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18-19 June 2012, Harare

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N2Africa

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



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1 Introduction

On Monday and Tuesday 18 – 19 June 2012, an N2Africa Review & Planning meeting was held in Zimbabwe. This meeting was focussed on the Dissemination & Delivery in Zimbabwe: considering the challenges faced by D&D in terms of the target numbers of farmers to be met in the 2012-13 season we wanted to concentrate on D&D, getting everyone involved in D&D together, think and strategize together, particularly in the light of increasing sustainability of impact of our activities and diversifying D&D strategies beyond the Lead Farmer model.

All districts where N2Africa is implemented were represented by two people from partner organisations. In addition, we had representation from the IFAD-funded project 'Increasing smallholder farm productivity, income, and health through widespread adoption of Integrated Soil Fertility Management (ISFM) in the Great Lake Regions and Southern Africa' that collaborates closely with the N2Africa project. Also the project D&D specialist, Anne Turner, attended this meeting.

At different times, we watched a few short movies from N2Africa. The first one was on soymilk production in DRC – participants were immediately interested in the precise recipe! On the second day we watched 'I eat' and 'I store' which were shot in Nigeria. Although the short movies are accessible through the N2Africa website (www.N2Africa.org), we have to acknowledge the challenges with that in Zimbabwe at present due to slow internet connectivity.¹

At the onset of the meeting, the N2Africa country coordinator gave a brief opening speech and reiterated the purpose of the meeting which was communicated to the participants prior to the meeting. The purpose of the meeting was to:

1. To evaluate the past season 2011-12.
2. To come up with draft plans for coming 2012-13 season.
3. To develop plans for partnerships with private sector for input procurements by farmers (e.g. on credit).
4. To come up with detailed district-specific D&D strategies for the 2012-13.

¹ The first series of videos were made available through DVD. A few copies have been made available to partners. It might be helpful to make the later ones also available on DVD.



2 Presentations by D&D partners

In order to be able to make the most of the 1.5 day meeting, the partner organisations had been given guidelines for their presentations. The guidelines specified the time available and the expected content of the presentations. We discussed most of the presentations with partners before the actual meeting (see Box 1).

These efforts resulted in the presentations by partners being focussed, concise, informative and stimulating.

At the end of each partner's presentation, participants had the opportunity to ask questions that sought further clarification. Points for discussion were kept for the plenary session which came after all partner organisations had presented.

During the presentations two people from the conveners of the meeting, kept track of 1) major achievements, 2) major challenges, 3) innovations, and 4) how to reach larger numbers of farmers in 2012-13 season.

Guidelines for presentations from D&D partners

Please pay attention to the following guidelines in preparing your presentation.

1. *The total time allocated for your presentation is 10 minutes.*
2. *Your presentation should focus on the following questions:*
 - A. *What were your main achievements for the season 2011/12?*
 - B. *What challenges did you experience and how did you go about them?*
 - C. *What innovations have you made in doing your work? (And/or what do you think other can learn from your experiences?)*

Looking forward, how do you think we can reach more farmers in your district next season?

To be able to facilitate fruitful discussions, we would like to ask you to send your presentation to us on or before the 6th of June.

Box 1: Guidelines for presentations by D&D partners

2.1 Guruve district – LGDA

The Lower Guruve Development Association (LGDA) joined the N2Africa project as from the 2011-12 season. They picked up from CLUSA activities and continued implementation of N2Africa activities in 6 wards in Guruve (Wards 5, 7, 15, 16, 18 and 23).

LGDA is a Community Based Organisation whose origin dates back to 1984 when it evolved as donor funded program. It is a membership organisation and was officially registered in 1991. The mission statement of LGDA is as follows: "To ensure that vulnerable communities in Mbire, Guruve and Muzarabani Districts attain sustainable livelihoods through the use of participatory development methodologies in partnership with all relevant stakeholders". LGDA's Core values are the following: selfless leadership, equality and fairness, respect for indigenous knowledge, accountability and transparency, respect for diverse opinions and views. The programmes of LGDA are mainly centered on livelihoods and health.

Progress to date:

Selection of Beneficiaries: The program registered 1000 new beneficiaries (50 were Lead Farmers). LGDA also took on board 304 farmers from the previous season (2010-11).

In this 2011-12 season, LGDA engaged 1000 new farmers who benefitted from N2Africa input distribution. In addition, through additional funding from IFAD, 304 farmers who had been participating in the 2010-11 season, benefitted from input distribution in order to increase production levels with a bid to improve their saleable surplus.



Input Distribution: Inputs were distributed on the 19th and 20th of November 2011. The packages were allocated according to the farmer's category and crop type. New Lead Farmers received 5 kg of seed of the particular crop they were growing (cowpea 2.5 kg). This went hand-in-hand with the fertilizer and rhizobium. The other farmers received 1 kg of the particular crop they were growing (cowpea farmers received 0.5 kg of seed). Groundnut farmers also received gypsum besides the SSP and lime. The farmers from the previous season are now stimulated to produce for commercial purposes through the IFAD-funded project. Of these farmers, 204 farmers received 5 kg of sugar beans, 100 received 5 kg of soya beans, all received rhizobium and SSP.

Lead Farmers Trainings: Two trainings for Lead Farmers were done in November 2011 and in May 2012 on Legume Production and Marketing respectively. Officers from Agritex, CIAT-N2Africa and LGDA conducted the trainings.

Establishment of trial plots: Two trial plots were established in wards 5 and 7. Initially the project had planned to establish 4 trial plots but the erratic rainfall pattern was a hindering factor towards the establishment of the plots. Selection Criteria for trial plot owners: 1) Easy access, 2) A plot with uniform soil characteristics, 3) The plots were expected to measure 20m x 40m. The plots were planted on the 18th and the 19th of January 2012 respectively.

Forage Crop Production: The project also established 6 trial plots for livestock forage crops. This project is targeting dairy farmers of Guruve District. Six varieties of *Leuceana* were established on six plots. The criterion for selection of host farmers for these trials was based on the ability to provide security measures for the trial plots against domestic livestock.

Field days: A total of six field days (one in each ward) were conducted in March. A total of 770 farmers attended (333 men and 437 women).

LGDA works closely with the 'youth officers' in the district from the Ministry of Indigenisation and Youth Development. Although the role of youth officers differs from one district to another, the youth officers in Guruve district act as development facilitators.



Table 1: Challenges & solutions, LGDA, Guruve district, season 2011-12

| CHALLENGE | SOLUTION |
|--|---|
| The erratic and inconsistent rainfall forced 80% of the beneficiaries to delay planting. | Some farmers used moisture conservation methods such as tied ridges to minimize water losses through run off. |
| Inadequate soil moisture affected the application of Rhizobium which requires moist soil to improve its effectiveness. | Nothing was done. |
| Limited extension services offered to farmers. This was mainly as a result of limited resources such as transport. | Available resources were used and we worked hand in hand with AGRITEX. |
| Failure to follow instructions by some Lead Farmers and one trial plot owner. | Advice was given for use in the next season. |
| Too stringent requirements by security forces for people coming outside the district. | We had to engage in dialogue and also had to submit their requirements. |

Innovations:

- Use of local structures in the management and monitoring of the project.
- Farmers contributions towards meaningful field days.
- Putting farmers in the lead.
- Combining field operations with existing funded programmes.
- Use of tied ridges to conserve moisture.

2.2 Hwedza district – Agritex

In Hwedza district, the N2Africa project is implemented in two wards namely Chigodora (Ward 9) and Goto (ward 8). (in the 2010-11 season project activities only took place in Chigodora ward). Both wards are in NR III with soils that are inherently low in fertility.

Main achievements

- Input distribution done in a timely manner
- Gender sensitivity considered in farmers selection.
- Managed to supervise plot layout and planting.
- Repeated farmer trainings done for farmers to grasp concepts (40 sessions).
- Field days hosted – 6.
- Exchange visits – Makoni district.
- Multi-stakeholder participation.
- Harvesting and yield assessments monitoring.

Challenges & Solutions

- Erratic and inadequate rains.
- Packages too small.
- Some farmers not cooperative.
- Mobility of extension staff.



Innovations

- Use of groups – more farmers are covered.
- Introductions of competitions among farmers to stimulate participation.
- Field days and dry shows (next one planned for 10 August).
- Look and learn tours.
- Involvement of key stakeholders and local leaders.

Experiences that others can learn from

- Benefits of collective effort.
- Use of Lead Farmers to train other farmers and importance of inter-farmer visits as a monitoring tool.
- Use of field days.
- Seed bulking.
- Putting ownership of project to the community.
- Use of inoculants.

Ways of reaching more farmers

- Revolving seed to ensure wide coverage.
- Scatter and increase Lead Farmers and their followers.
- Embark on value addition.
- Link farmers to markets.
- Encourage farmers to exhibit legumes during shows.
- N2Africa to support with prizes during shows.
- Workshops and awareness meetings to be intensified.
- Encroach into neighbouring wards which have already shown interest.
- Taking advantage of social gatherings to publicize the project.
- Adequately capacitating extension personnel.

In total Agritex in Hwedza facilitated 40 training sessions with 1050 farmers. They also did inter-district exchange visits and considered gender in farmer selection.

2.3 Chegutu & Murehwa districts – CTD

The Community Technology Development Trust (CTDT) is implementing the N2Africa project in two districts, Chegutu and Murehwa, promoting legume production among smallholder farmers in the project districts since September 2009. The wards where the N2Africa project is implemented are ward 14 and 15 in Murehwa and ward 10 and 27 in Chegutu. Although both districts lie in natural region 2 (NR II), they received different rainfall amounts in the 2011-12 agricultural season. Soil types range from the red clays (ward 10 of Chegutu) to sandy loams and sands in Murehwa.

In the 2011-12 season, 1700 farmers received inputs; 1000 farmers in Chegutu and 700 in Murehwa. In total 508 males and 1192 females are participating in N2Africa, with 89 Lead Farmers assisting with project implementation. Four training sessions were held for the Lead Farmers and Agritex in the two districts. The N2Africa team, CTD and Agritex facilitated the Lead Farmer training sessions. Lead Farmers received 5 kgs of any legume seed each, with every mentored farmer receiving 1 kg of either groundnuts, soybeans, cowpeas or beans. All farmers received single super phosphate and only farmers who received groundnut seed also received gypsum.

Farmers received multiple of trainings on good agronomic practices. To avoid poor germination at planting, farmers had to further select the groundnut seed as the packets contained several broken kennels. Further training sessions were held on the following:

- Inoculants handling and use.
- Legume agronomy and record keeping.
- Pests and disease management.



- Pre- and post-harvest losses.
- Marketing and market linkages.
- Trainings were open for both beneficiaries and non-beneficiaries.

The Lead Farmer approach was used to cascade the information to mentored farmers with technical back stopping from the N2Africa team, CTDT and AGRITEX extension staff. Each mentored farmer planted 25m² and Lead Farmers planted 400m² each. Across the two districts, 12 demo plots were established with each plot allocated 8 kgs of the given legume and 800m² was planted per each plot. Soya beans and cowpeas attained more than 90% germination rate. Sugar beans and groundnuts attained 50% to 60% germination. Four field days were hosted in the 2 districts.

The yields obtained from sugar beans, cowpeas and groundnuts were unfavourable and this was attributed to the erratic rainfall pattern received during the 2011-12 season.

Challenges

- Poor germination of sugar beans and groundnuts.
- Soil capping in red soils affected germination of the soya bean crop.
- Some crops wilted in those areas that were affected by prolonged dry spells.
- Erratic/uneven rainfall distribution accompanied by long dry spells affected performance of the legume crops.
- Farmers who sent soil samples for testing did not receive their results.
- The cowpea crop was affected by aphids and to counter that problem farmers used traditional control methods.
- Late distribution of legume seed in a few places affected planting especially in those areas that received their first rains early.
- A few farmers gave up following up with weeding and pest control because they were frustrated by poor crop emergence.

Innovations

- CTDT gave an additional 40 farmers 10kg of soya bean seed for on-farm seed multiplication activities from another funding partner.
- Crops like cowpeas were attacked by aphids and farmers had no pesticides to fight against these pests hence they resort to traditional ways of controlling them which minimized the attack of crops by pests (ashes).
- Trainings were open for both beneficiaries and non-beneficiaries in an effort to promote legume production in the whole area.
- CTDT plans to reach more than double the number of beneficiaries in the final year of project implementation by "using the seed pass-on scheme" produced by Lead Farmers in addition to any input assistance that might be received from the project during the next agricultural season.
- Good relationship with local councillor maintained.

Future plans

- Train more farmers on legume agronomy and adding value to their produce.
- Expose farmers to markets and if possible assist them to market their crops.
- Promote the 'seed pass on' scheme to be able to reach more farmers.
- Encourage farmers to buy own seed and increase area planted to legumes.
- Train more Agritex extension staff so that they can confidently promote the growing of legume crops in their wards.
- Promote processing for home consumption.
- 2 demos in every village (17 villages).
- Murehwa: possible collaboration with Sustainable Agriculture Trust (SAT).

Conclusion

- The project progressed well despite facing challenges as indicated above.



- Farmers worked tirelessly to achieve the good results by managing their crops through weeding, controlling pests and diseases using traditional methods.
- Farmers are still facing marketing problems.
- The crops were affected by the prolonged mid-season droughts that were experienced.

2.4 Makoni district – Agritex

In Makoni, Agritex is implementing the N2Africa project since the 2010-11 season. The farmers in Makoni have the project at heart and there is good cooperation of Lead Farmers and their follower farmers. Also the N2Africa project is integrated with other projects, e.g. the project on Conservation Agriculture (CA).

In total, 3 field days were organized in the district. Farmers appreciated the project so much as evidenced by the fact that they were rained upon at one of the field days, yet went ahead with the event. Attendance was good. Also there have been exchange visits within the district as well as one exchange visit to Hwedza district.

In total there are 30 saving clubs within the Ward where N2Africa is being implemented. These clubs are instrumental in helping farmers to save for the purchase of inputs for the next season. Agritex has also begun to work with (local) agro-dealers; Farm solutions, Farm & City and Leo marketing. They were involved in Field Days and discussions are being held to get them to stock the necessary inputs for next season for legume production.

Challenges & solutions

- Distribution of inputs was late (after the first effective rains). If possible, inputs to be received by early October.
- Farmers could not plant on the same dates in the case of soya beans and sugar beans making it difficult for the shared use of inoculants – Nothing was done.
- Crops affected by drought – (groundnuts, soya and sugar beans) Farmers encouraged to use moisture conservation methods.
- Pest and disease attack on crops – farmers encouraged to buy their own chemicals and trainings on pest and disease control done.

Innovations

- Used moisture conservation methods to reduce impact of long dry spells.
- Integration of projects.
- Linked farmers to agro-dealers and promoting legume input sales.
- Contract farming with Reapers (groundnut and sugar beans) for seed production.
- Initiated savings club for collective input buying.

2.5 Goromonzi district – CADS

Cluster Agricultural Development Services (CADS) is implementing the N2Africa project in Goromonzi District. A total of 50 Lead Farmers and 950 mentored farmers implemented the project in 6 wards of Goromonzi. Emphasis has been placed on production of the following legumes: sugar beans, soya beans, groundnuts and cowpeas. The project was linked with other existing projects: Conservation Agriculture (CA), small livestock, value addition and HIV & AIDS mitigation. CADS is also using activities within the N2Africa to encourage the production and consumption of the legume crops to eradicate malnutrition from the communities.

Project activities carried out included the following: beneficiary selection, input distribution, agronomic training on legume production techniques, as well trainings on value addition and marketing. Some training topics have been repeatedly discussed with farmers to ensure they are well understood and farmers are able to implement.



The approaches used, mainly theory along with practical demonstrations, were effective as farmers were able to learn from their peers and from technical staff. Non-beneficiaries also attended the trainings and provided useful insights on community perceptions and attitudes towards technologies. The farmers indicated they improved their level of knowledge and mastery of production as a result of the training, which is important for future adoption of the crop varieties and the inoculation technology.

In the activities, CADS has ensured involvement of stakeholders such as Agritex, Ministry of Women Affairs and MOCHW to ensure sustainability. CADS also involves the youth department in order to get the youth to participate. CADS mainstreamed HIV and AIDS and nutrition into project activities, to mitigate the impacts of the pandemic.

Seed Multiplication: 10 farmers were selected for seed multiplication; 4 farmers received 25 kg of sugar bean seed and 6 received 6 kg of cowpeas seed. The farmers harvested an average of 350 kg/farmer for sugar beans and 60 kg/farmer for cowpeas.

Field days: CADS managed to organize at least one field day per ward.

Lessons learned

- In Zimbabwe, sugar beans are planted with a fertilizer basal dressing at 600 kg Compound D per hectare, while the project demo treatments specifications on Lead Farmers did not have that therefore we advised some mentored farmers to use Compound D or compost which results were fruitfulness.
- The expectation that 5 mentored farmers could plant on the same day soon after sharing the rhizobium was not always met as rainfall distribution, was uneven and ineffective in some areas. However farmers were encouraged to procure inoculants at household level in future seasons.
- Germination and Emergence of sugar bean variety bonus was poor therefore farmers were advised to replant using retained seed of Cardinal variety from previous season.
- The strategy of using Lead Farmers in extension was good for lowering training costs, however there was a risk that some Lead Farmers who were poor facilitators did not perform well, thereby technical trainings were done by both Lead Farmers and extension officers with either CADS or Agritex being present.

Innovations

- **Value addition trainings** were integrated with other activities to enable beneficiaries to prepare nutritious and balanced meals that are a prerequisite for good health. Training sessions were conducted on groundnuts, soya beans and cowpea processing.
- **Training on capacity building** in places where farmers are savings and lending money to other members. A total of 6 Internal Savings and Loans Schemes (ISALS) groups were formed (ISALS). The members are contributing money, ranging from \$5 to \$10 per month. The money loaned will be paid with an interest of 20% per month. The money that they are raising is earmarked for purchasing inputs for the coming season (possibly through collective input buying).
- **Mainstreaming small livestock** into N2Africa project: farmers trained on production of poultry (indigenous chickens, broiler & layers). 1 group of 20 farmers in ward 2 received broilers and layers which they are feeding using home grown feed formulation using soybeans from the N2Africa project. A livestock specialist from CADS trained farmers on feed composition and treatment of soybean to ensure nutritional feed for chickens.
- **Commercialization of value addition:** a group with 20 members in ward 12 have a shop in Juru growth point where they market value added products, some of these products are also taken to Harare.
- **Linkages of groups to Windmill credit facility:** farmers benefited from accessing inputs on loan facility to expand their areas, some farmers do up to 2 ha of soya beans.
- **Extension officers and/or field officers:** are trained together with Lead Farmers to improve facilitation of cascading knowledge down from Lead Farmers to their group members (co-training).



- **Learning centres:** CADS has established larger demonstration plots in which they showcase different technologies they are promoting such as the legume technologies from N2Africa, CA, nutritional gardens, etc.

2.6 Mudzi district – Agritex

Agritex is implementing the N2Africa project in Mudzi district. In the 2010-11 season the same Agritex officers were involved (namely those from the 2010-11 season), but through CADS. CADS was not planning to implement any other project activities in Mudzi district in the 2011-12 season. However, their approach is to integrate different project for efficiency so that they can employ field officers in an area. So in absence of projects other than N2Africa, implementation became challenging for CADS in Mudzi. It was therefore agreed that CIAT would engage directly with Agritex that had been involved with N2Africa in the previous season.

Achievements:

- **Field days:** Two hosted, and 3 MPs attended and appreciated the yields from groundnut crop which had 150- 210 pods per plants. Two of the MPs requested N2Africa to launch the project in their constituencies.
- **Seed multiplication:** groundnuts and cowpeas through use of SSP and Gypsum fertilizers.
- Appreciation of satellite farmers and Lead Farmers on yield differences compared to their own fields with demonstration plots.
- **Marketing:** Buyers coming to purchase groundnuts locally – a big boost for farmers! GMB, Agricom, and Agriseeds. Competition among buyers has pushed up prices, e.g. unshelled groundnuts from \$0.40 to 0.50 per kg (grain).
- **Linkage to Input Suppliers:** Farmers benefitting from BNF and have vowed to increase hectares planted to legumes. Farmers are requesting to be linked to input suppliers for SSP and Gypsum.
- **Varietal Preferences:** Farmers have noted the benefits of a newly improved variety, namely Natal Common, as compared locally retained varieties. The benefits of Natal Common are notable.

Table 2: Challenges & solutions, Mudzi district, season 2011-12

| Challenge | Solution |
|---|--|
| Planting too late due first effective rains | Training and encouraging farmers to plant early |
| Pests and Diseases infestations | Training on scouting and spraying for pest and disease control |
| Erratic rains, insufficient moisture, fertilizer burns, poor germination | Planting with adequate moisture |
| Mobility (Transport) | Self willingness and sacrifice |
| Little follow-up from some of the extension agents (intercropping in demo plots) | Need for follow-up on all Lead Farmers, especially at planting |
| Political instability: Challenges for CIAT officers from Harare with local authorities (Many protocols before going to field) | Field day hosted provided a big platform for local authorities to understand the project |
| Agronomy trials planted late & difficult to judge whether the crops can be grown in NR IV (soybean and forages) | Next time it would be good to establish trials early |



Innovations:

- Creating our own supplementary trainings and meetings with Lead Farmers.
- Visiting Lead Farmers at their respective homesteads.
- Carrying out trainings at demo-plots/trials of Lead Farmers.
- Extension workers to have own workplans.
- Invited political leaders to major field day for them to have a feel of what N2Africa is doing in Mudzi.

2.7 Plenary on season 2011-12

After the different presentations from D&D partner organisations, a general discussion was held on several issues arising from the presentations. Several partners allowed non-beneficiaries to participate in the training of Lead Farmers. It was agreed in the meeting that there is need to follow-up on these farmers to see if they implemented any of the things that were taught.

The 'Learning Centres' established by CADS in Goromonzi also drew the attention of other partners. In these learning centres CADS exhibits different activities/technologies from different projects such as N2Africa, CA and keyhole gardens. Any visitor to such a learning centre will have an opportunity to learn from the different technologies displayed. CADS established three such centres per ward and therefore most are within walking distance for farmers. CADS did not find it difficult to find land for such larger learning centres as most village heads have excess land available. As CTD T is also promoting diversification of crop production, they will set-up 2 larger demos per village in the wards where they are working in Chegutu, showcasing legumes, maize, small grains and possibly other orphan crops. Other partners also got some ideas on the establishment of different kinds of demonstrations.

Partners are encouraged to allow for flexibility in the formation of groups and in the engagement of existing farmer groups. If there are effective groups organized for another purpose and it is the assessment of the partner that these are suitable for the promotion of N2Africa technologies, partners are encouraged to make use of these. There is need for flexibility in the application of the Lead Farmer approach, for example in the group size, lay-out of demonstration, etc. The D&D partner will need to indicate to the N2Africa project what would work best in their areas.

Seed repayment: Not all districts have followed the guidelines to get 2 kg of seed back from those farmers who received 1 kg. Where possible, this will be corrected. In other cases like Hwedza, Agritex will encourage farmers to voluntarily remit another kg so that these seeds can be distributed to farmers in the 2012-13 season. The collection and storage is done differently in the various districts. In Hwedza, Agritex made the decision on how to collect and store the seed in collaboration with farmers as this builds trust. Agritex has a warehouse where the farmers come with their seed, Agritex inspects and weighs and the seed is stored. Farmers prefer this, rather than having the seed in their own houses. Agritex Hwedza notes the need for farmers who are already trained in seed storage to also train other farmers. Also Agritex is asking for bigger 50 kg bags. The harvest of sugar beans has been seriously affected by drought.

CTDT will have the Lead Farmers to collect the seed from other farmers. CTDT will then bring the seed from Chegutu to their offices in Harare as there are always people traveling between Mhondoro and Harare. In Murehwa, they will probably have the farmers to store the seed and the Lead Farmers to decide to whom the seed will be distributed in the 2012-13 season.

CADS will also transport the seed to their offices to have it cleaned, treated, graded and repackaged. As they have learned from past experiences LGDA will actively participate in the seed re-distribution to monitor who will get the seed, the quality and the quantities. Lead Farmers will collect the seed; it will then be assembled at a central point and redistribution will be closely supervised.

In Mudzi, Agritex will be able to collect the seed from farmers, but storage is a bit of a challenge; this will possibly be done at the district level. Transport of the seed has not been sorted yet.



CTDT notes the need to incorporate seed repayment program and other N2Africa activities into overall CTDT project, particularly in Chegutu. There is an interest in bringing farmers into value chains as well as the use of CA on legumes (while it was previously only practiced on maize). Effective seed repayment systems enable farmers to produce for themselves rather than depending on development projects and donors.

Particularly in Mudzi and Murehwa, the weather has been unfavourable and there are farmers who have not managed to harvest anything. Their seed repayment will be difficult. In all districts it seems the quality of seed received on repayment varies and it therefore needs to be sorted and carefully graded to ensure that new participants in the upcoming 2012-13 season receive good quality seed.

Several participants indicated that there is a need for guidelines on seed grading. Seeds that are affected by drought need to be graded out and stored separately. Well-graded seed will fetch a higher price.

2.7.1 Women participation

The participation of women in all farmer-related activities in the N2Africa project is targeted at 50%. There is however a difference in female participation between the different activities:

- 17 Field Days, total 3546 people participating (58% women, 42% men)
- Training: in total 614 participants (54% men, 46% women)
- Women participation:
 - o Input distribution: almost 62%
 - o Lead Farmers: almost 47%
 - o Field day participation: 58%
 - o Training: 46%
 - o Value addition/home processing: almost 100%

If we look for example at the participation of women in the project as Lead Farmers and other farmers, a distinctive difference can be noted between districts. Overall Mudzi and Guruve have the lowest participation of women both as Lead Farmers and as other farmers. It might be useful to note that the marketing of legumes from these two districts is happening on a notable scale. In Guruve, farmers have relatively large landholdings and those cultivating legumes, particularly sugar beans on a larger scale, are easily able to sell these profitably. From Mudzi a lot of groundnuts are marketed.

It is acknowledged that often times women are already quite heavily burdened by the many tasks they are responsible for and then it becomes problematic to add on other tasks that come with being a Lead Farmer. Participants in the meeting are keen to learn from one another, e.g. in this case from Agritex Makoni how they achieve such high involvement of women.

Table 3: Number of Lead Farmers and other farmers, 2011-12 season, Zimbabwe

| District | Lead Farmers | | | Other Farmers | | | Total | | |
|----------------------|--------------|------------|------------|---------------|-------------|-------------|-------------|-------------|-------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Murewa (CTDT) | 14 | 21 | 35 | 220 | 427 | 647 | 234 | 448 | 682 |
| Chegutu (CTDT) | 15 | 16 | 31 | 185 | 374 | 559 | 200 | 390 | 590 |
| Makoni (Agritex) | 18 | 32 | 50 | 239 | 711 | 950 | 257 | 743 | 1000 |
| Hwedza (Agritex) | 27 | 22 | 49 | 348 | 598 | 946 | 375 | 620 | 995 |
| Mudzi (Agritex) | 42 | 16 | 58 | 488 | 470 | 958 | 530 | 486 | 1016 |
| Goromonzi (CADS) | 22 | 27 | 49 | 272 | 625 | 897 | 294 | 652 | 946 |
| Guruve (LGDA) | 33 | 15 | 48 | 464 | 469 | 933 | 497 | 484 | 981 |
| Total Numbers | 171 | 149 | 320 | 2216 | 3674 | 5890 | 2387 | 3823 | 6210 |
| % | 53 | 47 | 100 | 38 | 62 | 100 | 38 | 62 | 100 |



Table 4: Percentages of women and men amongst Lead Farmers and all farmers per district, season 2011-12

| | Lead Farmers | | All farmers | |
|-----------|--------------|------|-------------|------|
| | Female | Male | Female | Male |
| Mudzi | 28 % | 72 % | 48 % | 52 % |
| Guruve | 31 % | 69 % | 49 % | 51 % |
| Hwedza | 45 % | 55 % | 62 % | 38 % |
| Chegutu | 52 % | 48 % | 66 % | 34 % |
| Goromonzi | 55 % | 45 % | 69 % | 31 % |
| Murehwa | 60 % | 40 % | 66 % | 34 % |
| Makoni | 64 % | 36 % | 74 % | 25 % |

The activities that were not implemented at all or not well enough:

1. Agro-dealer training
2. Media events
3. Community-based seed production
4. Linking farmers to markets
5. Linkages to legume processing initiatives
6. Making inoculants more easily available to smallholder farmers

1. Agro-dealer training

Last year, N2Africa and IFAD discussed with the Feya Feya agro-dealers network about training agro-dealers in their network. Unfortunately, this plan fell through at a time when it was too late to get another training organized. It is agreed that there is no point in training agro-dealers in for example December and therefore it was decided to post-pone this milestone to August or September 2012. Follow-up with partners about agro-dealers in their districts & training needs.

2. Media events

Despite the political instability in Zimbabwe, we need to make more effort to publicise the work within the N2Africa project. It is not always easy to find the right balance, but participants agree that something can be done.

3. Community-based seed production

For the 2011-12 season it was decided to focus on fewer farmers for seed production in order to be able to monitor them closely and ensure good quality seed is being produced. We need to extend these efforts to ensure locally sustainable systems for seed production.

4. Linking farmers to markets

For the 2010-11 season, few initiatives were taken which were quite successful. In the 2011-12 season, there has been more training of farmers on marketing their crops. These trainings are still on-going and hopefully will result in farmers being able to link to markets independently of the project. There is need to assess these trainings to see how effective these are. For the 2012-13 season the project will intensify activities to link farmers to markets.

5. Linkages to legume processing initiatives

Most legume processing initiatives within N2Africa in Zimbabwe have been household-based. Although this is noteworthy and will contribute to increased consumption of nutritious legume-based foods at the household, we might be able to explore possibilities to scale-up legume processing.



6. Making inoculants more easily available to smallholder farmers

At present, SPRL is unable to produce inoculants in smaller packages that would be more suitable for Zimbabwean smallholder farmers in communal areas. The current packages should be easily available to farmers through Agritex. It is however clear that this is not the case in many areas, partly because Agritex officers might not be publicising the opportunity well enough, partly because farmers are mostly unaware of this possibility. N2Africa will continue to follow-up on both the smaller packs as well as more effective distribution of inoculants to communal areas. SPRL will be encouraged and possibly assisted in setting-up a more systematic way of monitoring the inoculant distribution through Agritex in the different districts.

Emphasizing the goal of putting money in farmers' pockets, we had a quick look at current market prices for legumes. The following are prices that are paid in Harare, so these do not reflect prices within districts. Although cowpeas are quite popular for their leaves as well as grain for household consumption, they prove to be more difficult to market. At the point in time of the meeting, we had failed to get a confirmed price for cowpeas.



Table 5: Legume prices per tonne in Harare (June 2012)

| Legume | USD per tonne in Harare (14-06-2012) |
|------------|--------------------------------------|
| Soybean | 500 – 530 |
| Sugar bean | 750 – 1400 |
| Groundnut | 750 – 1100 |

2.7.2 Assessment of varieties

Soybeans: SC Squire, Safari, Serenade and SC Saga. Only Talkmore experienced germination problems with SC Saga; it is possible that he used a bag of seed that was not good. Safari is preferred in Goromonzi and Makoni. In Hwedza Serenade is doing very well.

All sugar bean seed was purchased from Prime Seed of the following varieties: Cardinal, Speckled Ice and Bonus. Bonus has been giving problems; the quality was very bad. For example in Goromonzi, a farmer graded the seed and took out all the cracked seed. From the 10 kg, she remained with 2.5 kg of seed of adequate quality to plant. In Guruve the Cardinal variety did not do well everywhere but that might also have been due to the erratic rains.

For cowpeas mostly CBC1 and CBC2 were distributed to farmers. Everywhere it was noted that this was not true-to-type and was mixed. (Note: Agriseed is purchasing cowpeas from N2Africa farmers in Mudzi as seed.)

The large majority of groundnut seed distributed was of the variety Natal Common. In Mudzi a few farmers received groundnut seed of the Ilanda variety. The germination of Ilanda was fair, and overall Natal Common is much more appreciated.

Some of the highlights on innovations from the day:

- Use of 'other' farmers groups conducting other activities – use groups to disseminate N2A info to new group. Integration of projects is appreciated by donors.
- Used competition among farmers to stimulate participation – currently done in field days, other ways? E.g. taking farmers to see what others are doing with them “rating” what they see? Apply both learned info and stimulated competition so as to encourage them to strive harder. Use in other ways?
- Linked farmers to agro-dealers (inputs on credit, bulk purchase)..
- Linking farmers with output markets (contract farmers with Reapers). Initiated savings club for collective input buying.
- Use of training centres/demos where all activities are exhibited: CA, N2Africa, keyhole gardens – all at same centre so every beneficiary of one project can benefit from technologies of other projects.
- Integrated small livestock with N2Africa.
- Attendance of “non-N2Africa farmers” in trainings on legume production and processing.

Some of the things participants highlighted they had learned from the presentations of others:

- Participation of non-beneficiaries in training activities (meeting participants agreed that there is need to follow-up on these farmers).
- Differences in political challenges within districts.
- Exchange visits within same districts or even same ward.



-
- CADS divided wards into clusters for easier organisation of people.
 - Multi-stakeholder platform in Hwedza, involvement of local leadership (to facilitate implementation, organization, sustainability of interventions).



3 Integrating Agronomy and D&D

3.1 Introduction

Before the presentation by the N2Africa agronomist, Talkmore Mombeyarara, about the agronomy research and the relation of that work to D&D, we briefly reviewed the idea of feedback loops within N2Africa. N2Africa is a *development to research to transform* project. Dissemination and development are the core of the project, the M&E provides the learning and Research analyses and feeds back.

The integration of the different areas of work could be a critical factor in our success as a research and development project. This figure illustrates how D&D, M&E and research are integrated and feed into one another. In short, we start from the D&D, this work is monitored and evaluated through routine M&E as well as the more advanced M&E like the Field Book and more detailed studies. The questions and issues coming out of this are then fed into the research that surrounds it all. From there feedback is provided to D&D.

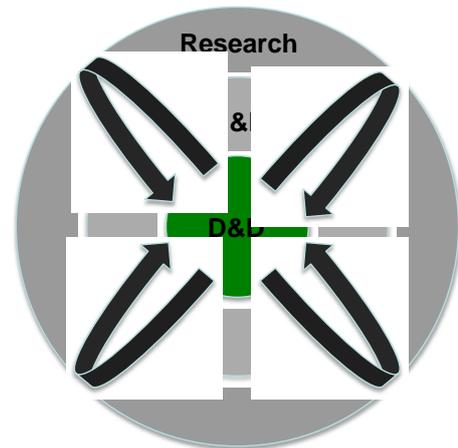


Figure 1: N2Africa feedback loops

At the same time we know many of the relevant issues already. The research work has started from the premise that successful nitrogen fixation and yield of legumes in the field depends on the following interaction:

$$(G_L \times G_R) \times E \times M$$

That is: **(Legume genotype x Rhizobium strain) x Environment x Management**

So in other words, in order to improve the nitrogen fixation of the legume and the yield, we can work on improving all the four aspects mentioned in the equation. The variety of the legume, with which particular inoculant this variety works best, research the interaction with the environment such as climate (temperature, rainfall, etc.) and soils (acidity, aluminium toxicity, limiting nutrients, etc.). And the interaction with management of the crop such as sowing dates, use of fertilizers, weeding, plant density, etc.

As this integration is a major strength of the N2Africa project, it is important that we make sure it works to the best we can. This means that we have to make sure that the data flows well and fast from the D&D through the M&E. But in addition, we need to realize that there is need for thinking around the feedback loops in this figure as well as being able to tell the bigger story of the N2Africa project in terms of impact on farmers' lives.

Surely we have a clear set of milestones that need to be achieved within the project. But the achievement of these alone does not catch the synthesis of the project, the bigger story that we have to tell – or the meta-learning. Often the learning starts at country level – then it needs to be taken to broader level. The learning is definitely taking place, but we are not capturing this sufficiently.

3.2 Integrating Agronomy and D& D

The CIAT Zimbabwe agronomist, Talkmore Mombeyarara works full time on N2Africa in Zimbabwe. He made a presentation on the research work that is being done on agronomy. To begin with, he outlined the contribution the agronomy research is making to D&D. Dissemination should involve well-known performing varieties and technologies, as such research results from agronomy form the basis of what will be disseminated. However recommendations require thorough screening and coverage of the different agro-ecological zones - hence the need to collect data from D&D farmers' plots.



Agronomy Trials

1. Evaluation of soybean and bush bean varieties for their response to inoculation in target areas in Zimbabwe. The objective is to determine the response of various improved soybean and bush bean (sugar bean) varieties to rhizobium inoculation without P, K, Ca and Mg limitation.
2. Determination of appropriate input requirements for the target grain legumes in Zimbabwe (cowpea, soya bean, sugar beans and groundnuts). The two objectives are as follows: a) To determine the response of soybean and bush beans to the application of P, K, Ca and Mg with and without inoculation, and b) To determine the response of groundnuts and cowpeas to the application of P, K, Ca and Mg without inoculation.
3. Explore the N₂-fixing potential of multi-purpose forage legumes for intensive meat and milk production and environmental services.

Results show strong responses to inoculation and strong responses to P application (see Figure 2 on soybean grain yield and stover yield).

Linkages between agronomy and D&D Since there are so many farmers under D&D, they form a platform for data collection for the diverse smallholder conditions. With observations from many plots, we can study the responses to the different amendments, agronomic practices and most importantly yields from each treatment.

Important precautions to ensure the best possible data collection from D&D plots, i.e. farmers' fields:

- Proper field selection.
- Use of rhizobia, storage.
- Applications of fertilizers.
- Timely plot management.
- Farmers should also try to follow instructions for data collections.

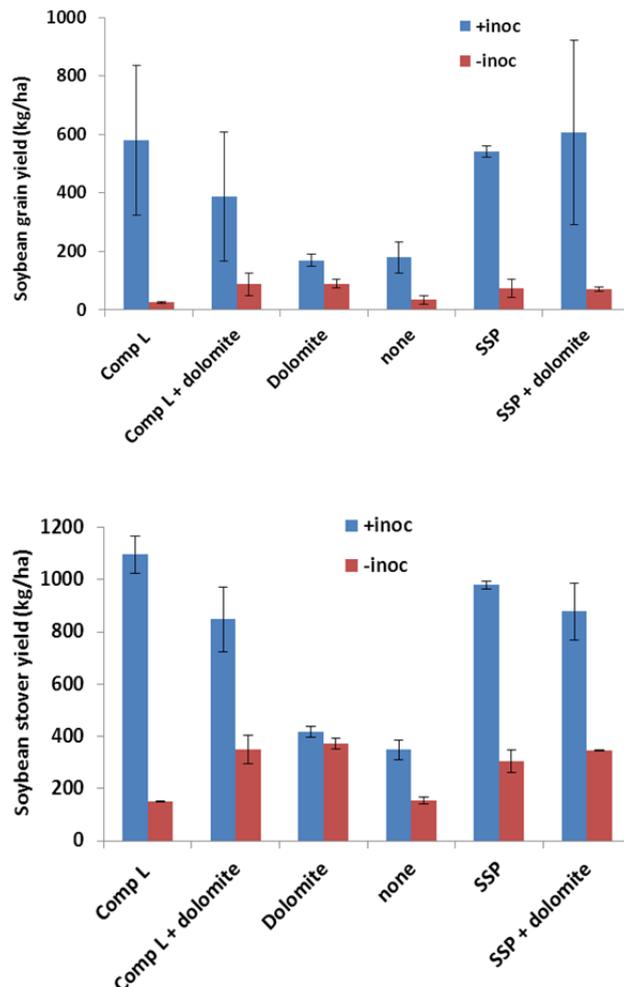


Figure 2: Soybean grain yield and stover yield from N2Africa agronomy trials

Important notes on factors affecting Biological Nitrogen Fixation (BNF):

- Excessive soil moisture.
- Drought.
- Soil acidity.
- P deficiency.
- Excess mineral N.
- Deficiency of Ca, MO, CO and B.

So the information collected from the D&D trials plots will be very important and relevant as it is much closer to farmers' reality than the agronomy trials managed and implemented by Talkmore. And while



It is of course important for farmers to look after the N2Africa plots, we also need to allow farmers to practice their cultivation per their decisions and reality. For example, with reference to the effect of a farmer planting late and/or not weeding, some meeting participants argue that this should be avoided at all costs – however, it is also an inevitable part of farmer's management and will provide the variability of results that we are looking for to learn from.

Some participants argue that we should make sure that farmers do not give us those far away out-fields that are not fertile or even very infertile. However, it could be precisely on those fields that we can prove the potential of N2Africa technologies.

It is also noted that there is evidence from previous research that inoculation on common beans does not work. In a recent N2Africa meeting in Nairobi it was decided to do some more research on inoculation on common beans. The draft protocol can be shared with those interested. Also farmers in D&D have noticed some differences between inoculated and non-inoculated common beans.

Additionally we should not write-off all the sandy soils – from the research we are learning what can work on the sandy soils.

People are suggesting we reduce the size of the untreated plot in e.g. soybean. We know the effect of inoculation so we would not want to waste space and causing far too low yields in farmers' fields.

Although Talkmore communicates results from soil analyses to the individual farmers, it is agreed that we should try to formalize it somewhat, eg by summarizing results and recommendations on a one-pager for a certain area. We do however need to notice that we do not want to go back to blanket recommendations for an area too large.

To end the session, Talkmore elaborated a bit on the research work on forage legumes that started this 2011-12 season. In first instance four forage legumes with high BNF capacity are to be identified in order to come to sufficient planting materials available for at least 2 multipurpose tree legumes and 4 forage legumes with high BNF capacity.

In this second season for N2Africa in Zimbabwe, trials to evaluate adaptability of multipurpose trees have been set-up across different ecological zones in the country. The selection of species and trial design has been done in partnership with Professor Barbara Maasdorp from the Department of Crop Science, University of Zimbabwe and Ms. Dorah Mwenye, agroforestry specialist from Agritex.

The multipurpose tree species that are being evaluated in Zimbabwe are *Acacia angustissima*, *Cajanus cajan* (pigeonpea), *Gliricidia sepium*, *Leucaena esculenta*, *L. leucocephala*, *L. pallida* and *L. trichandra*. The growth of these species will be evaluated over the two years. Response to inoculation is also being tested across the different ecological zones namely, Chikwaka (Natural Region II) Hwedza (Natural Region III) and Mudzi (Natural Region IV). Seedling survival and biomass yield will be determined across the different agro-ecological regions. The farmers hosting the trials are dairy farmers who appreciate the value associated with these forages.

For the annual forages the following have been selected: velvet bean (*Mucuna pruriens* var. *utilis*), trailing cowpea (*Vigna unguiculata*), lablab (*Lablab purpureus*), sunhemp (*Crotalaria juncea*), sunnhemp (*C. ochroleuca*), and forage soybean (*Glycine max*, promiscuous, likely derivative of Hemon 147). Biomass yield and adaptability to different areas will be determined with and without addition of mineral fertilizers. These experiments are ongoing and results are still pending harvesting and analysis. Sufficient seed will be available after harvesting from the farmers' fields in the 2012 season for further dissemination of the promising species.



4 Diversification of D&D

In Zimbabwe in the upcoming season of 2012-13 we are targeting to reach 16,000 farmers. It is important to keep in mind how N2Africa has defined reach.

Reach = Use of two N2Africa components. Use of such 'improved legume cultivation' on a minimum surface of 100 m².

The 2012-13 season is the last season for the current phase of N2Africa in Zimbabwe. Although there might be possibilities for a second phase of N2Africa we all understand that nothing is certain.

The country coordinator called for a diversification of D&D approaches. For sustained impact we need to diversify our approaches:

- ***Go beyond the Lead Farmer model***
- ***Go beyond input distribution with seed repayment***

Further plenary brainstorm on diversifications, options for inclusion of private sector in N2Africa project activities, etc. in preparation of development of workplans for 2012-13 season.

Options for inclusion of the private sector in N2Africa project activities:

Goromonzi: Windmill as agro-input supplier, minimum of 20 farmers per group. CADS will probably aim to engage at least 300 farmers with Windmill. Are there options to do this in other districts? In Guruve they are interested to expand for sugar beans (now there is 1 group of 20 farmers only).

Agro-dealers such as Farm&City and Farm Solutions are to be found in several districts: We need to sensitize them so that they stock the needed inputs and then also stimulate farmers to save and purchase input (possibly as a group). The network of agro-dealers Feya Feya is in at least some of the districts where N2Africa is active such as Murehwa and Guruve, however, sometimes it is even more restricted to certain wards within districts.

In one place farmers were trained on the use of inoculants and then farmers went to buy themselves.

SeedCo has previously expressed an interest to sponsor N2Africa demonstrations. They also wanted to showcase their varieties on the larger demo's from CADS in Goromonzi. Other seed suppliers might be similarly interested.

In Malawi, after training, several agro-dealers setup demonstrations close to their shops. This has generated quite a lot of interest from farmers.

CADS reported that one farmer continued with the demonstration at his home plot after the first season. In Chegutu a farmer who works with CTDI expanded his sugar beans onto 0.5 ha and the councillor became very interested. In Mudzi the field day with so many authorities and MPs/politicians present was very successful; they showcased maize + cowpea/groundnut and also the seed houses demonstrated their varieties. In Guruve, the very successful Peter Mukwenya hosted a field day.

In Hwedza opportunities are arising to scale-up with existing farmer groups and with the many others who are interested and some of whom are beginning to make savings (to be able to purchase inputs).

Brainstorm on how to reach more farmers in 2012-13 season:

- Revolving seed to ensure wider coverage.
- Scatter Lead Farmers and 'followers' over a wider geographical area.
- Do more on value addition, e.g. products made from soya, include these in competitions.
- Linking farmers to lucrative markets will increase the spread of technologies.
- Encourage farmers to exhibit legumes at shows (marketing by themselves.)



- Agricultural shows, field days and dry shows are effective ways to showcase N2Africa legume technologies and reach more farmers with our message. The N2Africa project can stimulate farmers even more by providing prizes for e.g. best farmer etc. – this will definitely make farmers even more enthusiastic.
- Workshop & awareness meetings to be intensified.
- Enter into neighboring wards which show interest.
- Take advantage of social gatherings to promote the project.
- Adequate capacity/support for extension personnel (mobility, etc).
- Train more farmers on agronomy and value addition.
- Promote market linkages.
- Increase exposure of extension staff to legume production.
- Link with Windmill for inputs on credit.
- Link farmers with input suppliers (esp fertilizers).

4.1 Linking farmers to markets and implications for extension

After all presentations, Anne Turner made a brief presentation entitled “Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services”. This presentation was a selection of a couple of slides from a presentation from Shaun Ferris (Catholic Relief Services, CRS), which he had shared with Anne Turner earlier.²

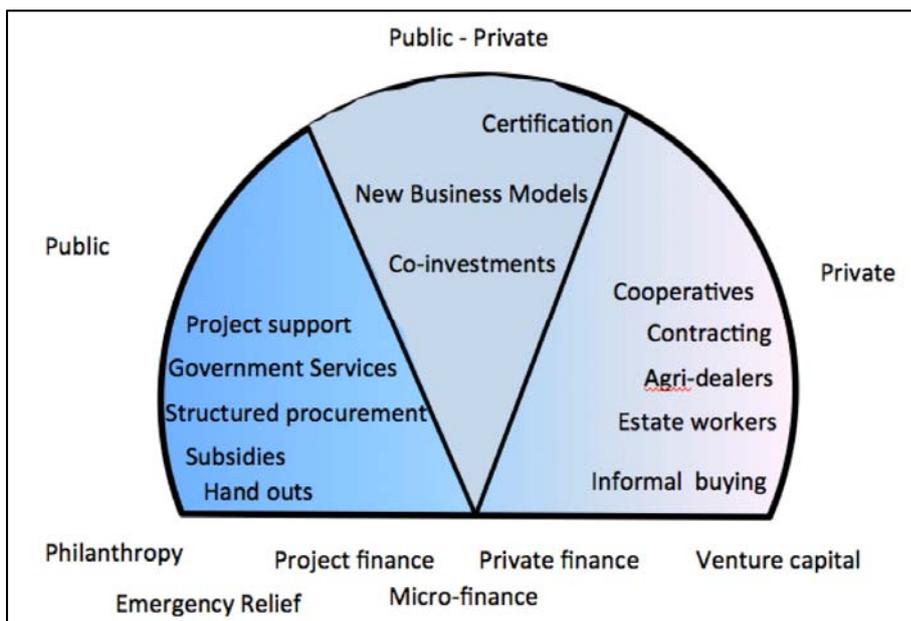


Figure 3: Spectrum of possibilities to support market linkage for smallholders (from presentation)

For extension workers, it is important to realize that there are **different types of farmers**:

- Highly heterogeneous.
- Different options.
- Different ambitions.
- Different starting points.

² Shaun Ferris made a similar presentation entitled “Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services” at the MEAS Global Learning Exchange on Best Fit Approaches in Extension and Advisory Services, Washington, D.C., June 6, 2012 (see <http://www.slideshare.net/MEAS1/the-role-of-eas-in-linking-farmers-to-markets>).

- Scope for women.
- Opportunities for Youth?

One can distinguish between **Three market areas:**

1. **Informal markets**

- Remain the major market option for smallholders.
- Limited grading.

2. **Formal markets**

- Push : pull markets.
- Higher value.
- Graded.
- Traceable.

3. **Structured public markets**

- Formal market systems that target smallholder suppliers.

Linking farmers to Formal Markets: Increasing number of studies show that smallholder farmers can prosper when linked effectively to formal growing private sector markets. Although linkages to formal markets might not immediately affect the poorest households directly, there are important 'spill over' effects, for example in terms of additional employment opportunities (Seville *et al.*, 2011:42).³



Changing role of Extension

- For the agricultural community to take advantage of the range of market options and provide support to target farmer segments extension services will require fundamental changes.
- Existing and new players will be involved:
 - Government field agents,
 - INGO's, NGO's, CBO's,
 - Private sector field agents,
 - Private sector ICT based service providers,
 - Business focused farmer organizations.
- These players must work together within a business framework.
- According to some leading firms, farmers respond better to business services than production support.
- Farmers will be required to co-invest in services.

Methods for Market linkage: There are many types of market linkage methods being used, but they typically have the following components:

1. Set up
2. Market Evaluation
3. Business planning and investment
4. Implementation (skills training x training)
5. Marketing and market sales (quality, grades traceability)
6. Evaluation and upgrading
7. Scaling

***"Produce what you can sell
don't try to sell what you
have produced"***

³ Seville, Don, Abbi Buxton, and Bill Vorley. 2011. Under what conditions are value chains effective tools for pro-poor development? A report for the Ford Foundation by The Sustainable Food Laboratory January 2011 with research support from the International Institute for Environment and Development. 49p. (See http://www.linkingworlds.org/images/stories/PDF/ValueChains_Paper_WEB.pdf)



Models for Extension:

- Collective marketing
- Cooperative support
- Value chain support within the chain
- Facilitated Value chain support
- Agro-dealer networks
- Agent networks
- Community feed based service providers

Possibly missing skills of extension officers

- Ability to evaluate market opportunities
- Gather marketing data
- Assess production costs and service quality
- Develop business plans
- Negotiate new business models of chain partners
- Evaluate profitability against plans
- Provide farmers with upgrading plans that go beyond natural resource management

The above information from Shaun Ferris – presented by Anne Turner – was much appreciated by the participants in the meeting. They work with farmers on a daily basis and see the changes in farmers' needs. However, they may lack skills and for example training materials to respond effectively to the changed requests from farmers.



5 District specific Action plans for 2012-13

On the second day of the meeting, participants set off to outline an action plan for the 2012-13 season, in groups of two or three districts. Participants were reminded of the definition of reach in the N2Africa project and well as the need to diversify the D&D approach.

If indeed 16,000 farmers are to be reached and we would extend the number of wards, but not necessarily districts, it would mean 2286 farmers per district. However, the country coordinator proposes not to focus too much on the numbers per district at this point in time. First we need to assess what is possibly/feasible in each district. In addition, it is important to consciously change our language: away from 'beneficiaries' to 'participants'. Farmers are participants in the N2Africa project in the D&D as well as in the research.

Appendix II shows the table that was handed out to people to facilitate the drafting of action plans. The following groups were formed:

1. Makoni & Hwedza
2. Guruve & Goromonzi
3. Murehwa, Chegutu & Mudzi

At the end of the morning, each group presented their draft plans for the 2012-13 season. Discussions and comments from the meeting will further assist the partners in further developing the workplans. It is agreed that final drafts of the partner workplans will be submitted to CIAT by the 15th of July.



6 Wrap up

Anne Turner pointed out that there is a draft of 'IPM guidelines for N2Africa legumes' available. She will try to finalize these guidelines before the next season. In addition she has a large number of training tools on marketing related topics which she can make available through the Farm Liaison Officer.

The Country Coordinator called for attention for gender to ensure effective participation of women in the project. Partners are also called upon to contribute to the N2Africa Podcaster to showcase successes in Zimbabwe. She shared hard copies of all Podcasters and several project reports with the participants.

Partners were again urged to share as much information as possible in their reports as it is clear that with the M&E forms we are not always catching everything.

A couple of people gave their feedback on the meeting. Someone mentioned the meeting had been like an energizer and there were several calls to this kind of meeting more often. People agreed that they had learned a lot, varying from double cropping of cowpeas, the different roles youth officers may play, to the feasibility of inter-district exchange visits. Some people would be much interested to go on look and learn tours in of N2Africa countries!

It was agreed to have the draft workplans ready by Mid-July.



Appendix I: Programme

Purpose of the meeting:

1. To evaluate the past season 2011-12.
2. To come up with draft plans for coming season for the 2012-13 season.
3. To develop plans for partnerships with private sector for input procurements by farmers (on credit).
4. To come up with detailed district-specific D&D strategies for 2012-13.

| | | |
|-------|--|-------------------------------------|
| 08:30 | Welcome & Introductions | Isaac & Judith |
| 09:00 | Delivery & Dissemination – Presentations by N2Africa partner organisations | |
| 09:00 | Guruve district – LGDA | Sekai Janga & Sam Murira |
| 09:15 | Hwedza district – Agritex | Dumisayi Muvishi & Tarwireyi Kahiya |
| 09:30 | Chegutu & Murehwa districts – CTD | Esnath Manhiri |
| 09:45 | Makoni district – Agritex | Beauty Zendera & Norman Makiwa |
| 10:00 | Goromonzi district – CADS | Leonard Kuona & Aleck Gora |
| 10:15 | Mudzi district – Agritex | Netsai Semu & Thomas Katsiga |
| 10:30 | <i>TEA BREAK</i> | |
| 11:00 | Plenary discussion on matters arising from 2011-12 season | All |
| 13:00 | <i>LUNCH</i> | |
| 14:00 | Agronomy research: what contribution to D&D? Plenary discussion | Talkmore Mombeyarara |
| 15:00 | Plenary session on diversification of D&D in 2012-13 | |
| 16:00 | <i>TEA BREAK</i> | |
| 16:30 | Wrap-up of Day 1 | All |
| 17:00 | <i>End of Day 1</i> | |
| 08:30 | Welcome – start-up of meeting | All |
| 09:00 | Break-out groups on diversification D&D & district specific planning | All |
| 10:30 | <i>TEA BREAK</i> | |
| 11:00 | Plenary on D&D diversification & planning 2012-13 | All |
| 11:45 | District planning for 2012-13 | |
| 12:30 | Wrap-up | All |
| 13:00 | <i>LUNCH</i> | |



Appendix II: Table for Action plan 2012-13

N2Africa – Zimbabwe

Action plan 2012-13

Thinking of what needs to be done for the upcoming season (= activities), it is useful to think in terms of the 'team' that is needed to implement this action or activity, the time it needs to be done and what resources might be required to achieve the activity. Filling the table below might help you in clarifying these different aspects in order to really get things done.

District:

| ACTIVITY | WHEN | WHO | RESOURCES |
|--|---|--|---|
| <i>What is it that needs to be done?</i> | <i>When does this task need to be done?</i> | <i>Who needs to be involved & who is to take responsibility for this task?</i> | <i>What is needed to get this done?</i> |



Appendix III: List of participants

| No | Name | Sex | Occupation/ Organisation |
|----|-------------------------|-----|--|
| 1 | Leonard Kuwona | M | Project Manager (CADS) |
| 2 | Aleck Gora | M | Project Coordinator (CADS) |
| 3 | Sam Murira | M | Project Officer (LGDA) |
| 4 | Thelma Sithole | F | Field Officer (CTDT) |
| 5 | Esnath Manhiri | F | Field Officer (CTDT) |
| 6 | Stewart Mandebvu | M | Field Officer (CTDT) |
| 7 | Nelson Mango | M | CIAT Site Coordinator |
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| 19 | Kahiya Tarwireyi F | M | Agricultural Extension Worker, AGRITEX Hwedza |
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References

Seville, D., A. Buxton, B. Vorley. 2011. Under what conditions are value chains effective tools for pro-poor development? A report for the Ford Foundation by The Sustainable Food Laboratory January 2011 with research support from the International Institute for Environment and Development. 49p.

(See http://www.linkingworlds.org/images/stories/PDF/ValueChains_Paper_WEB.pdf)



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 soybeans, 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



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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



Partners involved in the N2Africa project



Bayero University Kano (BUK)



Caritas Rwanda



Diobass



Eglise Presbyterienne
 Rwanda



Resource Projects-Kenya



Sasakawa Global; 2000



Université Catholique de Bukavu



University of Zimbabwe

