M&E Workstream report

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Putting nitrogen fixation to work for smallholder farmers in Africa

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Preface

This document is reporting on the development and use of the M&E framework within the N2Africa project. While this milestone report was written quite some time ago and updated several times, due to various reasons, it was not published in the usual manner. In the meantime the indicators, M&E tools and framework have been in use since early on in the project and adjustments have been made in the course of time. We briefly reflect on how the M&E framework has been used in practice and draw some preliminary lessons as to the development and implementation of such an M&E framework.

1 Introduction

Activity 5 under Objective 1 is 'Monitor impact of investment and uptake of legume and inoculant technologies in the impact zones'. In first the instance, indicators for monitoring and evaluating progress of project activities and their impact were developed through stakeholder participation. This report briefly outlines the process (Milestone 1.5.1 'By month 6 of year 1 indicators for monitoring and evaluating progress with project activities and their impact are developed through stakeholder participation'). In conjunction, these indicators formed the basis of the comprehensive M&E plan of implementation that was developed with mechanisms and tools for data collection. The M&E plan is used to evaluate progress, make adjustments to implementation and assist in planning of subsequent activities (Milestone 1.5.2 By month 3 of years 2, 3 & 4 a monitoring and evaluation framework has been used for evaluating progress and planning subsequent activities during planning workshops) (see Table 1). Apart from an internal process for monitoring and evaluation an independent external review process has taken place which reviewed the internal M&E processes as well.

Table 1: Milestones under activity 1.5

Activity 1.5	Monitor impact of investments and uptake of legume and inoculant technologies in the impact zones.
Milestone 1.5.1	By month 6 of year 1 indicators for monitoring and evaluating progress with project activities and their impact are developed through stakeholder participation.
Milestone 1.5.2	By month 3 of years 2, 3 & 4 a monitoring and evaluation framework has been used for evaluating progress and planning subsequent activities during planning workshops.
Milestone 1.5.3	By month 6 of year 3 an external project review has been conducted, with representatives of the Bill & Melinda Gates Foundation.

Hereafter there is first a brief description of the process of development of indicators. Thereafter, the indicators are discussed and it is described how the overall M&E plan is being implemented, including responsibilities and data collection. Then there is a section on the feedback mechanisms that are to be facilitated by the M&E. Chapter 6 provides a brief overview of the status of what data has been collected so far. The report ends with a brief discussion section. Supporting documents are available separately as it is not possible to include all these as appendices to this report.

2 The process of development of indicators

The basis of the comprehensive list of indicators to be measured during the implementation of the project is the project proposal – mainly the "Vision of Success" – and more importantly the N2Africa milestone table.

As many stakeholders as possible have been involved in discussions and decision making with regards to the indicators that would measure performance and achievement of goals of the project. Discussions were held at the different launch- and planning meetings in the eight project countries. Additionally, there have been extensive discussions amongst N2Africa staff members and partner organisations within several countries. Towards the end of the process, one member of the Steering Committee made a significant contribution.

A complex project like the N2Africa project requires 'simple' yet meaningful indicators, that are realistic to be measured, and that are broad enough to encompass the diversity and complexity of the different activities across diverse sites across Sub-Saharan Africa. Yet, the indicators themselves and data collection need to be easy enough to be understood and used by all, ranging from researchers to extension staff and farmers. Reaching a balance was the biggest challenge in coming to agreement about the indicators to be measured.

Ideally, the M&E plan – including the indicators – would need to be adjusted to individual action sites and its co-operators, taking into account the detailed country-by-country action plans as well as the background characterization document (Milestones 1.2.1, 1.2.2, 1.2.5, 1.4.1). Therefore, in hindsight, the different milestones related to M&E should have been phased during a longer time period, for example at three-month intervals rather than concurrent as some rely upon other project developments and documents.

The overall M&E framework of the N2Africa project is aimed at enhancing learning from the monitoring of project activities, reflect and improve on the implementation and achievement of project goals. We do monitoring and evaluation not only because we need to report on our activities to the donor, but – perhaps more importantly – to understand what is happening in N2Africa and learn from that in order to improve the implementation.

The idea is that the information collected through monitoring – particularly monitoring of the dissemination activities, data collection from a representative sample of Lead Farmers and other farmers and findings from agronomy and rhizobiology research – would feed back into the planning and even design of dissemination activities and research in a subsequent season. Dissemination activities within N2Africa started right from the beginning based upon the premise that a lot of useful knowledge was already available to share with farmers in terms of improved legume varieties, fertilizer recommendations, inoculants and agronomic practices. At the same time, research was initiated in the areas of agronomy and rhizobiology, focussing on enhancing BNF potential of legumes through inoculation, targeting varieties, specific fertilization practices, and other agronomic management practices. Findings from research are to feed into dissemination strategies, while observations, experiences and questions from dissemination are to feed into research. As such, the research is to address issues from the development efforts of the N2Africa project.

In addition, we also need to assess the process of monitoring and evaluation of the project activities in development and research. This means that we also learn from our M&E experiences and will adjust the tools, mechanisms and even indicators if necessary.

3 Overview of indicators

Table 2 lists all indicators that are being monitored to assess progress of the project. Agreement of these indicators had been reached before the end of year 1 of the project. The table also indicates how the information for the indicator is being collected, the timing of information collection, and the responsibility for data collection. All the tools that have been developed to collect some of the information for the indicators in Table 2 are gender-sensitive. An overview of the tools developed and currently used is also listed in Table 3.

The indicators as listed (Table 2) are quite diverse in terms of what is measured and what is needed to collect the required data. Another differentiating factor is the frequency in which the data is collected. For example, income is challenging to measure and does not change very quickly over time. It is important to keep in mind that these indicators are the minimum set that was agreed upon and the information collected through these indicators do not reflect all project activities nor is the data collected for these indicators sufficient to provide all details required for milestone reports. The objective of measuring these indicators is to be able to assess progress of the project to its overall objectives and to learn.

Table 2: Overview of Indicators

No.	*Indicators*	*Tool/ source of info*	*Frequency / timing*	*Responsibility/ Lead Person*	*Notes*
	Global synthetic indicators				
1	Income	Baseline & endline survey, student research	Beginning and end of project	M&E scientist & Farming Systems analyst	This concerns income derived from cultivation of legumes. End survey: West Africa=Jan-March 2013, Southern Africa=April-June 2013, Central Africa=June-Aug 2013 Explore options to engage students for more detailed case studies; Farming System analyst to facilitate student recruitment in Wageningen
2	Planted areas, productivity & BNF	Tool: Field Book for Technology Evaluation	1x per season	Farming Systems analyst & Agronomist to lead	In Central-East Africa, we used a version that was based on what had been used in the CIALCA project, an adjusted version implemented in West Africa (season 2011), adjusted again for use in 2011-12 season in Southern Africa. Need for quick feedback mechanism. Farming System analyst to elaborate on Detailed Farm Characterizations (DFC) contribution to this indicator
	Supply-side counting (Indicators on dissemination activities & number of farmers reached)				
3	Number of farmers receiving inputs from N2Africa through partners	Tool: Input distribution	1x per season	FLO to coordinate data collection & data entry	Important to determine the actual number of farmers who have received inputs (and thus have been reached), and at the same time this database is used to sample farmers for the Field Book. Ideally, the information needs to be available directly after inputs have been distributed.

4	Number of field days	Tool: Field days recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners to collect data, FLO is to coordinate and provide data to M&E scientist
5	Number of N2Africa D&D plots established	To be derived from input distribution data (to be confirmed by FLOs)	1x per season	FLO to coordinate data collection & data entry	D&D partners with FLO. By mid-season info to M&E scientist
6	Number of training events	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO, National/Country Coordinator involved as well to ensure training other than training to farmers is captured
7	Number of dissemination materials produced & distributed	Tool: Seasonal checklist Tool: Distribution of publications	Continuous, collate at end of season	D&D specialist FLO to coordinate data collection & data entry	D&D specialist and Leader of Capacity Building to be involved. Before end of season info to D&D specialist, analyse and plan for additional needs for next season.
	Indicators on components use				
8	Number of farmers using improved varieties	Tool: Field Book Tool: Use Survey for progressing N2Africa farmers	1x per season	Field Book: Farming Systems analyst & Agronomist to lead Use survey needs country specific implementation strategy, coordinated by FLO	In addition, we need to get information on quantity and availability of seed, possibly from supply channels info, see below.
9	Number of farmers using inoculants	Tool: Field Book Tool: Use Survey for progressing N2Africa farmers	1x per season	Field Book: Farming Systems analyst & Agronomist to lead Use survey needs country specific implementation strategy, coordinated by FLO	Explore options to get additional information from producers.

10	Number of farmers using P fertilizer	Tool: Field Book Tool: Use Survey for progressing N2Africa farmers	1x per season	Field Book: Farming Systems analyst & Agronomist to lead Use survey needs country specific implementation strategy	Explore options to get additional information from producers.
11	Number of farmers using different kinds of adhesive	Tool: Field Book Tool: Use Survey for progressing N2Africa farmers	1x per season	Field Book: Farming Systems analyst & Agronomist to lead Use Survey needs country specific implementation strategy	
12	Number of farmers using 'improved management'	Tool: Use Survey for progressing N2Africa farmers	1x per season	Country specific implementation strategy, assistance from Agronomist	Knowledge intensive management practices: Planting in rows, plant spacing, pest management (cowpea), novel staking methods for climbing beans, seed/grain storage methods. Follow-up with (qualitative) assessment of farmers' use of these management practices and whether these result in new/adjusted recommendations to farmers.
	Results of the use of components (linked also to indicator no.2)			**Most will come from Field Book & Use Survey**	
13	Number of farmers increasing acreage planted to legumes	Tool: Use Survey for progressing N2Africa farmers Agronomic data collection in D&D trials and End line survey	1x per season	FLO & M&E scientist to develop country specific strategy	It is still early to measure this meaningfully. An early indication of this will come from the use survey to be conducted in all countries and from End line survey.

14	Number of farmers increasing BNF and increase in on-farm BNF	Tool: Use Survey for progressing N2Africa farmers Agronomic data collection in D&D trials and End line survey	1x per season	FLO & M&E scientist to develop country specific strategy	While Use Survey and info from D&D fields has been used, the final number of farmers increasing BNF will be assessed after end line survey only.
15	Number of farmers increasing grain legume yield	Tool: Use Survey for progressing N2Africa farmers Agronomic data collection in D&D trials and End line survey	1x per season	FLO & M&E scientist to develop country specific strategy	In some places the Use survey has not been implemented correctly, it is challenging to extrapolate from this survey to a overall number of farmers increasing grain yield.
16	Number of farmers increasing yield of rotational crop (following the grain legume) (or intercrop).	Tool: Use Survey for progressing N2Africa farmers Agronomic data collection in D&D trials and End line survey	1x per season	FLO & M&E scientist to develop country specific strategy	While Use survey and Field Books were used, it is only after end line survey it will be possible to assess this indicator (possibly only to some extent).
17	Number of farmers that have adopted improved legume production methods without direct contact to N2Africa (cq intervention)	End line survey			End line survey will include info on where people got info & inputs from, if not through N2Africa, we will find out. We will aim to develop some detailed studies to assess whether non-facilitated uptake has taken place.

	Supply channels indicators (part of D&D strategy) (Quality that farmers want & need, quantity, accessibility (including prices, barter))				
18	Number of channels which supply inoculants to farmers	Collected once with assistance from FLO, local experts & value chain analyses, then updated.	Collected once, thereafter update once per year	FLO	Assess channels, which channel is good for which farmers and at what cost
19	Number of channels which supply new legumes varieties to farmers	Collected once with assistance from FLO, local experts & value chain analyses, then updated twice per year.	Collected once, thereafter update once per year	FLO	Assess channels, which channel is good for which farmers and at what cost
20	Number of channels which supply P fertilizers	Collected once with assistance from FLO, local experts & value chain analyses, then updated twice per year.	Collected once, thereafter update once per year	FLO	Assess channels, which channel is good for which farmers and at what cost
21	Prices	To be collected with assistance from FLO, local experts & value chain analyses	Regular updates (e.g. 2x per year).	FLO, M&E scientist, Farming Systems analyst	FLOs are contacted to assess country specific available info, M&E scientist is collecting national data sets following the goods as previously specified (legumes, inputs).
22	Quantity of seed produced (and quantity available for purchase)	To be collected with assistance from FLO, local experts & value chain analyses	1x per season	FLO	Info from known supply channels
23	Quantity of inoculants produced (& available for purchase)	To be collected with assistance from FLO, local experts & value chain analyses, regular updates	1x per season	FLO	Info from known supply channels

24	Quantity of fertilizers available for purchase for smallholder farmers	To be collected with assistance from FLO, local experts & value chain analyses, regular updates (eg 1x per year).	1x per season	FLO	Info from known supply channels
25	New commercialization opportunities for legume (/legume products) identified	From value chain analyses implemented in the 8 countries	Collected once, thereafter update once per season	Economist IITA, updates from National Coordinators & FLOs	Added info from other projects and other initiative in-country
26	Number of links/collaborations established with end-product buyers (incl processors)	Value chain analyses, resource people	Collected once, thereafter update once per season	Economist IITA, updates from National Coordinators & FLOs	Check other projects & initiatives
	Policy				
27	Identify changes in policies toward access of pro-smallholder farmers to legumes seed and inoculants (positive & negative)	Rhizobiologist	Once, then updated once per year	M&E scientist to collect from Leader of Rhizobiology	It will be hard to attribute policy changes to the project
28	Regulations of legume varieties and inoculants (cross border movements)	Rhizobiologist	Once, then updated once per year	M&E scientist to collect from Leader of Rhizobiology	
	Impact indicators at scientific level				
29	Number of legume varieties of each crop screened for BNF	Project agronomist	Collected, thereafter update once per year	M&E scientist to collect from Leader of Agronomy	
30	Number of improved grain legume varieties identified	Project agronomist	Collected, thereafter update once per year	M&E scientist to collect from Leader of Agronomy	

31	Number of rhizobial strains isolated and screened	Project rhizobiologist	Collected, thereafter update once per year	M&E scientist to collect from Leader of Rhizobiology	
32	Number of improved rhizobial strains identified	Project rhizobiologist	Collected, thereafter update once per year	M&E scientist to collect from Leader of Rhizobiology	
33	Number of strains stored in culture collection	Project rhizobiologist	Collected, thereafter update once per year	M&E scientist to collect from Leader of Rhizobiology	
34	Number of scientific publications	Tool 24: Scientific publications data recording	Collected, thereafter update once per year	Project Admin & M&E Scientist	
	Agronomy trials				
35	Number of trials established	Leader of Agronomy	1x per season	M&E scientist to collect from Leader of Agronomy	Tool: Overview agronomy trials While being numeric indicator, it is the results of the trials Ideally, there is also need to assess the results of trials established (including cost benefits)
36	Number of trials evaluated by farmers	Leader of Agronomy	1x per season	M&E scientist to collect from Leader of Agronomy & other responsible person(s) in-country	This needs some adjustment to capture not just numbers but also some qualitative assessment. Responsible person in-country to be involved (FLO, Agronomist and/or research assistant to be recruited)
37	Number of recommendations developed for D&D (including packages, dissemination tools)	Leader of Agronomy & D&D scientist	1x per season	M&E scientist to collect from Leader of Agronomy and/or D&D specialist	Number of recommendations developed for D&D (including packages, dissemination tools), together with D&D specialist
	Impact capacity building				
38	Number of people trained	Tools on capacity building			

a	PhD	Tool: Capacity building Students	Update twice per year	Leader Capacity Building	Nairobi office to update the information into the provide data collection sheets
b	MSc/Mphil (BSc, BA)	Tool: Capacity building Students	Update twice per year	Leader Capacity Building	Input required from Wageningen and country coordinators
c	Technicians	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO, National/Country Coordinator involved as well to ensure we capture training other than training to farmers
d	NGO & extension staff	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO, National/Country Coordinator involved as well to ensure we capture training other than training to farmers
e	Lead farmers	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO
f	Farmers	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO
g	Agro-dealers	Tool: Training events recording form	Continuous, collate at end of season	FLO to coordinate data collection & data entry	D&D partners with FLO, National/Country Coordinator involved as well to ensure we capture training other than training to farmers
	Other impact				
39	Media interactions/events	Tool: Recording media Interactions	Continuous, collate 2x per year	M&E scientist to collect from National Coordinators & FLOs. Everyone to contribute	Is there a role for communication specialist?

4 Operationalizing M&E

While discussions to reach agreement on indicators were on-going, project staff began to develop tools to collect the information on certain indicators. The Field Book for technology evaluation relies heavily on a similar booklet used within the CIALCA project. The tools have been reviewed by N2Africa project staff and implementing partners. In addition, advice has been sought from some experts and all tools have been made gender sensitive. Tools are collecting more information than just the numbers and provide opportunity to give qualitative feedback. Following continuous discussions and assessment of feasibility of implementation of the tools, the meeting of Farm Liaison Officers (FLOs) in Nairobi in May 2011 concluded on the final content of the tools (see Table 3). For all tools data entry forms have been made available[1].

Table 3: Tools and guidelines for monitoring selected indicators

Tool
Seasonal Checklist
Inputs distributed Version A-Packages
Inputs distributed Version B-Amounts
Field Book for Technology Evaluation – update Dec 2011
Guidelines Field Book for Technology Evaluation – update Dec 2011
Lead Farmers Assessment
Field days Recording Form
Training Events
Publications – Distribution Individuals
Publications – Distribution Organisations
Use Survey progressing N2Africa farmers
Guidelines for Use Survey
Media interactions
Attendance register (General)

This meeting of Farm Liaison Officers in Nairobi was called to further integrate the D&D and M&E. The FLOs play a crucial role in both D&D and M&E at country level. The meeting was meant to ensure all FLOs had the same understanding in terms of implementation of D&D activities and discuss the implementation of the different M&E tools.

The meeting was effective in creating a platform of FLOs cutting across the countries. It was considered to be most valuable to be able to share experiences from their work. Moreover, the tools developed were discussed in detail and adjusted following these discussions. Apart from the content of the tools (what sort of data could be collected what is feasible, etc.) the actual data collection process and responsibilities were discussed. In general, the FLOs felt comfortable implementing the tools. It was made very clear that taking responsibility does not mean that a FLO actually has to collect the data him/herself. For example, data may well be collected by partner organisations. Possibly the N2Africa staff might have to assist with the data entry and facilitate hiring assistance for data entry. The main challenge was perceived to be the collection of soil samples for the Field Book. It was also suggested that there are

[1] Tools can be made available through the project office.

alternative ways to assess soils rather then collecting soils and having these tested for chemical properties[2].

The project agronomist and farming system analyst have taken responsibility for implementation of the Field Book. Currently the in-country agronomists are to collect the data for this tool which will lead to further integration of research and D&D. Resulting from a supplementary grant from the Bill & Melinda Gates Foundation an additional staff member is/will be recruited in each country to assist in the collection of agronomic data. A full update of the implementation of the Field book in the different countries may be obtained from the project agronomist and farming system analyst in Wageningen. A discussion to evaluate the use of the Field Book was held in Kano, Nigeria in the first week of November 2011.

For the indicators 18 up to 26, the M&E scientist has developed a document for the Farm Liaison Officers to guide them in the data collection.

Late July 2011, the Project Coordinator made a separate budget available for the M&E for each country (see Table 4). This information has been shared with (acting) country coordinators and Farm Liaison Officers. Whatever was not used in year two, can be moved forward to year three. It is becoming clear that the funds are often not available at country level and do not reach the implementers which seems to be seriously hindering implementation. The budget is not for the exclusive use of the Farm Liaison Officers, but it is to enable them, for example, to facilitate data collection by partner organisations and hire temporary staff for data entry.

Table 4: Funds available for the implementation of M&E in each country

Country	Year 2 travel	Year 2 supplies	Year 3 travel	Year 3 supplies	Total
	Year 2 ends 31 October, 2011		*Year 3 starts 1 November, 2011*		
Kenya	13,000	8,000	13,000	8,000	42,000
Rwanda	9,000	5,000	9,000	5,000	28,000
DR Congo	9,000	5,000	9,000	5,000	28,000
Zimbabwe	8,000	4,000	8,000	4,000	24,000
Malawi	8,000	4,000	8,000	4,000	24,000
Mozambique	8,000	4,000	8,000	4,000	24,000
Nigeria	14,000	8,000	14,000	8,000	44,000
Ghana	14,000	8,000	14,000	8,000	44,000
	83,000	46,000	83,000	46,000	258,000

In general, the Farm Liaison Officers have taken responsibility for the data collection in-country. In Mozambique, the three technicians in the three project areas have been sensitized as well as their supervisor in Nampula. In September 2011 a trip was made to Mozambique together with the D&D specialist in order to meet with the technicians who are working on D&D and M&E. A follow-up visit will be made to Mozambique during the upcoming agricultural season. Another trip was made to Ghana (2011), again in collaboration with the D&D specialist. There was very useful interaction with the Farm Liaison Officer, the agronomist /coordinator, extension workers, partners and farmers during this visit. In Kenya, a NGO has been engaged to implement the M&E. So far the staff involved has been confident and capable in the implementation of the M&E.

[2] A report of this meeting of Farm Liaison Officers in Nairobi can be made available through the project office.

Information for the indicators on policy, rhizobiology and agronomy research is provided by the objective leaders concerned, i.e. for rhizobiology and agronomy. Indicators related to capacity building can be separated in two; on the one hand there is the capacity building related to farmers and farming activities and includes the agricultural extension staff and agro-dealers. This data is collected in each country by Farm Liaison Officers and Country Coordinators. On the other hand there is research capacity building in the form of N2Africa scholarships for Master and PhD students. Related are other students who are participating in the project; for example as interns or who do research for a degree.

In summary, the implementation of the M&E is not a one-size-fit all for all countries. In some cases data collection may be rather country specific, depending on local circumstances and available capacity. At the same time we are striving to collect data with a 'good enough' level of uniformity as to allow us to compare across countries, analyse different impact zones, etc. The Farm Liaison Officers are fully engaged and there is continuous follow-up with FLOs.

5 Development-to-Research: M&E facilitating feedback

5.1 Results received

The current report is not meant to provide detailed data that have so far been collected. Here an overview will be given of the kind of information that has been collected so far. There are separate M&E country reports available for all countries.

The leader of Agronomy has provided data on the agronomy research, for example trials established and the varieties identified. In Rwanda, the Farm Liaison Officer has facilitated the participatory evaluation of all variety and four of the input trials by farmers, the data is being compiled, some data of the past season is available. In Kenya, trials have also been evaluated by farmers and the data is being compiled. In other countries such participatory evaluations will have to be initiated. Although there is interaction between research and D&D, it is considered to be too early to actually count the number of recommendations developed from the research for D&D.

The leader of rhizobiology has put together an overview of the data on the indicators related to policy, regulations and rhizobiology available so far. Some gaps are identified and will be followed up.

Data on capacity building with regards to the students who are on an N2Africa scholarship are well recorded by the Nairobi office according to the data sheets provided by the M&E scientist. In addition, there are numerous students who are in another way participating in the project. This information has been provided by Country Coordinators and has been compiled by the M&E scientist. The responsibility of the collecting of updates has been handed over to the leader of capacity building.

Farm Liaison Officers have begun to provide data on the tools distributed to them. For East-Central Africa data from past seasons has been made available, mainly from Kenya. For the indicators 18 up to 26, the M&E scientist has developed a document for the Farm Liaisons Officers who collected the information, which will be updated shortly.

5.2 Development-to-Research

The M&E within the N2Africa project is aimed at provided information for reporting of progress towards objectives and accountability to the donor. At the same time, we aim to enable learning and thus constantly improving the operations of the project – both in terms of adaptive research and dissemination of legume technologies. As a consequence there is need to provide fast feedback from the implementation of project activities back to D&D and research – in order to be able to adjust D&D and make sure research implemented is actually addressing farmers' needs.

With regards to feedback, research should provide quick feedback in order to provide input to ensure what is being done in D&D is appropriate. Hence within the project there is not *one* feedback loop from M&E to D&D and research. M&E facilitates the different feedback loops between D&D and research as well as the learning within the project. Dissemination and development are at the core of the project, M&E provides the learning and the research within the project analyses and feeds back into the D&D (see Figure 1); M&E connects D&D and research.

It is only fair to report that the implementation of M&E in its diverse forms and feedback strategies are giving mixed results. The biggest bottleneck is in the speed of data flows –

particularly on agronomy and dissemination – from country teams to the M&E scientist, Farming System Analyst and other scientists in the project although there is quite some variance between different countries as well as with regard to the various data requirements.

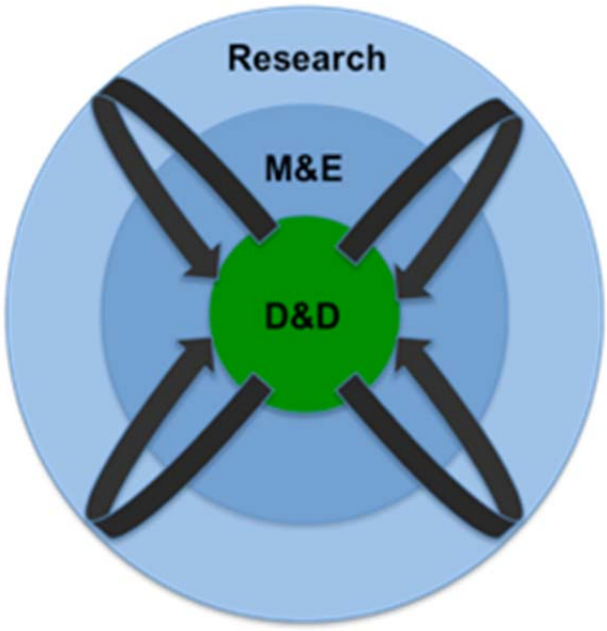

Figure 1: Linking D&D, M&E and research in N2Africa

In theory, the M&E could be able to provide feedback to D&D even as the season progresses, but all depends on the swiftness with which the information is collected and supplied. As an example we have seen that the percentages of women participating in different project activities, varies a lot between the different dissemination activities of the project. Oftentimes they are well represented in input distribution, but the percentage of women decreases if we look at for example the number of Lead Farmers (or Master Farmers) and participation in training. If a country team would be more conscious of this, supported by analyses of the input distribution data, they could work more towards ensuring a representative and thus adequate percentage of female participants in trainings.

Other tools consolidating information on dissemination activities have proven to give useful insights for country teams, for example in the difference in performance of different partner organisations, engagement of women in different activities, costs of activities, to name a few.

Another major element of the feedback mechanism should have been the agronomy trails and Field Book data. The findings from agronomy trials inform the dissemination campaigns in the subsequent season. Often the agronomy data takes long to be available for analyses and therefore feedback from the trials is frequently done in a more informal manner at country level, for example based on observations with regards to the performance of particular varieties, fertilizer application, etc.

The Field Book could be regarded as agronomic data collection of trials managed by farmers and as such would also provide valuable information to research and dissemination. Although analyses have proven to be quick, it is the collection and preparation of the data in the countries that takes more time than had been anticipated.

In the Development-to-Research approach (see also Figure 1), the issues and questions for research are – at least partly – generated by dissemination. In practice this means that farmers, extension staff and Farm Liaison Officers should identify and articulate the most relevant research questions and issues. We have however observed that these people will need to be more empowered to fulfil this role and act more as “information seekers”.

Although in general Farm Liaison Officers are well aware of their role and responsibility in the implementation of M&E and have shown commitment, data flows have repeatedly been rather slow. In the course of time, the promptness of data delivery remains a serious challenge. No country team has proven to be completely up to speed for quick data delivery. For the countries with one agricultural season per year (Ghana, Nigeria, Malawi, Mozambique, Zimbabwe), there is more time to take account of data of the previous season before planning of the subsequent season starts. However in the countries with two rainy seasons per year (bi-modal rainfall), cultivation is almost continuously and activities in one season are often closely linked to activities in the following season (e.g. in terms of ration

patterns), it has proven to be impossible to make the feedback mechanism fast enough between long rain and short raining seasons. Furthermore we often find that country teams use their own ways of documenting activities and reporting and as a result still consider the M&E data requirements as an addition to their work rather than supporting their data collection and reporting activities. Possibly the centralized nature of the N2Africa M&E framework is not ideal in the circumstances.

Although the indicators themselves are quantitative, a lot of the tools provide space for qualitative feedback on the implementation of activities. Moreover, resulting from frequent communication and visits there are valuable insights into the running of the project, what is not going well and what needs to be done differently and how things can be done differently. Although this is where a lot of the learning is already taking place, these qualitative and unstructured assessments are possibly the most difficult to capture in a structured manner. Communication between M&E scientist and D&D specialist did facilitate this, though it might need to be considered to be done more structured and this is further hampered by the departure of the D&D specialist from the project.

Planning meetings at country level should be used as platforms to exchange the lessons learned and consolidate these into plans for the upcoming season; perhaps with more active engagement of senior project staff these processes would have been better captured and capitalized on.

As alluded to in the early part of this report, it was challenging to reach a balance in the development and agreement on the indicators for monitoring between ‘simply’ enough indicators and yet indicators that would prove to be broad enough to incorporate the diversity and complexity of N2Africa as a development-to-research project. While M&E could facilitate communication and exchange between research and development, between researchers and farmers, between different countries, and more, we have probably not explored this enough.

For researchers the indicators in the M&E framework were possibly not detailed enough, while others might consider the data collection to be too detailed. There were some complains about the data collected – mostly in the area of dissemination. It is however important to realize that certain information collected is also necessary for accountability to the donor; as a project we need to know who benefitted from our interventions to be able to accurately report to the donor.

At times there might have been need for a more country specific approach. However, due to the lateness of data coming in often there was no time to elaborately revisit M&E data collection tools before the start of a new season.

6 Conclusion

The indicators for the monitoring and evaluation of the N2Africa project have been developed through a participatory process engaging numerous different stakeholders. The indicators are considered to be sufficiently rigorous enough to track project progress in eight different countries and yet it is feasible to be monitoring these by the different staff members and partner organisations – not overload people. We hope it will enable the project to make project-wide comparisons across countries. Despite the thorough and participatory nature of development of the indicators, the N2Africa project will continuously assess the indicators and the mechanisms and tools for data collection to determine the need for adjustments over time.

Experience has shown that there is an important challenge in the speed of data collection, entry and delivery to the centralized M&E system. A lot of the data entry is only done after the agricultural season is over. Particularly in East-Central Africa where there are two seasons this is problematic as there is too little time between seasons. It is apparent that data entry does take considerable time and is mainly done after the season is over.

Although a lot of information is being collected through measurement of the indicators, it should be apparent that the information from the indicators alone is inadequate to generate milestone reports as such. This can be partly explained by the focus on participatory development of indicators; in short every one wants their own area of work to be well covered by indicators, yet there is resistance to continuous monitoring of a larger set of indicators! Also milestones are more descriptive and should describe a path of activities that will help us to achieve the objectives of the project, rather than ‘simply’ counting certain activities, numbers of students, etc. In addition, often M&E data could not yet be used in half-yearly country reports, due to the fact that it had not yet been made available from the country to the M&E scientist. If timing of different reports were different, M&E data could assist a country team a lot in compilation of the reports.

It is a valuable lesson learned to aim for closer integration between the different data collection and reporting mechanisms within the project.

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. Grain legumes and fodder legume materials 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

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