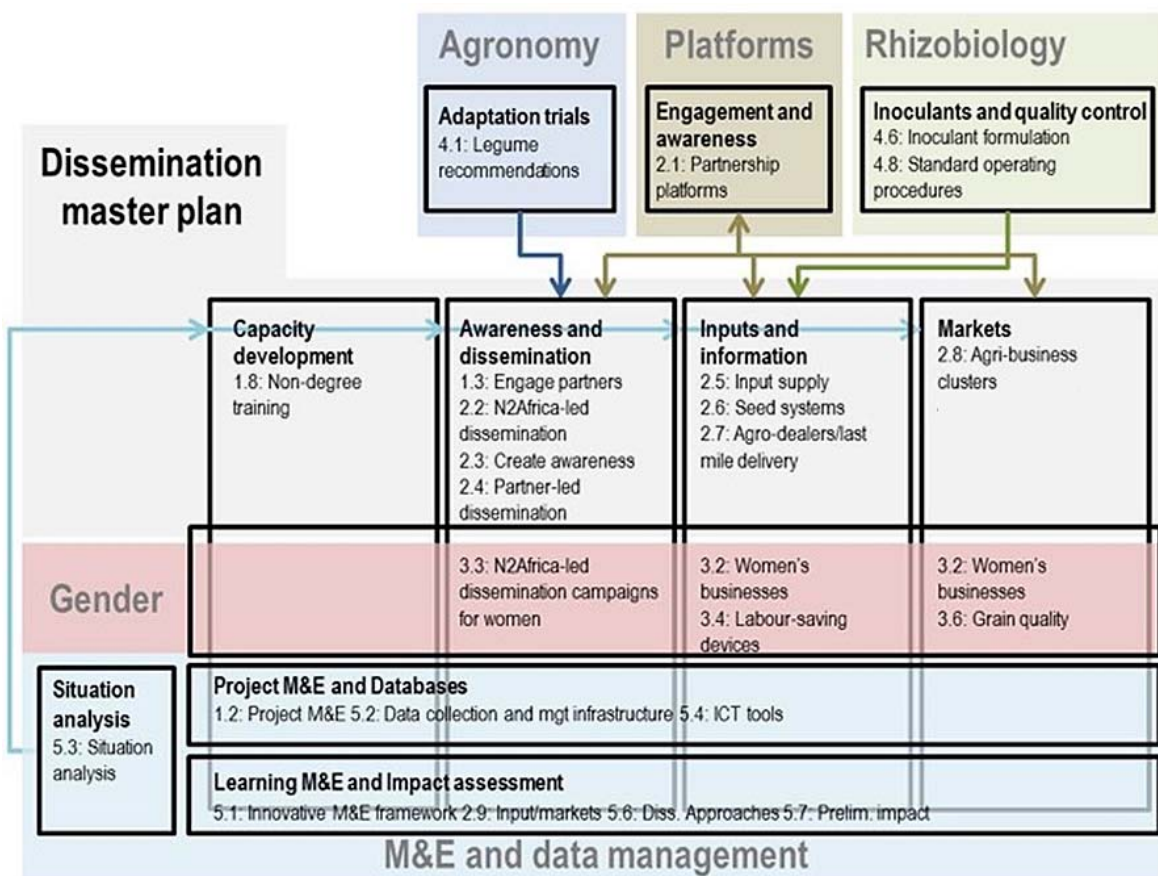


Fig. 1. The diagram of the of master plans showing the interactions among the plans

The N2Africa Agronomy Master Plan

The Agronomy Master Plan aims to create a common understanding of the guiding principles, key activities and timelines related to N2Africa's agronomic research. It directly addresses **objectives 2, 4 and 5** of the results framework, which



deal with dissemination, improving legume productivity and situation analysis, respectively. The most important goals are understanding the major constraints to legume productivity, identifying the causes of yield variability and finding technological interventions to reduce this variability. Agronomy within N2Africa is characterised by an emphasis on on-farm trials and the use of a wide variety of data-collection and survey tools to obtain reliable information on important agronomic and socio-economic variables.

The Agronomy Master Plan is structured around four activity clusters that consist of coherent sets of activities and tasks. The **diagnosis** cluster aims to identify the main biophysical constraints to enhanced legume productivity, primarily by on-farm trials across a wide range of environmental conditions. The **researcher-managed Agronomy** cluster consists of specialized agronomic trials meant to identify solutions to known constraints and to identify and remedy soils that show limited response to inputs. Within the **demonstration** cluster, on-farm, participatory technology evaluations are implemented to establish the performance of promising technologies and to serve as a platform for co-development and dissemination of new technologies. In the **adaptation** cluster, these technologies are evaluated by large numbers of farmers to determine their appropriateness for different farm types and conditions. Results obtained from the four activity clusters are meant to inform activities in subsequent seasons, thereby contributing to N2Africa's feedback loops.

Joost van Heerwaarden

Dissemination Master Plan

The Dissemination Master Plan outlines strategies to effectively engage public and private partners required for delivering the vision of success of N2Africa phase II. It directly addresses **Objective 2: Delivery and dissemination, sustainable input supply, and market access.**

The diagram in the introduction shows the linkages and interdependencies among the different master plans. Following the "Development to Research" approach of N2Africa, dissemination forms the core of the activities and leads the project from within. Given the ambition of N2Africa to reach more than 0.5 million smallholders within five years, partnerships are key to achieving this ambition.

Following the description of Objective 2, N2Africa is in part a legume value chain project of which dissemination of proven technologies is an important component. The project also considers achieving private sector led sustainable input supply systems on P-blended fertilizers, certified seeds and inoculants, market access for improved production, value addition to increase profitability and household nutrition and to address constraints in labour availability especially for women. The Master Plan is structured along 4 Pillars i.e. (1) Capacity Building, (2) Dissemination, (3) Input Demand Information and Supply and (4) Marketing.

In striving to achieve the above, N2Africa has the opportunity to leverage, seek synergies and complementarities with other legume value chain initiatives which comprise a melange of public and private sector actors willing to take up their required roles. The Dissemination Master Plan explains how to engage these actors and design meaningful and accountable partnership agreements, thereby making N2Africa an accumulation of partnerships whose targets total what the project aims to achieve.

Edward Baars

Rhizobiology Master Plan

N2Africa is committed to ensuring the best legume technologies reach smallholder farmers across sub Saharan Africa (SSA). The Rhizobiology Master Plan is specifically intended for core countries to address the rhizobiology component of **Objective 4: Tailor and adapt legume technologies to close yield gaps and expand the area of legume production within the farm.** It suggests a single and integrated rhizobiology research plan to instigate a common approach, which will lead to significant improvements on relevant issues such as the consistency in research designs, data collection to feed databases used for meta-analysis, amongst others, across N2Africa core countries. Other advantages of the MP include assurance of timely delivery of expected project outcomes / outputs.

The Rhizobiology Master Plan is built mostly upon lessons learnt from phase I, but also on achievements in legume technologies across SSA. While previous research efforts focussed on soybean, current evidence suggests that several other grain legumes (e.g. cowpea in Ghana and chickpea in Ethiopia) have great response potential to inoculation with rhizobia. Therefore, phase II will focus on bio-prospecting to identify new elite rhizobia strains for four other major grain legumes – common bean, cowpea, faba bean and groundnut. The aim is to isolate elite strains from nodules of each target crop and evaluate the potential of these strains to increase yields such that inoculation becomes worthwhile. Thus, any significantly better strain to come, using proper statistical methods to ascertain differences up to 10% at least, that is robust and stable under screen house and field conditions, could be advanced for inoculant production.

Meanwhile, when dealing with promiscuous legumes such as cowpea, that nodulate readily with soil native rhizobia, advances in inoculant technologies depend upon clearly understanding success or lack of success of inoculation. This requires competition studies of background populations of indigenous rhizobia and tracing the inoculant strains in nodules. Standard methods of molecular typing will be used to characterize the role the rhizobial genotype, from both soil and inoculant sources, in the $(G_L \times G_R) \times E \times M$ interaction, and its contribution to yield in farmer's fields.

The Rhizobiology Master Plan consists mainly of four activity clusters, each containing a set of activities involving specific tasks. These clusters are structured to ensure a relative flexibility that allows participating countries to adapt their rhizobiology plans to locally available facilities. Two activity clusters namely (1) Bioprospecting and (2) Identify elite strains, are expected to be implemented by almost all core countries; Two others, (3) Inoculant formulations and (4) standard operating procedures, will be implemented mostly by the inoculant factory at the central level. In addition, bridges are suggested between the Rhizobiology Master Plan and the others, especially with the Agronomy Master Plan, in order to ensure interactivity across N2Africa interventions.

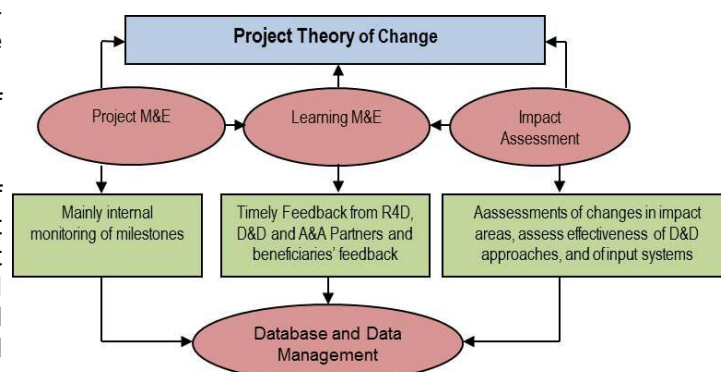
Mahamadi Dianda

Master Plan - Monitoring & Evaluation and Data Management

The M&E and Data Management Master Plan aims to provide guidance on the principles of how monitoring and evaluation is conducted in N2Africa. It allows for learning across all focal areas of the project, i.e. agronomy, rhizobiology, dissemination, platforms, gender and communications based on monitoring experiences, and makes adjustments and/or adaptations to the project implementation.

Given the objective of M&E in N2Africa (strategic framework allowing for learning, timely feedback loops and desired level of consistency in design (of research and dissemination), there are four components of M&E in N2Africa: project M&E, learning M&E, impact evaluation and data management. These components cut across the 5 objectives of the project and the entire project theory of change.

The diagram indicates the connections and interdependencies among the 4 components of the M&E plan and the theory of change. Given the objective of M&E in N2Africa, a structured M&E system that monitors the entire theory of change process is key to achieving this ambition.



Project M&E mainly is to guide the close supervision of on-going project activities, monitoring progress against agreed milestones/indicators to ascertain the achievement of the set targets. **Learning M&E** is the feedback obtained from R2D activities, demonstrations and adaptations led by N2Africa and from adaptation and adoption activities led by partners on the other hand in the form of partnerships and how such feedback is integrated into further actions.

With this, intended learning questions on technologies disseminated, dissemination approaches used and partnerships for dissemination will be answered through case studies, surveys, etc. Examples of learning questions include: What works where, why and for whom?, To what extent are technologies tailored to the needs of households?, Which of the dissemination approaches is effective (in terms of getting smallholder farmers to adapt and adopt technologies), To what extent are private sector actors involved in inoculant production and sales? **Project impact assessment** examines if and



to what extent the project activities actually benefited the intended recipients. The focus is on the efficiency, relevance, effectiveness, impacts and the sustainability of results and interventions.

The M&E and Data Management Master Plan finally outlines various strategies, processes and methods, roles and responsibilities to obtain and access data and information at various levels of implementation (i.e. beneficiary, partner, country and project levels). Such information is stored at central point (**central database**) for easy management and access.

Finally, various platforms (e.g. end of season evaluation with participating actors, planning sessions with partners, etc) have been outlined to obtain feedback from especially beneficiaries and how such feedback can be integrated in the R4D activities and other aspects of the project.

Theresa Ampadu-Boakye

Gender Master Plan

N2Africa recognizes the critical importance of women in legume production. The fact that their access to appropriate technologies and necessary resources is often constrained by gender and institutional barriers a **Gender Master Plan** is developed to identify and incorporate gender research and analysis, and other gender-related issues at all levels of project planning. We seek to identify interventions that will be spread over the time frame of the N2Africa Project and steer the efforts towards achieving gender- equitable impacts at all levels.

The **Gender Master Plan** directly addresses **Objective 3: To empower women and increase their benefits from legume production**. As gender is integral to all the other components, the **Gender Master Plan** interacts actively with all the other Master Plans and serves as instrumental guide to interrogate their objectives to ensure that specific gender concerns are captured. In other words, this plan has a cross cutting role to ensure that the necessary 'best fit' technologies to close the gender gaps on yields, income, nutrition, labour allocation and enhance gender and NRM responsive R&D capacity in the NARS. This includes documentation of whether key technologies developed are (or are not) benefiting women to the degree expected, particularly in terms of drudgery reduction, nutrition, and income.

The **Gender Master Plan** will be translated into action by bringing on board gender-based partner organizations with experience in agriculture research & extension to take the lead in implementing Objective 3. Major focus will be on further gender capacity strengthening activities following a training of trainers (TOT) approach (a Training Manual on Gender and Legume Value Chain has been developed). This will enable N2Africa to go beyond the technical training needs, develop a culture of gender inclusiveness, and eventually steer the combined efforts towards achieving gender-equitable impacts at all levels.

Amare Tegbaru

Platform Master Plan

The first phase of N2Africa demonstrated the possibilities for increasing legume productivity through use of improved inputs but there were unanswered questions around practicable delivery mechanisms for such inputs. Phase II addresses these questions through a stronger emphasis on partnerships with existing input suppliers and through development of organizational innovations to enhance input supply. These include PPP's for sustainable supply of inoculants and fertilizer, private-sector or community based legume seed system development, fostering the capacity of agro-dealers and establishment of agri-business clusters around legume marketing and value addition. The establishment of multi-stakeholder processes including platforms to facilitate such innovations is a core mechanism of N2Africa Phase II.

The broad aim of work under the Platforms Master Plan is to engage as a project in multi-stakeholder processes including stakeholder platforms to catalyse innovation around input supply for enhanced legume productivity. This is achieved through 4 activity clusters:

1. Mapping existing networks - This cluster identifies existing structures upon which N2Africa can build. This is to avoid duplication and diffusion of effort.



2. Engaging in existing platforms/networks - This cluster identifies key opportunities for action to achieve N2Africa goals and objectives through collaboration in multi-stakeholder processes.
3. Committing to actions in the interests of N2Africa as part of ongoing multi-stakeholder processes - This activity involves some practical steps to make progress on some key actions identified in Cluster 2.
4. Monitoring the outcomes of platform engagement - Learning is a key element of the platform process and a simple but systematic methodology for monitoring platform processes and the actions emerging from platform functioning is key to success. This activity cluster will involve systematic collection of simple indicator information to track effectiveness of platform engagement.

In summary, N2Africa's approach to multi-stakeholder platforms will be to engage as a strong partner in existing initiatives where possible. Through this engagement the project will identify and capitalize on opportunities to use platform processes to meet N2Africa objectives and will conduct some light monitoring of our engagement and the outcomes that emerge from this engagement.

Alan Duncan

Communication Master Plan

N2Africa focuses on knowledge generation and learning at all levels. Communication is thus central to our success as the sharing of new insights and approaches is key to the success of the project. Therefore we decided to develop a Communication Master Plan alongside our other Master Plans.

The approach to the development of the Communication Master Plan has been one of wide consultation and reflection both within N2Africa and with leaders of similar projects in both the public and private sectors. Essentially what we have learned from these discussions is that the external communication from N2Africa has been successful! The project is well known among both the research and development community in most of the countries where N2Africa is active as well as internationally.

However, we also felt that there is room for improving our internal communication. Besides sending our messages into the world, we need to focus on communication and sharing of ideas and knowledge within N2Africa. Given that the N2Africa project is developed around a model of iterative learning through feedback loops, internal communication is central!

The aims of the **Communication Master Plan** are fourfold: 1) To ensure alignment and common understanding of the N2Africa Theory of Change and the general philosophy underlying our approach; 2) To share continuous learning as part of the N2Africa feedback loops both among partners within countries and among countries; 3) To attract interest and new partnerships for N2Africa dissemination activities; and 4) To inform and share the excitement of N2Africa within target countries and beyond. We are still in the process of developing this plan and if you have advice on how best to fulfil these aims, particularly with regard to internal project communications, we would be pleased to hear from you.

What I have learned in my own career is that you can never do enough when it comes to communication! I think this is particularly true within large projects such as N2Africa and applies from sharing information with your closest colleagues to sharing essential knowledge with partners at all levels and in different countries. Our challenge is to move from a culture of pushing out information, to one where the people we want to communicate with are actively seeking the information we provide. This calls for action on both sides of the fence!

Ken Giller