



## **PARTICIPATORY INNOVATION DEVELOPMENT FEEDBACK SESSION**

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**African Enterprise, Pietermaritzburg, South Africa**

**Report on Feedback Session Proceedings**

**Discussion, Conclusion and Way Forward**

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**KIT**

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## **1. Executive summary**

Through their Tailor-made Training Programme, NUFFIC has made funding available to Mahlathini Development Foundation to work with KIT (The Dutch Royal Tropical Institute) and the Institute of Natural Resources NPC (INR) to provide a training and mentorship programme that builds capacity in undertaking joint experimentation. Joint experimentation, sometimes known as participatory innovation development (PID) is seen as an effective mechanism to develop solutions that are appropriate to the local environment rather than introducing solutions from outside, which often do not fit the social and physical context.

Joint experimentation, which gives recognition to different sources of knowledge and ideas (farmers, scientists, practitioners, market agents, etc.), also stimulates innovative behaviour amongst stakeholders. It recognises and builds on the innovative capacity of farmers, but draws on other sources of knowledge too.

During the Participatory Innovation Development workshop held on 17 – 21 August 2015, at Drankensville, KwaZulu-Natal Province, in South Africa, each of the participating organisations was assigned a task to implement what was learned during the training with smallholder farmers on the ground. Each of the organisations was allocated funds to run a PID project with smallholder farmer in communities with whom they work. These PID projects were funded by Nuffic and the funds were channelled through the Institute of Natural Resources. The aim of this feedback session was for each participating organisation to give feedback of the type of innovations they have implemented.

## **2. Introduction**

The Participatory Innovation Development workshop (feedback session) provided the opportunity for participating organisations and smallholder farmers to come together and discuss the opportunities and barriers of implementing PID on the ground. The participating organisations included, Institute of Natural Resources (INR), LiMA Rural Development, Mahlathini Development Foundation (MDF), Farmers Support Group (FSG), SaveAct, Department of Agriculture, and farmers working with each of the organisations. The programme and the attendance register are attached in Appendix A and Appendix B, respectively. The objective of feedback session was to create a platform for organisations involved in community development work to share their experience with working in communities as well as looking at PID implementation from community members' perspective.

The PID feedback session has a potential to generate better approaches for involving community member in development projects in communal areas. The outcomes of the PID feedback session could be adopted by participating organisation in planning for future development projects. In orders to allow information sharing, each of the participating organisation was allocated times slot for presentation which was followed by a question or discussion session. Furthermore, farmers who worked with each of the organisations were given a chance to share their experiences in working in a PID project.

### **3. Methodology**

The feedback session was using a participatory approach of plenary, group discussion, and feedback sessions to engage participants. To accommodate a large number of participants the feedback session was facilitated in the local language (IsiZulu) and translations were done for non-Zulu speaking participants (Figure 3.1). Information sharing was facilitated through PowerPoint and poster presentation (Figure 3.2). Each of the presentations was followed by a discussion session which in some cases became a debate. The discussion session allowed for in depth understating of the subject being presented.



*Figure 3.1: Translation during the feedback session*



Figure 3.2: Information sharing using PowerPoint presentation (left) and Mrs Mazibuko shares the sweet potato work at eMaswazini (right)

### 3.1. Objectives and overall programme

Brigid Letty facilitated the welcome and introductory session and outlined the purpose of the three days feedback session. The feedback session began with presentation of a brief background of the joint experimentation training and the link between the training and feedback session. The introductory presentation was also a recap session and where participants were asked to mention or list what was covered in the training session. The following came up on this discussion: Gender issues, PID concept, the ideas of innovation, farmers' innovativeness, how to do documentation around farmer experimentation, joint experimentation – community members working together with outsiders with a new idea, putting together that knowledge. Some participatory methods such as ranking and scoring and also voting were discussed – PRA tools, sharing of information is made easier, sharing and dissemination of innovations- effective communication – how to ask questions, how to listen well and affirm for people what they are saying, experimental design options – what is compared, the control. Also look at the issues to observe and to measure for each experiment. The three days feedback session was outlined.

### 3.2. Progress of the feedback session

A summary of activities done of each day was given at the beginning of the session the following day. This allowed participants an opportunity to ask further questions on issues they needed clarity on from the previous day. House rules were set and they were as follows: Cell phones on silent, one person talking at a time, keep to time, keep programme informal – fee free to share.

## **4. Information sharing and discussion of PID cases studies**

This session was facilitated by Laurens and Zanele, it involved presenting innovations and findings of each experimentation conducted in the last few months since August 2015. Laurens highlighted that the focus should be more on the processes, not just the practical outcomes of the experiments themselves. In the process the focus was to be based on evaluating if the principles of joint experimentation or PID were followed in engaging farmers and designing the experiments.

### **4.1 Effect of mulching of weed infestation**

The information sharing session began with a presentation from Mahlathini Development Foundation (MDF) which was on evaluating the effect of mulching on weed infestation. This was part of the conservation agriculture (CA) run by MDF in the KwaZulu-Natal and Eastern Cape Provinces. The presenters were a group made of a facilitator (Mazwi Dlamini) from MDF and the farmer (Bulelwa Dzingwa) from Matatiele in the Eastern Cape Province. Together they gave the an overview of what the outcomes of the experiment on mulching were, the potential and challenges for using mulch in cropped areas as well as challenges regarding stakeholder buy in. Bulelwa showed interest and shared what stood out for her in her involvement in the PID project.

The farmer made use of pictures to demonstrate the difference in yield obtained under two different farming practices (i.e. CA and conversional tillage). According to the farmer they observed or obtained improved yield under CA or mulching compared to the control which was conversional tillage. One of the major challenges faced in this project was finding a reliable source of mulching material.

The discussion that followed the presentation raised questions about the technical issues relating to using mulch for suppressing the weed, such question included, the thickness of the mulch and at what stage is the mulch put on the ground. There was also some discussion about if the project development was a joined effort between the farmer and the researcher. Details of the presentation and the discussion which followed are as outlined below.

#### **Mahlathini Development Foundation case 1**

This case was presented by Bulelwa and Mazwi, Bulelwa started off by giving an overview of how they started working with Mahlathini Development Foundation. She was using a picture story that explained that they started by laying out small plots for conservation agriculture experiments. This was to see how it works to plant maize and beans together. “We compared this to our normal way. Then we repeated it the following year and planted cover crops in autumn”. We produced more

food and were satisfied. There was still a question about weeding as for some plots weeds were a major problem. At the Bergville farmer's day we saw a way of planting cabbage with mulch and no till and we decided to try it with our maize and beans. We put the mulch down after the crops germinated as the mulch can affect germination. The mulch helped with the weeds but also helped with keeping moisture in the soil.

Mazwi then took over from Bulelwa and presented the while PID experiment. Mazwi started by giving a brief description of the study area. "Matatiele have extremely cold winters with an average rainfall 500-1000mm." The concept of cover crops is interesting as livestock need supplementary feeding in the harsh winters. Weeds are a major problem, climate change leads to patchy germination and poor growth and therefore it becomes expensive and unsustainable to keep on using herbicides. The experiment was about the use of mulching in Conservation Agriculture (CA) as the method of weed control.

People involved on the project were Mr Jabulani Hlathi, Matshepo in Sekhutlong, Mamulelekeng and Bulelwa Dzingwa and the experiment was conducted as follows:

Mulching was applied after germination as people felt they mulch would hamper germination of maize and beans. Some farmers preferred planting maize and beans in mono- cropping blocks rather than inter cropping for ease of weeding, while others planted them in intercropped blocks. Open Pollinated Varieties (OPV's) (Colorado and Border King), Ukulinga beans and cowpeas were used. A 20mx10m plots, 50cmx50cm spacing in and between rows for maize and 25cmx25cm for beans were used. Teaspoon of MAP fertiliser per planting station and handful of lime per metre row were applied.

### **Results**

The germination was patchy given the extreme drought and heat conditions at planting, but post germination growth was much better on the mulched plots as compared to the un-mulched plots. Mulched plots still had some weeds, but it was not as bad as un- mulched plots. Maize stalks were also thicker and stronger on mulched plots. Crops were greener in mulched plots.

### **Challenges**

Availability of mulch, it was not easy to acquire the grass.

Unpredictable weather (extended dry periods followed by heavy hail storms) affected planting time, germination and growth.

### ***Plans for the future***

Want to work more with the idea of cover crops and also then to use mulch with the cover crops and use the cover crops as mulch for the following maize crop. Have to plant in time, experiments take time and need that time.

### ***Questions and answers:***

The participants involved farmers who came to present they were doing and their observations. As a result most questions were rather technical then about the PID process. Below are the questions asked and answers.

- Mulching on top or next to plants as they cannot germinate if the grass is on top? How deep?
  - Depth – it needs to cover the ground. Cannot determine thickness per se- it depends on the type of mulch
  - 3-4 inch for the seed to get thorough
- How about mulching first then planting after? Is that not an option?
- With the nature of the planters used for CA, it was an issue to plant into mulch as the seed did not go into the ground. With the hand hoes we cannot first mulch then plant.
- How did they design, and plan together, how did the monitor?
- How did people decide on which observations to make, what was measured and who did the measuring? And what did they gain out of the process?
- We wondered whether we could get mulch for large plots after seeing the mulching of cabbages,
- A monitoring form was designed (translated in to Xhosa that Bulelwa did with the other farmer experimenters and all would walk about together to check the trials (measured rain, moisture every week under the mulch, and monitored growth)
  - The data sheet form was very long –this was a challenge. It was difficult to shorten as it was difficult to decide what to take out.
- Gender issues in the experiment?
  - Most of the SaveAct beneficiaries are women (80%) so automatically we work with women mainly. Men focus on herding the cattle rather than being in the gardens.
- Now that participants have seen the result of the experiment what does the community think about for going forward?

- We started with large numbers of people, but over time it has diminished. The idea sparked interest initially. Some are interested to continue as they can even use the cover crops to feed their livestock. People withdrew due to the amount of labour required to do this work. We repeated experiments with people from last year. People compare this process with their normal planting. This practise has potential for producing more for per unit area.

## **4.2 An innovation in indigenous poultry production (Busingatha, Bergville)**

The three presenters, Tema Mathebula (facilitator from FSG), Phumzile Phakhathi (farmer) and Mama Zondo (farmer) gave a presentation on indigenous poultry farming method discovered by one of the farmers at Busingatha in the Bergville area. The aim of this project was to use the method discovered by the farmer with other farmers to improve the productivity of indigenous chicken by lengthening the period of broodiness. The chickens were hit by disease thus most of them died. However this appears to be a learning curve for the farmers as they to believe this method works. The discussion that followed the presentation raised the question around possible ways to improve the technology or method as well as if farmers are able to keep records of what is happening with their experiments. Detailed report and outcomes of the discussions from this presentation are as presented below,

### *Case 2 - Poultry Innovation at Busingatha*

This case was presented by Tema from Farmer Support Group (FSG). The PID aimed to improve the productivity of indigenous chickens by lengthening the period of broodiness. Generally they lay for about 3 weeks a year. We wanted to increase this, by getting the hens to sit twice (42 days).

There was a focus group discussions with group members and the interest in indigenous chickens was motivated by the fact that they have low input costs, source of protein in meat and eggs, free range, adapted to harsh conditions, kept for ceremonies and family functions, Believed to protect against evil spirits and are mainly managed by women. Some constraints identified included lack of proper housing for chicken, diseases, low fertility of eggs and theft.

Farmers were a bit reluctant to participate due to constraints such as Newcastle disease prevalent in the area. They don't consider chickens a significant source of income. They exchange once in a while to prevent inbreeding. Mrs Minah Yende, Phumzile Phakathi and Mama Zondo agreed to participate. Two of the farmers are illiterate while one of them can read and write. Tema formulated a data sheet for one farmer (Phumzile) and assisted the two other farmers with data collection during

regular visits. Tema highlighted that farmers remembered exactly what had happened since the previous visit and thus was able to capture all the information required. Tema made sure that the data sheet was written in IsiZulu, it was explained well to the farmer and she understood it. However, Phumzile use her own way of recording data which she found to be more understandable for herself. Tema found the farmer's method to be also efficient because it even had more useful information.

Technical challenge of fowl pox was experienced. The more intensive system had more disease challenges and it cost much more to feed the chickens. They are getting feedback about diseases from Allerton Vet laboratory. Control and experiment was scored using criteria such as feed, labour, diseases, predators and housing. The experiments were rated somewhat higher, but the increased feed labour and housing requirements are seen as a constraint.

The farmer innovators also gave some their experiences with the PID and the following are points highlighted:

- This innovation does not work well in summer as it is too hot and the hens push the eggs away
- Hens became un-broody after the first attempt and it was not clear when to place eggs in the nest. Understood the PDI better after the 2<sup>nd</sup> attempt
- First attempt challenging as one of the hens became un-broody and left the nest, but after the 2<sup>nd</sup> attempt it worked better.
- Some of the chickens are used to free ranging and sleeping in trees or other places, which made this experiment a challenge. Also ensuring that they are all fed and checking on all the chicks as they range far and wide is not always possible.
- February a disease came in that killed off many of the chickens.
- They did the 42 days and then tested longer, and decided that 42 days was best as longer started causing problems.

These are the challenges encountered during experimentation

- Absence of proper housing structures
- Hens becoming un broody
- Mother hen fighting with the hens sitting on eggs
- Diseases-very prevalent after summer rains.
- Rising costs of feed – more chickens in shorter period meant having to buy more feed.
- Excessively hot temperatures resulting in high mortality of chicks

- Eggs went rotten in heat.

The innovation was identified to have the following advantages:

- Flock size can be increased over a short period of time.
- Semi intensive management allows for increased protection of chickens from predators and closer monitoring of diseases.
- Works better in winter than summer,

***Future actions***

- Give attention to housing, better structures with sufficient ventilation, and partitions for hens laying eggs and also for brooding hens and chicks.
- Will need to do inoculations
- Want to invite other farmers to also come and see our experiment.

***Key questions that came up:***

- How can the innovation be improved so it works in summer?
- There was a question about whether the farmers filled forms themselves

Mr Madondo highlighted that there would be benefit to share this information with the community at the Sibusimpilo Farmers Forum. Mr Molife asked questions for clarity as he wants to try it for himself. Due to time constraints the synthesis and identification of broad issues was delayed until the following morning's reflection session.

**4.3 Restoration activities at Mt Frere: Lima Rural Development**

Again, two presenters, Lumko Mboyi (Lima Rural Development facilitator) and Bavuyise (farmer/technical worker) gave a presentation on the PID project which was based in the Mt Frere area. This was part of an existing project at Lima Rural Development. The Farmer demonstrated to have liked the outcomes of the project and sees potential for implementation of the outcomes of the experiment.

The discussion session that followed the presentation raised questions around how to allow farmers (some with low level of education) to design their own experiment and still maintain the scientific integrity of the findings. Some of the questions were around keeping the number of participants in the project for the duration of the project.

*Case 3 - Restoration activities at Mt Frere:*

Lumko presented the experimentation experiences from the Lima project that is focused on grassland restoration and alien clearing in communal areas. There were two sets of experiments:

- Addressing acidity of areas infested by wattle to allow vegetable production and
- Methods of restoring grasslands.

As for monitoring he introduced the idea of fixed point photography. He highlighted the problem of lack of interest from the farmers involved, exacerbated by drought which resulted in failure of the cropping trial. He also introduced the issue of finances, highlighting that brush packing with wattle only required labour, while fence had to be purchased and was a costly way of excluding livestock from areas being restored. Another point raised was that farmers have expectations of hand-outs due to precedent set by government. Bavuyise is the lead farmer who was involved on the experiment. He added some information about the practicalities of the ways they used to restore the grassland and stabilise gullies. Bavuyise highlighted that people are more interested in participating when they see the benefits of the treatment.

### ***Challenges***

Challenges encountered on the project included drought and farmers expectations of being given a lot more inputs and work being done for them as is the case with the Government maize programme. In the rehabilitation areas, the grass seed may have been planted too deep. Therefore there was poor germination.

### ***Future plans***

It would be helpful to get more formal commitments from participants (e.g. signed agreements) when inputs are involved. Maintain clear communication lines with farmers and team- monthly meetings. It is important to understand and manage expectations around the experiments, what people are observing and conclusions being drawn from the experiments.

### ***Questions and comments***

How to make sure that participants are there for the whole programme? Bavuyise pointed out that initially people were against the idea, but later as they saw the outcomes they started to participate in the programme.

Comment: Madondo added that the Landcare Programme addresses matters of soil erosion. However, it was also highlighted that LandCare programme does not work with these kinds of

programmes and there is difficulty in involving communities and NGOs in their programmes. It would be good if they could be working in that area and they may be prepared to support this.

Comment: Velelo and Sylvester highlighted that there are some basic principles that are important for ensuring the scientific integrity of the trial. This is in line with the challenge of different teams having planted different plots, which introduces variation that is not related to the treatment per se. Laurens added that in response to the challenge of working in an environment where other organisations work differently and perhaps providing more inputs, more time needs to be spent on introducing the PID approach.

#### **4.4 Agroforestry systems**

Two presenters, Zinhle and Zanele from INR presented two case studies from the Bergville and the Ixopo areas. The details of the outcomes of these case studies are as presented below. The discussing following the two presentation raised questions around the differences between joint experimentation and on farm research or trial. This question was further discussed in relation to the presentations.

Case 4 – Agroforestry trial in Bergville:

Zinhle shared the experience from Bergville of working with a small-scale dairy farmer to test various fodder species for feeding dairy cows. The experiment was about introducing the ideas of agroforestry, using Acacia trees and fodder species (cocksfoot, Lezbedeza and maize). The benefits of agroforestry include soil fertility improvement, fodder, timber, fuel, wind breaks, shade, and live fences. Thabo oversaw the experiment and came to present his experience with the project. He talked about the challenge of soil erosion in the plot as well as birds stealing seed that had been broadcast. He is keen to plant lespedeza because he sees it has strong roots and will prevent soil erosion.

##### ***Questions and comments***

Mazwi raised the point that there are opportunities to integrate agroforestry into his cover crop work.

Laurens asked us how we can highlight the difference between what we are doing and what we would call “on-farm research”. Zinhle responded that it was based on the farmers’ interests. Sylvester added that at the start people don’t know what you’re working on but as the process goes along people get more interested and more likely to participate. Lumko highlighted the need to do a cost benefit analysis to know how the intervention compares with commercial feed. Zanele added

that input from farmer and his past experience informed the way that the acacia leaves were processed.

### **Ixopo- Highflats Agro forestry**

INR is running a five year project on water use of agroforestry systems which is funded by Water Research Commission (WRC). In this project, there sites have been identified where farmers are working with researchers to investigate the potential of agroforestry in the areas. The farmers engaged in this project are members of Ubehlebezwe Livestock Association and Local Municipality. INR held a meeting with Ubehlebezwe Livestock Association and Local Municipality and asked for people who would like to be part of the experimentation. Five farmers were identified to conduct and informal research on their sites.

These farmers were interested in the project as it speaks to improving fodder production which is important for their livestock production. The following plant or tree species are planted on the identified sites, Sesbani sesban, Faidherbia albida, Pigeon peas, in fenced gardens. In a few of the gardens a lot of grass; kikuyu, but still made rows and or basins and planted the trees. Challenges; hail damage, poor germination and pigeon pea is not adapting well to the local climate, or it could be soil related. INR is planning to continue with a field day, involving more farmers, establish a documentation process, soil characterisation, farming learning visits and formation of a learning group.

This discussion following this presentation raised the following questions; **let's think about the** difference between PID and on farm research – What are the necessary steps for up scaling the experimentation process

## **4.5 Inkuku khaya cage experiment**

Two presenters from SaveAct, Nomonde Mncube and Dumisani Magubane and the farmer(s) involved in the experimentation gave a presentation on the two different methods of rearing chickens. In this project SaveAct and the farmers used a chicken cage produced by the company "Inkuku khaya". Therefore, there was a confusion as to whether this was experimentation or a way to promote the cage for Inkuku khaya. Therefore the main question which rose from the discussion revolved around if testing existing commercial technologies falls within the PID framework. The details of the presentation and the discussion session are as presented below.

*Inkuku khaya PID experiment: Presented by SaveAct*

Nomonde and Dumisani presented on their experiences with PID. SaveAct introduced a new system of farming broilers using crates and compared it with farmers' previous methods. She said that farmers were unfamiliar with the approach and are used to being "fed" with information from outside about the "right way of doing things". Farmers saw need to write down the roles of the different stakeholders. Farmers too decision to remove the chickens from the cages at 4 weeks of age because of the sore feet and lameness. Useful for farmers to be involved in evaluating introduced technology. However over all they consumed less food and grew heavier in the cages (i.e. they had a better feed conversion ratio). They had challenge of commitment from farmers and keeping of records. Also farmers removed the chickens, possibly the first time that farmers took responsibility for a decision? There were ideas proposed for modifying the initial idea of growing the chickens to 6 weeks in the cages. Mr Molife was able to add the experiences shared by the SaveAct staff. He said the chickens in the cages had poor feather development compared to those on the sawdust. He felt the cage is only good for the first two weeks then they should be kept as previously on sawdust. Mr Skosana also shared his experiences.



Figure 4.1: Kgotso translating for Mr Molife while he gave feedback

Malinga asked whether Inkuku kaya is rewarding farmers for advertising their crates – and whether the information is being fed back to the company. Avrashkwa also was concerned was that this wasn't PID and felt that the farmer's modification of the crate was more in line with the principles of PID. Velelo felt that PID is about testing things and in this case it was a commercial product – he felt that testing it and seeing whether it worked is more important – especially as farmers showed different experiences. Lumko also who had a question – they asked what the original selling point

was for using Inkuku khaya. Nomonde said that it addresses the issue of needing to collect or buy bedding and the chickens use less energy moving around and therefore is more efficient. Lumko asked how we could use of our ideas to build a similar product that generates the benefits without having to buy the cage. Laurens asked why from 12 people only 4 remained. He highlighted that while this was presented as a problem it is perhaps an opportunity for learning. We can also learn from the people who dropped out why they left – and see how we can improve our work. Mr Molife said that one of the reasons for drop outs is that people are old and the youth are not involved. This raises need to consider the economic aspects as young people will not get involved unless there is money to be made.

#### **4.6 Comparing the local varieties of sweet potato with other varieties**

The presenter from MDF Michael Malinga together with the farmer gave a presentation of the preliminary results for the sweet potato project at eMazwazini. Since the sweet potatoes were not yet ready during the feedback session the presentation focussed more on how farmers were engaged in the project and the obvious observation from the field. The discussion following the presentation raised the question around how the experiment was laid out and why? The details of the presentation are as presented below.

##### **Case 6 - Sweet potato innovation at eMaswazini**

Michael's presentation looked at suitable varieties, their need for fertilizer application and effect on taste. It should be noted that the potato varieties had Zulu names. A comment from the farmer *"Definitely needs to continue to quantify the potatoes and to compare taste – and the farmer sharing day"*. The benefit of the "mother" trial (where the members worked together) as well as the baby trials at individual homesteads ensured that at least the main trial was well fenced and yielded results even though three of the baby trials were damaged by livestock.

Michael then presented about Mahlathini work at Nkandla. They have been testing CA and cover crop practices in their lands. They have been using a tractor to pull the animal-drawn planter. He highlighted both physical challenges (e.g. drought) as well as some social challenges for broader uptake (farmers are retired professionals who do not have strong links with the broader community).

#### Questions posed by Michael:

Is a 3-legged pot still a pot if it only has two legs?

In the case of “not an innovation” ... what to do?

Velelo raised a concern that they should have also applied fertilizer to the local variety to be able to test the effect – a question of experimental design. Madondo wanted to keep the control (local variety) as is and not interfere with it.

Erna added that MO is doing work in different ways – for example with CA there is a need to train people to do the practice, while with other sites the groups plan their own trials. This also requires different levels of cohesion amongst the group. There is a need to introduce new practices step by step to allow farmers later to have capacity and understanding to start experimenting with the practices.

#### **4.7 Three experiments from Sinethemba**

Mr Madondo gave a presentation on three case studies from Potshini in the Bergville area. The subjects of each presentation is as presented below.

##### *Case 6 – Sinethemba’s layer experiment*

Madondo presented about PID implemented by Sinethemba as well as Mahlathini. Three topics covered include:

- Crop rotation versus intercropping
- Caged versus free range layers
- Planting potatoes in sacks.

The layer experiment was a comparison of systems (different management and different feed). They were comparing free range on maize with caged and fed mash. Cropping trials face a challenge of livestock damage, as well as the effects of climate change. There were also social challenges where people did not want to work on the trials. The potato planting method (sack) was compared against conventional method. The sacks did not work because the plastic is not UV resistant. Comparison of layers in two systems: Hens in cages laid well, but with free range hens they laid in the napier fodder and dogs also stole eggs. Then he started feeding all of them maize not layer mash and then egg production reduced completely. Then he removed all from the cage and combined all and fed them mash. He wanted to confirm that it was the maize that was causing reduced production. The cage is a problem because the eggs are dirty because the bottom of the floor dips in the middle and that’s

where the eggs collect. Mrs Hlatshwayo was also given an opportunity to share her experiences with trying different cropping practices at Emmaus.

Velelo asked whether the laying is dependent on the diet. Brigid responded that they need a balanced diet so crushed maize alone is insufficient – so this would be the reason for reduced production.

A process question from Erna: these small experiments were only done by 1 or 2 people, how could they be expanded to involve more farmers. Madondo responded that the Farmers Forum might provide a vehicle for sharing of outcomes. Erna also added that while small groups try and then share with larger groups – but adoption will not take place unless there's a "wow" moment.

Zinhle raised a question to the group: that Mr Mduba was not interested in coming to share because there were no results. So how do we encourage farmers even when their experiments have failed? Sylvester said that we must accept that sometimes what we find is that something we tried didn't work (we need to consider both sides). Velelo highlighted that for farmers, as opposed to farmers, it's a more sentimental issue and failure is more personal.

Bulelwa responded to the issue raised by Sylvester and Velelo regarding farmers' perceptions of failure – she says its better if it worked the first time, then one has more hope to try it again.

## **5. Recap or reflection sessions**

### **5.1 DAY 2: Reflection session**

The second day of the workshop started with a recap session and it was facilitated by Erna Kruger. Participants were asked to reflect on the content of the previous day. Bavuyise said he'd like to try chicken innovation at home, while Lumko added that it was interesting to hear from Mazwi how the mulching practice is being used in Matatiele. Erna directed participants in to thinking around the process aspects and to consider issues that require more discussion. The participants discussed these and some of the issues raised included:

- A description of the PID process
- Problem identification, generation of ideas
- Design of experiments
- Implementation
- Recordkeeping and monitoring

Recordkeeping was a bit of an issue. Farmers found monitoring forms sometimes to be too complicated, even if translated. Some farmers made their own records. In other cases photos were taken and observations gathered and recorded by field staff

Information sharing and generation of new ideas in group and involving farmers and mostly by farmers is important in this process. Collaboration by outsiders (NGOs and Governments and researchers) needs to be able to happen in a way that supports this learning process from farmers.

Roles of stakeholders: Extension is a process that is done by government and NGOs and farmers. Roles need to be clear and ways in which collaboration that is meaning full needs to be discussed.

Participation: will often fall off during the process. Participation in the group is important and choosing participants with real motivation, but also participation in the rest of the community is important thorough introductions of the ideas to neighbours and others, having farmer's days, discussions cross visits etc. Stakeholders should also be prepared to be involved there.

Specific points raised were:

- Methodology
  - Record-keeping
  - Implement in more than one area
  - Information
  - Funding

A series of short sessions interspersed between presentations drew out issues within the PID process for further discussion

- PID method/process steps:
  - Problem identification
  - Generation of ideas - look also at interest and resources
  - Apply ideas; control and experiment
  - Sustainability; sharing in group, with neighbours, word of mouth, farmers days and reports, photos
- Methodology/ recordkeeping
  - Questionnaires' given to farmers tend to be too complicated and long- even when translated into the local languages
  - Work with farmers' initiatives to do record keeping
  - Biases towards scientific interests - complication

- Implementation in more than one area
  - It's good to repeat the same process in more than one place or more than one locality to be able to compare well
- Information sharing
  - Encourage information sharing throughout the process and often
  - Continual generation of new ideas and techniques
- Funding
  - Budgets are often insufficient and short term
- Participation within the groups and community
  - Issues of retaining full participation – participation dies down over time
  - Farmers to communicate with each other, other groups of farmers, extension and research; farmer forum, farmer to farmer extension farmers days.
  - Need to find relevant people who can participate and take it seriously
- Roles/stakeholders
  - Work with farmers ideas
  - Make sure farmers are participating
  - The importance of acknowledging and adopting local innovation
  - Local ideas versus introduced ideas
  - Farmer has idea, extension helps to implement idea, research explore/probes the idea
- Problem identification – shared ideas
  - Farmer level documentation to allow farmer learning and an active role for them
- System issues
  - PID links with the market
  - Collaboration between farmers, NGOs and business addressing relevant issues

Overall concern that we call many research / farmer engagement processes PID – and yet many of them are not truly farmer-driven processes that build on local innovations or ideas. Some of them test external technologies, some are very much scientist managed, for example.



Figure 5.1: Some fun during a break: Avrashka facilitated an “energizer” where teams had to spell out “PID”

## 5.2 Day 3: Session 1: Reflection

Zanele facilitated a round of inputs from participants about what they remembered or liked from the previous day.

### 5.1.1. Session 2: Group discussions

Zanele explained the process for the group discussions which were to focus on key issues raised during the first two days of the workshop.



Figure 5.2: Feedback session for group discussion

#### GROUP A

1. How best to monitor and document experiments in a way best suited to farmers?
2. What are the roles of the different stakeholders and how do we ensure meaningful collaboration?

#### GROUP B

3. How do we generate ideas and design experiments to ensure joint learning?
4. How do we create ownership of PID throughout the process?

The farmer group can decide which questions are of interest for discussion. Michael facilitated this discussion.

### **5.3 Feedback in plenary**

Each of the groups was allowed a chance to give feedback on the question they were assigned to tackle. The feedback from each of the groups is presented below. Furthermore, there was a question about the difference between cross-visits and local learning events.

#### ***Feedback from Group A***

Nomonde gave feedback on behalf of Group B.

- Recommendations for generating ideas and designing experiments for Joint learning:
  - Need to find a balance between situation analysis and project implementation timeframe
  - Ensure type of group set is fitting to the intervention
  - Expect withdrawal of participants in groups that are set around “common interest” – keep the groups flexible
  - Support local ideas, prioritise problem
  - Design experiment through PRA tools and capacitate facilitators
  - Have knowledge of external; intervention facilitator
  - External intervention must be introduced for an expressed need
  - Cost-benefit must be communicated
  - Be sensitive to the existing structures and how they operate
  - Build new ideas into existing structures and how they operate
  - Strengthen different components of the system.

There was a discussion because Sylvester raised the point that sometime the fieldworker feels that the real problem is different from that raised by the farmer. Malinga was concerned that fieldworkers should not be too quick to assume that they are better. Laurens added that it's the way that the situation is handled that will determine whether or not the process can move forward favourably. The recognition that there are different sources of knowledge should be acknowledged and valued.

### **Tema gave feedback on Group A.**

Recommendations for record keeping and documentation that best suits farmers:

- Simple
- Journals (Effective way of recording)
- Photography
- Practical observations (e.g. feeling soil moisture under mulch)
- Record sheets written in vernacular language
- Give farmers an outline of the main points and develop record sheets with them
- Telecommunications (e.g. use of mobile phones to communicate with farmers)
  - useful for farmers who cannot write
  - allows you to capture information when away from the field
- use of story boards

Recommendations for stakeholders:

- Networking platforms (e.g. working groups, war rooms)
- Intentions of different stakeholders (outcomes based, process based)
- Integrative decision making (consultation between stakeholders, collective decision making)
- Clarify roles and benefits (knowledge/tangible)
- Why are NGOs competing?
- Who is the researcher?
- Who is extension?

Tema highlighted that there had confusion regarding the LISF as some farmers thought they were being paid for coming up with innovations rather than being supported with resources to allow for innovation.

Regarding competition between NGOs, Bulelwa gave the analogy of one person having coffee, another having sugar and the third having milk and how they can complement each other if they collaborate. Omega highlighted that it even happens within DARD – even though different officials working with same farmers. These issues need to be discussed at platforms where resources can be combined instead of organisations competing. Malinga added that farmers are also led by organisations that have resources.

Laurens responded to the question of “who are the researchers / extensions”. He said that you can look at the triangle as different actors/organisations (normal way) **or** you can look at it as functions

(things that need to be done to make PID successful) – in which case you can consider who in the team is able to provide these functions or play the role:

- Extension=mobilising farmers (DARD or NGO or local farmer)
- Research=Analysis of findings (NGO or researcher or DARD)

### **Farmer group feedback:**

Madondo gave feedback on behalf of the farmer group.

- Record keeping and monitoring:
  - Emphasis on photography, need to be trained on how to take photos that tell a story
  - Need seasonal calendars to provide guide to farmer
- Roles of stakeholders:
  - Cooperation between researchers, extension and farmers
  - External role-players should consider farmers knowledge so they can add on what farmers already know
  - The relationship between DARD and NGOs should be strengthened so that they are speaking in one voice and avoid confusion
  - Extension and researchers' roles should be clearly defined along the whole value chain (sourcing inputs through to marketing produce)
  - Extension and researchers should play a key role in involving the youth – need creative ways of getting the youth involved, take it to the schools, etc.
- Joint learning
  - Experiments should be in different locations (replicated in different villages so if something goes wrong, farmers still have something to learn from farmers in other villages)
  - It should be made clear from the start if its experimentation to say if it all goes well, these is the expected outputs. If it goes wrong – these are the results that could be achieved – so farmers can take an informed decision about just selecting a few farmers so they can learn from few farmers and then more uptakes later - this would avoid disappointment.

General discussion - How do we create ownership of the whole PID process?

- Be clear that all parties have interest in the outcomes of the experiment – so ownership does not only lie with the farmers (they can't make decisions on their own).

- Farmer said what if you have challenges and have to use the experimental chickens
- Differentiate between ownership – need to be aware that there are objectives of the whole group so farmer cannot just take a decision to sell the products – even though we want the farmer to have ownership of the PID process.

NEXT SESSION: How to make cross-visits or local learning events more effective?

The question about the difference between cross-visits and local learning event was address using the following guiding question,

- What is the difference between a local visit and a cross-visit?
- From your experience how can you make this as effective as possible?
- Feedback from pairs to be captured by Mazwi

## 6. Planning the way forward

As a way forward, participating organisation were asked to put together proposal to apply for funding if their project required some continuation. This was more about dissemination or sharing of information from the PID studies with a wider audience. Table 6.1 shows the activities to be undertaken by the each of the participating organisations moving forward.

Table 6.1: Activities to be undertaken by each of the participating organisation moving forward

| Organisation                    | Planned action  |
|---------------------------------|---|
| SaveAct                         | Continue with poultry but allow farmers to modify rearing house   |
| Mahlathini – Sisi B (Matatiele) | Local learning for Matatiele (Sehutlong-Makhuleng – Manyalheng)<br>Farmers Day (21 <sup>st</sup> )  |
| Mahlathini - Mazwi              | We would like to keep runners over winter – we are half way through.<br>Looking at irrigation versus underground storage of runners over the possibly very hard frosty winter       |
| Lima – Mr Frere                 | Follow-up on destroying seeds of wattle that remain on the ground and germinate after cutting trees   |
| INR                             | Farmers' Day to share information about fodder crops (winter) in Bergville involving a wider audience<br>Farmers' Day at Ixopo on 14 April 2016<br>Winter fodder – oats at Zwelisha |
| FSG                             | Address current diseases<br>Construct improved houses<br>Learning event   |

## 7. Evaluation

Mazwi assisted Laurens (Figure 7.1) with a session to allow participants to evaluate the feedback session or workshop. The target was only for participants who had been part of the whole process. The whole group was asked to write cards about things that had gone well and things to improve. It was highlighted that involvement of farmers and use of local language was helpful. In terms of improvements we needed to allow more time for discussions and there was a feeling that farmers whose experiments did not go well, should have attended nonetheless to share their experiences.



Figure 7.1 Evaluation facilitated by Laurens and Malinga

The feedback received is summarized below (Between brackets are the numbers of responses with a similar intention)

*Positive, what people liked and recommend to do again in future training workshops:*

- Farmers involvement in workshop; particularly good their involvement in reporting on the PID experiences, changed the tone of the workshop, brought them stronger in the PID process (8)
- Space for sharing and free flow of experiences, meeting with other farmers (6)
- Workshop facilitation, learning through small input sessions linked to discussion, interactive (3)
- PID content, concepts were clearly articulated (1)
- Good translation continuously (5)
- Good workshop that strengthens our efforts with farmers, (3)
- Learned a lot on various technologies, e.g. sweet potato, chicken rearing, tree plantation (4)
- Gained wisdom understanding on the PID process

### Suggestions for improvement

- Increase the time period of the workshop (2)
- Farmers involved in experiments that were not successful should be encouraged to also join the workshop (2)
- The outcome of the workshop (report) should be shared with participants soonest possible (1)
- On the content of PID: More attention to problem identification and analysis, underline that PID is not a linear process – needs adjustment over time and location, and stress that there are many factors needing consideration in PID, more attention on design of experiments related to local innovation (s) for joint learning vs outside ideas (3)
- More time to discuss key issues, not to move too fast to next topics (1)
- Improve design of the overall PID capacity building (1); including
  - Add handouts or manuals, examples, that participants can refer to;
  - More direction and support to participants in PID pilot proposal development and implementation
  - Work with organizations on integration of PID ideas in the organization and in communities

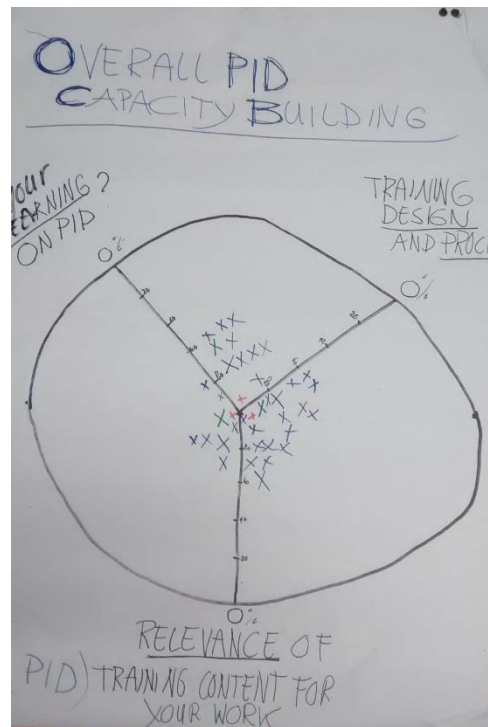


Figure 7.2 Evaluation facilitated by laurens and Malinga

## 8. Closure

Laurens highlighted the challenge to see how we integrate PID into our work. Some farmers had already mentioned that they were interested to test some of the ideas they had heard about this week. Overall, the feedback session was a success with an overwhelming response by the farmers.

## Appendix A Programme of the feedback session

| Date/Time               | Activity  | Translation      | Responsible                               |
|-------------------------|---|------------------|---|
| <b>Monday 11 April</b>  |   |                  |   |
| Morning                 | Travel to Africa Enterprise   |                  | All                                       |
| 12h30 – 13h30           | Arrival and lunch   |                  |   |
| 13h30 – 14h15           | Welcome and introductions<br>Recollection of first workshop<br>Plan for the 3 days  | Zanele           | Brigid                                    |
| <b>14h15 – 16h30</b>    | <b>Sharing and discussion of PID cases</b>  | <b>Zanele</b>    | <b>Laurens<br/>Flipcharts - Erna</b>      |
| 14h15 – 15h00           | Mahlathini case 1 – Trials in E.Cape  |                  | Mazwi / Bulelwa                           |
| 15h00 – 15h15           | Tea   |                  |   |
| 15h15 – 16h00           | Farmer Support Group – Poultry  |                  | Tema                                      |
| 16h00 – 16h30           | Discussion: Broad issues  |                  | Laurens                                   |
| 16h30                   | Closure   |                  | Brigid                                    |
| <b>Tuesday 12 April</b> |   |                  |   |
| 08h30 – 09h00           | Reflection on day 1   |                  | Erna                                      |
| <b>09h00 – 12h30</b>    | <b>Sharing and discussion of PID cases</b>  | <b>Michael ?</b> | <b>Brigid<br/>Flipcharts - Erna</b>       |
| 09h00 – 09h45           | Lima – Restoration work   |                  | Lumko                                     |
| 09h45 – 10h30           | INR case 1 – Experience from Bergville  |                  | Zinhle                                    |
| 10h30 – 11h00           | Tea   |                  |   |
| 11h00 – 11h45           | SaveAct – Broiler production  |                  | Nomonde                                   |
| 11h45 – 12h30           | Discussion: Broad issues  |                  | Brigid                                    |
| <b>12h30 – 13h30</b>    | <b>Lunch</b>  |                  |   |
| <b>13h30 – 16h30</b>    | <b>Sharing and discussion of PID cases</b>  | <b>Zinhle ?</b>  | <b>Laurens<br/>Flipcharts - Erna</b>      |
| 13h30 – 15h15           | Mahlathini case 2: Nkandla and Amaswazi   |                  | Michael                                   |
| 15h15 – 16h00           | INR case 2 – experience from Highflats  |                  | Zanele Shezi                              |
| 16h00 – 16h15           | Tea   |                  |   |
| 16h15 - 16h15           | Sinethemba – Layers / Ngoba / Emmaus  |                  | Thabani / Malinga<br>Simephi Nkosi        |
| 16h15 – 17h00           | Discussion: Broad issues<br>Closure   |                  | Laurens                                   |
| <b>Wed 12 April</b>     |   |                  |   |
| 08h00 – 08h30           | Reflection on day 2   |                  | Erna                                      |
| 08h30– 10h00            | Session 1:<br><ul style="list-style-type: none"> <li>• Group 1: discussion addressing key issues</li> <li>• Group 2: Farmer group discussion</li> <li>• Plenary feedback</li> </ul> | <b>Mazwi ?</b>   | <b>Brigid/Laurens<br/>TBC<br/>Malinga</b> |
| 10h00 – 10h15           | Tea   |                  |   |
| 10h15 – 11h00           | Session 2: Organisation and facilitation of exchange / cross visits and local learning events   |                  | Brigid                                    |
| 11h00 – 12h30           | Session 3: Planning the way forward   |                  | Brigid / Erna                             |
| 12h30 – 12h45           | Closure   |                  | Laurens                                   |
| 12h45                   | Lunch and departure   |                  |   |

## Appendix B Attendance Register



### TRAINING AND MENTORSHIP IN PARTICIPATORY INNOVATION DEVELOPMENT (11-13 April 2016)

| Name        | Surname        | Organisation | Contact No.  | Email                       | Signature    |
|-------------|----------------|--------------|--------------|-----------------------------|--------------|
| BRIGID      | LETTY          | INR          | 082 8711 048 | bletty@inr.org.za           | BA Letty     |
| J. N.       | Molero         | Matieland    | 0846887147   |                             | J. N.        |
| Omega       | Kubone         | DARD         | 0735382807   | Omega.Kubone@kardard.gov.za |              |
| Lepha       | SUKHOSANA      | Matieland    | 0781758102   | -                           | Lepha        |
| Laurans     | van Veldhuizen | KIT          | -            | l.v.veldhuizen@kit.nl       | Laurans      |
| Sylvester   | Selala         | INR          | 0734714146   | Mselala@inr.org.za          | Sylvester    |
| Khabele     | Bwabo          | INR          | 082 8813347  | Khabele@inr.org.za          | Khabele      |
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| Phumele     | Phaxathi       | Bergville    | 0732536168   |                             | Phumele      |
| Ichumile    | Zondo          | "            | .            |                             | Ichumile     |

TRAINING AND MENTORSHIP IN PARTICIPATORY INNOVATION DEVELOPMENT (11-13 April 2016)

| Name             | Surname                     | Organisation     | Contact No.  | Email                       | Signature           |
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| Phumtse          | Phokathi                    | Bergville        | 0732536168   |                             | Phumtse Phokathi    |
| Ichumtse         | Zende                       |                  | -            |                             | Ichumtse Zende      |