

A Rapid Field-based Livelihoods Analysis of Tiyei Activities

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1. Introduction

This report outlines the key points and observations arising from a visit to Tiyeni Malawi, between Wednesday 2nd July and Monday 14th July 2014. The aim of the visit was to undertake a rapid livelihood assessment of Tiyeni beneficiaries, in order to understand the ways in which Tiyeni is contributing to sustainable livelihoods throughout the region.

2. Tiyeni team briefing meeting

In an introductory meeting the various roles and responsibilities of Tiyeni staff members were outlined. These are highlighted below in Table 1.

Table 1 – Summary of the responsibilities of each of the Tiyeni team members

Evans Mkumbwa – Pod B

- Supervises livestock husbandry across the pods;
- Talked about how the community apply for Tiyeni technology; they build one demonstration site and then other farmers come and visit;
- Centres vary in the number of farmers – up to 21 in one, 3 in others; each centre has a radius of 5km, and all within a 40km radius of Mzuzu;
- Some farmers are applying from outside of the area; some come and see the demonstration gardens, see what is happening, discuss with staff and make a request through the centre;
- Within each pod it tends to be the village headman and TA leaders who are spreading the Tiyeni message; some have heard about Tiyeni via the radio;
- There are 4-3 village headman under each group village headman;
- Different physical environments create different challenges;
- The key issue in Pod C is that demand exceeds supply – there are not enough resources;
- There are two motorbikes between five staff, hence getting around is becoming very difficult; those who don't use motorbikes use pushbikes, or stay in the field with farmers.

Godfrey Kumwenda – Pod D

- Reported that Pod D has just been established, but because of 'pressure' this needs to be allocated to another field officer;
- Key challenges identified are that there's always a demand from farmers for more centres, which means pressure on the field officers, which means reduction in quality of work that can be achieved;
- Tiyeni works closely with the Ministry of Agriculture and Food Security (MAFS) but cannot cover great distances due to transport issues. There is no budget for transport expansion at the moment, and this needs more money;
- Government agricultural extension workers have been impressed with Tiyeni activities and have asked "why are you hiding?" when they've visited the sites. They want to get involved in training the lead farmers;
- Tiyeni staff have also been in contact with JICA and the agricultural research station, and have had invitations to go to offices to share ideas;
- JICA suggested improvements for the Open Day, in particular the need to showcase the different stages of the Tiyeni method, and they suggested that farmers themselves should be running the Open Day – so that they have ownership over the process. However, it is recognised that farmers do need help from Tiyeni to set these events up. The Open Day next year is in March, and Godfrey hopes that the trustees can visit.

Chance Mwenitete

- Has been the accountant for 5 months, and has joined "during a period of rapid change";
- The key issue for him is that "finances are not enough ...some areas of operation have not been considered";
- Has discussed NGO registration and is waiting for confirmation from Colin.

Jimmy Luhanga – Pod C

- Joined Tiyeni part-time in November and has been full time since January;
- Works on Pod C in 3 centres;
- Sees the greatest challenge as mobility – he uses a pushbike and has to cycle for over an hour just to reach the sites (26km round trip);

- Has 45 extension farmers under his supervision, all whom are benefitting greatly from Tiyeni activities;
- Visits three centres per week on specific days.

Namelord Phiri – Pod A

- Has been employed for 14 months and works in Pod A where there are 5 centres and over 150 farmers;
- People appreciate the system and more and more people want to join since they are seeing the benefits accruing to other farmers – more money in pocket and more food;
- Was using a pushbike but is now using the motorbike;
- Made the point that Tiyeni is teaching ownership. They give farmers the ‘starter pack’ in year one and the training is for life. Local leaders are trained and these train other farmers. Lead farmers train others off their own initiative – “...they do it out of their own will and interest”;
- At Honga, one farmer started in 2010 and has expanded throughout her land. This is the way sustainability is embedded within the project. Other farmers are spreading the information.

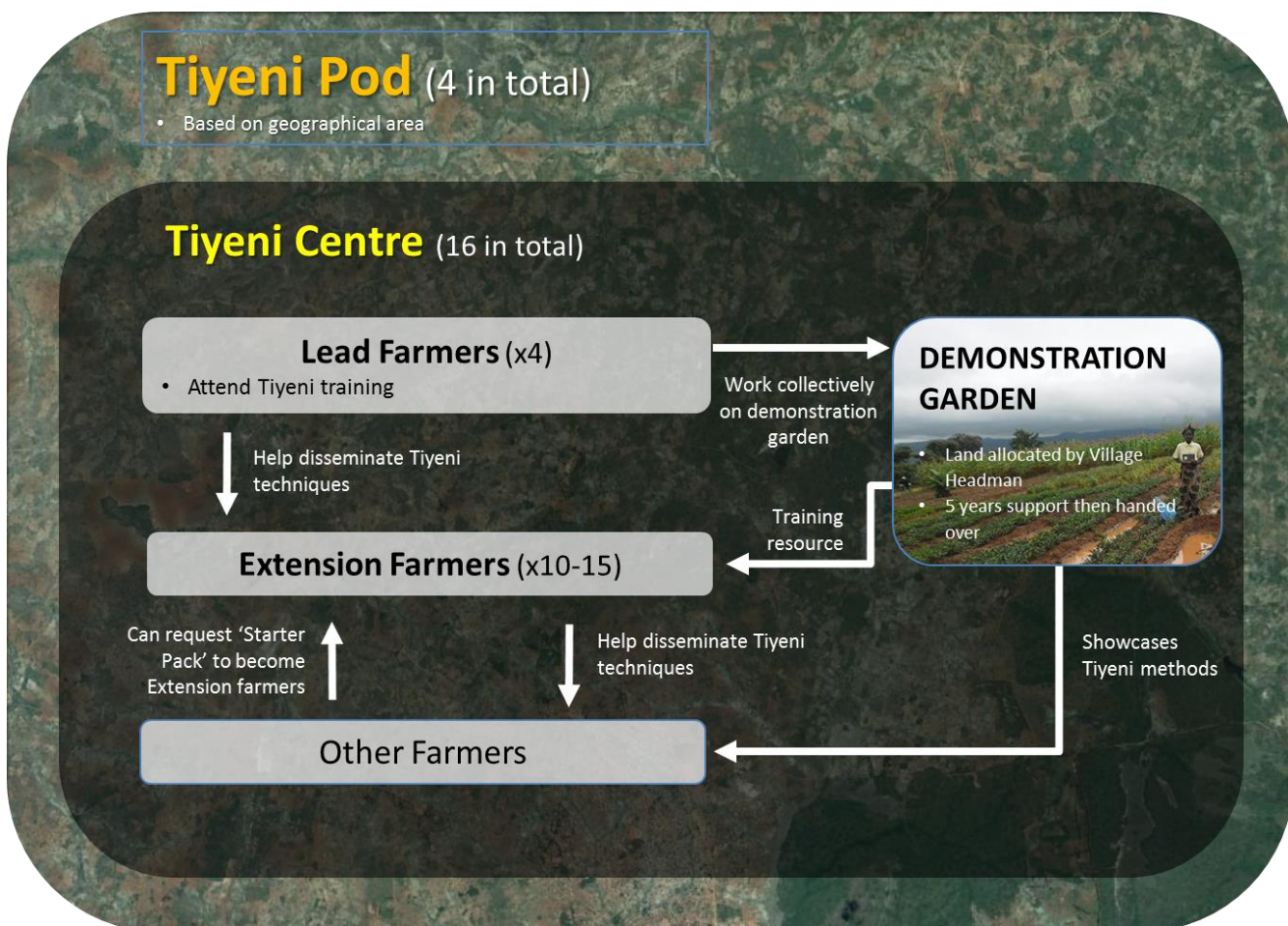
Khalani Longwe

- Has been working for 5 days and is still orientating himself;
- Has previously been a teacher in secondary school – agriculture and geography;

Mary Gondwe

- Gave a history of Tiyeni since its inception;
- Feels we need to spread Tiyeni practices to other farmers;
- Sees marketing Tiyeni produce as being important;
- Feels we could also engage in agroforestry and support dambo use during the dry season (winter);
- Notes that Total Land Care have sent staff to observe Tiyeni activities;
- Commented that Find Your Feet could have provided a 4 x 4 had Tiyeni been registered.

Figure 1 – Structure of Tiyeni Pods and Centres.



3. Tiyeni site visits (Tuesday 8th– Friday 11th July)

3.1 Choma Extension Garden and Choma Demonstration Garden

- Choma extension garden was constructed two years ago; legumes (groundnuts, peas, soya and beans) and maize are cultivated in rotation.
- There are currently 6 farmers working in this site.
- A 'tenancy' agreement for 5 years has been signed with the village headman.
- Apart from food crops, Taphrosia is being cultivated for its soil fertility properties.
- *"We appreciate the Tiyeni technology... it's a good method. This year the rains damaged many crops but here, where we have beds and box ridges, there was no washing away"*.
- *"With the yields of maize there's a big difference between Tiyeni and non-Tiyeni fields"*.
- *"Last year this area produced 50 kilos of groundnuts... which is 30 kilos when shelled"*.
- *"We didn't sell our surplus that we produced...we shared the produce, and everyone kept some as seed for next year. If there is any surplus produced we give it to the orphans, the needy or the disabled"*.
- *"This is a food insecure area... because of land degradation. There is too much cultivation and not enough manure or fertiliser"*.
- *"We didn't believe that it would work but now we can see that the maize is growing so high"*
- *"When I was using the normal method I could harvest 40kgs after planting 1kg of maize seed. Now, with 1kg of seed, I can have two bags of 90kg each"*.
- *"The harvest we have got from this... we wish that Tiyeni can carry this message to every house, so that all the houses around here can have food like we have food."*
- *"Climate change is a problem and I think it is affecting the whole country, but this Tiyeni technology is helping to combat the climate change. When there is a dry spell the whole process of farming is affected, but because of this technology the crops during the dry season will survive."*
- *"We have the problem of transport here... we have to carry our produce on our heads. We would appreciate wheelbarrows if there is a chance"*.
- *"Also, we need more manure... the one that we buy is called Chitowe"*.
- *"We would also like to start using the dambo... and we would like watering cans so for irrigation... and treadle pumps too"*.
- *"And I forgot to say that our orphans and the elderly also need assistance... blankets"*.
- *"We want to say that we started very small but now we have grown... we are the nucleus from which the Tiyeni method will mushroom. Please carry our regards to your trustees and give them our greeting"*.

Figure 2 – Tivious Banda in her extension garden at Choma.



Figure 3 – Some of this year's maize harvest on show from Choma demonstration garden.



Figure 4 – Ivy Trindade shows maize cobs produced using Tiyeni methods (right) and non-Tiyeni methods (left).



Figure 5 – Tiyeni improves food security for the very poor and marginalised: Eldas Chavula in her extension garden.



3.2 Matuli Demonstration Garden

The main purpose of this visit was to see a demonstration of compost making and talk to farmers about their experiences. Mr Alias Theu, Lead farmer commented:

- *“If we compare the Tiyeni manured gardens with the non-manured gardens ... you get very big cobs of maize, and these gardens keep in moisture for a longer time. Even when the rain doesn’t come, our gardens keep in moisture. At the same time, we harvest more on very little ground”.*
- *“The difference is very great, because with Tiyeni fund and a small portion of land you can get a lot of money and food. With non-Tiyeni fund gardens, people are getting very little for consumption for their families”.*
- *‘People are coming here for advice... and we hope next year that we will become more than we are now’.*
- *“We need a lot of things from Tiyeni for the future. We want to have nursery schools, so that people can see the benefit of Tiyeni. We also need better shelter”.*
- *“Sometimes the rains are coming very late, sometimes they are coming very little... so they are affecting our cultivation process. But because of Tiyeni fund and these beds, mostly it can retain for a long time... and that is to our advantage. It helps us a lot”.*
- *“We need transport so that we can visit other farmers... we need to see what our friends are doing somewhere, and those again to see what we are doing here. We need to build up our knowledge”.*

Martha Muthali, chair of Tiyeni group:

- *“The problem we are encountering here is that we have less hoes for our garden. This means that when we are working, some people are idling because hoes are few”.*
- *“We have learned how to make bokash manure which means we have to buy less fertiliser which is very expensive”.*

Figure 6 – Mr Wadokota Jere prepares bokash manure.



3.3 Kajiti

At Kajiti we talked to Mr Banda, the chairman. Key comments / points raised included:

- The demonstration garden has been located near the school so that children can learn the techniques.
- The yield is perceived to be very good in comparison to “non-manured” areas.
- Another new demonstration site is planned for this area with lead farmers being trained later in the year.
- Four have already been trained this year, with 15 extension farmers.
- The chair here was informed of the Tiyeni technology from the chair at Lusangazi who invited him to see the demonstration garden there. He was very impressed and subsequently organised people here to apply. This was not difficult to organise, “...everyone wants to be involved”.
- One recognised problem here is that the soil (outside of the Tiyeni gardens) is not perceived to be fertile.
- *“We have hunger here... there is not enough food to feed our families, particularly between December and March”.*
- *“For the future we would like pigs so that we can make manure. We also need sickles for cutting grass and machetes. And wheelbarrows and shovels”.*
- *“We desperately need irons sheets for the roof of the school – 64 in total”.*

Figure 7 – The Kajiti demonstration garden.



Figure 8 – The Kajiti villagers with (roofless) school behind.



3.4 Honga Lead Farmer training (Thursday 10th – Friday 11th July)

For the remainder of the visit I attended a two-day lead farmer training session at Honga. This was officially opened by MG and facilitated by EM, GK and NP, with KL also helping with activities. The first half of the training consisted of introductions, questions and discussions on the responsibilities of a lead farmer. This was followed by practical demonstrations (with the assistance of Mr Msukwa, agricultural extension and development co-ordinator agent for this area) on marker ridge construction, deep bed construction, vetiver grass planting, and crop spacing.

Key issues / comments:

- Tiyeni staff (and Mr Msukwa) all assisted each other and had an excellent rapport with the assembled farmers. Indeed, one of the most impressive elements was the way in which the team devolved responsibility to the farmers themselves during the practical demonstrations, effectively facilitating experiential and problem-solving learning.
- I was aware that there was a lot of material from the training programme hand-out that was not covered during the two day workshop (e.g. manuring and mulching, compost making, pig farming). It was explained to me that ideally, this training should take 3 – 4 days, but that funds and resources precluded this (Tiyeni pay for lunch and soft drinks).
- Clearly, transport remains a big issue for Tiyeni in terms of being able to facilitate these training sessions. Obviously a 4x4 would be invaluable here in transporting equipment and personnel to the field.

Figures 9 and 10 – Framer training at Honga.

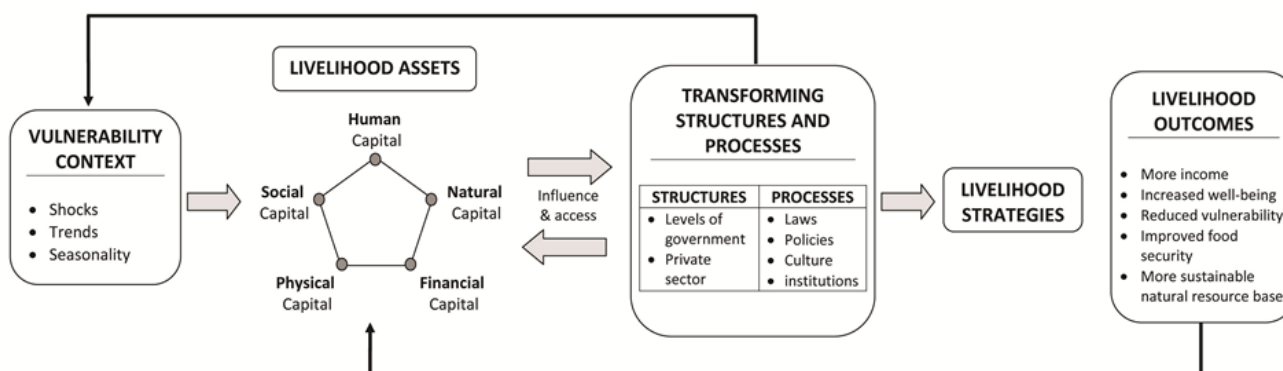


4. Tiyeni activities and Sustainable Livelihoods

One of the key aims of the visit was to understand how Tiyeni is contributing to the livelihoods of its beneficiaries – not just in terms of increasing crop production, but how this in turn leads to other social, economic and environmental benefits. This, ultimately, is how progress needs to be measured. Food security is of course a primary concern, but it is critical that Tiyeni maintains an awareness of how this contributes to the wider development needs of the population; it needs to demonstrate that it is feeding people *and* contributing to poverty reduction in a wider sense.

The Sustainable Livelihoods Framework (Figure 11), developed by DFID and IDS in the late 1990s and early 2000s continues to be a useful tool for analysing peoples’ livelihoods and the various factors that influence this at the community level and beyond. During this visit it was used as a checklist for information gathering, and while there was not really sufficient opportunity to spend several hours in conversation with individual households, it enabled a picture to be built up of the different livelihood components typical of Tiyeni beneficiaries, and critically, how these are changing through Tiyeni interventions.

Figure 11 – The Sustainable Livelihoods Framework.



4.1 Vulnerability Context

Farmers repeatedly cited the weather as a key factor influencing crop production. Some specifically mentioned climate change, the main effect of which was seen as unpredictable rainfall. While excessive rainfall was also mentioned as a cause of soil erosion, flooding and a reduction in crop yields, there was widespread recognition that areas under Tiyeni cultivation are more resilient to this. The idea that Tiyeni practices are promoting community-based resilience to climate change is a powerful message, and one which has undoubtedly been taken up by project donors¹.

Other sources of vulnerability typically include labour shortages, illness, and changes in family or community responsibilities. Several farmers mentioned that their surplus produce goes to feed dependants rather than being sold for cash. Insect pests are also recurring problem with which farmers must contend.

4.2 Livelihood Assets

Livelihood assets are the different forms of capital on which livelihoods are built. They inevitably differ from one household to the next, and are constantly changing over time.

¹ For example DISCOVER and ECCRP (Enhancing Community Resilience Programme). (<http://www.cepa.org.mw/programmes/ECCRP>)

4.2.1 Human Capital

Human capital assets constitute the skills, knowledge, health status and ability of people to work. While those people involved with Tiyeni clearly have extensive knowledge of farming, it is clear that Tiyeni is playing a significant role in introducing new skills and practices. Moreover, there is an eagerness to learn on the part of farmers, and to share what they have learned with others. In this sense, there is little doubt that Tiyeni has been successful in enhancing human capital in the areas in which it works but also beyond via informal farmer-to-farmer extension. Again, this is something that Tiyeni can promote and should capitalise upon, in terms of developing (and showcasing) farmer extension networks.

There are, however, some bottlenecks in human capital; as highlighted above, the elderly, the sick and young children affect the human capital resources available within each community. While this does not appear to play a significant role in limiting the success of Tiyeni at present (Tiyeni gardens are relatively small and can be managed by one or two farmers), it could become more of an issue as Tiyeni 'fields' expand in area within communities or household units.

It is perhaps also worth mentioning that there was a fairly even gender mix of those involved in Tiyeni activities, and in many cases women appear to have been more active in 'trying out' Tiyeni practices – with men following afterwards. In terms of gender empowerment, this is encouraging, although it would be interesting to establish the extent to which this creates an additional burden for women (beyond their household and biological reproductive roles).

4.2.2 Social Capital

Social capital assets are the social relations and networks within the community that contribute towards a livelihood (e.g. relationships of trust and reciprocity, and local institutional arrangements). Tiyeni itself has certainly created and enhanced social capital within its target communities in terms of engendering a sense of belonging to the Tiyeni 'club'. The demonstration gardens themselves also arguably represent the physical manifestation of social capital; they are arenas where farmers with shared values work co-operatively for the benefit of the group (and themselves), and they are areas where specific skills and practices are voluntarily disseminated to others.

While these Tiyeni institutions do not appear to have any formal linkages with other institutions or groups within the village or area, they do, nonetheless, appear to be legitimised through the Village Development Committee (VDC) and the village headman. There was certainly little evidence of any conflict between Tiyeni and non-Tiyeni 'members', which can often be the case when external institutions or groups are imposed within communities. Indeed, the impression is that those members of the community currently not involved in Tiyeni activities, do aspire to be involved, and many, through their own initiative, seek advice from lead or extension farmers. The key here seems to be that Tiyeni promotes self-reliance through training and skills development, rather than supporting people through the continued provision of inputs and physical resources (which can often breed resentment from those not 'selected' as beneficiaries).

There were other indicators of social capital within the communities visited. The donation of surplus food to orphans and the elderly clearly signifies a sense of community responsibility. This bodes well if Tiyeni were to consider the establishment of village savings and loans initiatives within its centres.

4.2.3 Physical Capital

Physical capital assets include tools, equipment and the basic infrastructure that help people develop a livelihood. Tiyeni provides hoes, pick axes, wheelbarrows, and line levels to Lead Farmers to support the development of demonstration gardens, and hence improved crop production. It has also supported the provision of nurseries at some of the centres, and many centres have received support for the construction of piggeries. Despite this, the majority of the rural population have little in the way of physical capital assets; poor physical infrastructure (roads in particular) has a significant impact on other capital assets, not least human capital in terms of the lack of health and education, and financial capital (see below) with regards reducing opportunities for livelihood diversification and marketing.

It is unsurprising, therefore, that farmers were requesting more equipment. As noted in previous sections, wheelbarrows to transport manure, machetes and sickles, and bicycles for transport are being sought for both lead and extension farmers. Although equipment provision is restricted to Lead Farmers at present, extending this to extension farmers in the future, funds permitting, could produce significant benefits at a relatively low cost.

4.2.4 Financial Capital

Financial capital assets include the cash income, savings and credit facilities available to people. It was not entirely clear from the visit what the proportion of cash crop to subsistence crop is. While subsistence farming (maize) dominates production at most Tiyeni centres (only one farmer discussed the sale of surplus produce), soya and groundnuts are grown for sale at local markets, generating a cash income. Moreover, for many, Tiyeni-driven production is one activity in household's diverse livelihood portfolio which can include charcoal production or livestock rearing. The latter (pig husbandry in particular) represents an important financial capital asset; pigs can generate significant income through their sale, loan, or slaughter. Nonetheless, it is clear that most people have a severe deficit in financial capital assets.

There are no microcredit or savings arrangements operating at the local level, and this could be one initiative that Tiyeni may want to consider in 'adding value' to its existing activities.

4.2.5 Natural Capital

Natural capital refers to the natural resources, stocks, flows and services from which livelihoods are derived. Although time constraints curtailed any detailed discussion of natural capital assets within Tiyeni sites, it is evident that farmers have access to:

- **Upland fields** which farmers access either as household customary allocated land, or in the case of Tiyeni farmers, land allocated for communal management as Tiyeni demonstration gardens. Upland fields provide the majority of agricultural produce, and farmers suggest that yields are significantly higher on land where Tiyeni practices have been adopted.
- Upland fields are also providing the resources for bokash compost production. Nonetheless, soil fertility and the need for manure or fertiliser remains a key issue and need identified by most farmers.
- **Dambo** land in the valley bottoms, which some farmers are already using for winter farming in order to supplement their household food production during the traditional 'hungry season'. Some farmers want to cultivate dambo but mentioned that it is too wet and requires co-

ordinated effort in order to manage. Some farmers indicated that dambos also provide water for drinking, washing and livestock.

- **Forest** which is a significant livelihood resource in most areas. Despite tree felling and charcoal burning being illegal, this continues to occur and forms a lucrative element of many farmers' livelihood portfolio. Trees and shrubs such as Tephrosia are valued as a means of increasing soil fertility, but there was no indication or evidence of active forest conservation or afforestation being implemented as a means of facilitating ecosystem services such as soil and water regulation, or groundwater recharge. Although other uses of the forest are likely (non-timber forest products such as fruit, medicinal plants, and game), these were not discussed during the visit.

It is important to appreciate that these resources are multifunctional in nature, and through various socio-ecological processes they support and enhance each other in contributing to a wide range of livelihood activities. As outlined above, the ways in which they are used are determined by the availability of other livelihood assets, but also shocks and pressures such as fluctuations in climate, macro-economic change, and human health.

4.3 Transforming structure and processes

Transforming structure and processes are the institutions (cultural, political, social and economic) and policies that influence livelihoods. Typically, these play a key role in determining the extent to which people can access land and livelihood assets, and ultimately earn a living. Tiyeni itself can be seen here as a critically important facilitating institution that influences and enhances peoples' ability to develop a sustainable livelihood, and in a sense, it is filling the vacuum left behind as a result of declining government investment in agricultural extension (this was alluded to on several occasions by farmers, Tiyeni staff, and the agricultural extension worker himself). Other institutions include the Village Development Committees (VDCs) and Area Development Committee (ADCs) both of which evidently have a good working relationship with Tiyeni staff (VDCs are keen to facilitate the extension of Tiyeni activities) and ADC representatives have attended Open Days. Indeed, VDCs play a pivotal role in allocating land for Tiyeni demonstration gardens. There was no evidence of active Village Natural Resource Management Committees (VNRMCs) being involved in Tiyeni activities, yet working more closely with (or helping establish) this institution could potentially provide benefits in terms of the dissemination of ideas and the development of bylaws that institutionalise Tiyeni practices within the community (thereby reducing the likelihood of long-term dependency on Tiyeni itself).

While undoubtedly the current situation for farmers within the area has emerged from a series of long-term, national (and global) political and institutional processes (e.g. agricultural subsidies for maize production in the past) farmers throughout the visit were clearly more concerned with immediate and local needs and pressures, hence the direct impact of current government policies was difficult to establish. What perhaps is more evident, however, is the institutional and policy gaps that exist, and that are exemplified by, for example, the fact that farmers lack (market) incentives to produce certain goods or diversify their livelihood portfolio.

4.4 Livelihood Outcomes

People's livelihoods in and around the Tiyeni sites are dominated by maize production which most often is supplemented by the cultivation of a range of crops including peas, beans, groundnut, tomato, sugar cane, cassava and sweet potato, some of which is sold at local markets. Beyond

agriculture, people earn an income from timber, charcoal production, and products derived from livestock.

A key question for Tiyeni, in terms of assessing its contribution towards the development of sustainable livelihoods among its beneficiaries, is to what extent it fulfils the 'livelihood outcome' criteria as set out by the SLF. These are difficult to measure and clearly there is a need for more in-depth study and monitoring, but based on the experiences from the field detailed in this report, we can draw some tentative conclusions:

*Do Tiyeni beneficiaries have **more income**?*

Yes, in some (but not all) cases. Tiyeni farmers are experiencing higher crop yields, and although the majority of maize is being consumed within the community, other crops rotated with maize are being sold (although this is not the case for everyone). Key questions here include:

- *What is the difference in income generation between Tiyeni and non-Tiyeni farmers?*
- *How does income generation between Tiyeni farmers differ?*
- *What factors influence this, and how can Tiyeni enhance income generation?*

*Do Tiyeni beneficiaries experience **increased well-being**?*

Yes, to some extent. Certainly this is being achieved in terms of food supply, nutrition (and hence health), schooling, and enhanced social and human capital through engagement in Tiyeni activities. There is obviously more work to be done here in attempting to quantify and qualify more accurately who benefits and how (not everyone in every 'Tiyeni household' will be benefitting in the same way). Other questions include:

- *Does / can Tiyeni facilitate improvements in access to other goods and services?*
- *Does Tiyeni engagement result in significant changes in physical capital (e.g. shelter, transport)? For whom?*

*Do Tiyeni beneficiaries experience **reduced vulnerability**?*

Yes, to some extent. Reduced vulnerability is central to maintaining a sustainable livelihood, and farmers themselves have admitted that Tiyeni soil and water conservation practices have afforded them much greater resilience to the impacts of increasingly unpredictable weather. Food is more secure as a result, which enhances resilience to illness among the household and wider community. Furthermore, resilience has arguably been enhanced through the knowledge transfer networks (social capital) that Tiyeni has helped create through its system of lead and extension farmer empowerment. This provides an excellent 'breeding ground' for new ideas and practices to evolve and develop, thereby building and institutionalising adaptive capacity within communities. Nonetheless, Tiyeni cannot completely remove all vulnerability; their continued relative impoverishment in terms of access to basic needs, goods and services, means that communities' livelihoods will remain vulnerable to morbidity, mortality, and environmental and economic change.

*Do Tiyeni beneficiaries experience **improved food security**?*

Yes. Without doubt there is strong evidence to suggest that Tiyeni farmers are able to grow more food as a result of the success of Tiyeni's extension practices. This is not to say that they do not continue to experience intermittent food shortages, but rather that they are significantly less vulnerable to food insecurity than would otherwise be the case in the absence of Tiyeni practices. It is this success that has precipitated the demand for Tiyeni throughout the area.

*Does engagement with Tiyeni lead to the more **sustainable use of the natural resource base**?*

Probably. By its very nature Tiyeni's conservation agriculture practices aim to reverse the environmental degradation (erosion, water loss and declining fertility) associated with 'normal' upland crop cultivation practices in this area. The increase in crop yields suggest that these measures are successful, and hence at the very least, are not contributing to environmental degradation, although clearly there is more work to be done in identifying and quantifying specific environmental changes. Critically, through their engagement with these practices, participants are also enhancing their own skills and knowledge for environmental sustainability, which are of course eminently transferable to other contexts.

In summary, the evidence to date suggests that Tiyeni activities are having a significant impact on the livelihoods of their beneficiaries. While there are clearly many challenges remaining for people in the area, not least in terms of being able to escape poverty and develop a sustainable livelihood that goes beyond the simple fulfilment of basic needs, there is little doubt that Tiyeni is making a key contribution towards this through its modest implementation activities which contribute to social, economic and environmental well-being, while building resilience and adaptive capacity. Nonetheless, what this quick assessment also illustrates is the need for more study and information on the spatial and temporal dynamics of Tiyeni beneficiaries' livelihoods. Only by doing this and understanding the context in which it works can Tiyeni become more successful and strategic in targeting rural poverty and food insecurity, but also clearer about what it has actually achieved, with whom and where. This is something that the Tiyeni field team are aware of, and have plans in place to begin a process of monitoring livelihood change on an annual basis.

5. Concluding observations and thoughts from the visit

5.1 Current Tiyeni practices

As highlighted in section 3.4 above, there is little doubt that Tiyeni activities are having a positive impact on the livelihoods of those involved in terms of food security, increased well-being, and reduced vulnerability to change. Throughout the field visits I was welcomed by enthusiastic farmers who were eager to discuss their experiences and demonstrate how they practice their farming using techniques learned from Tiyeni. It was encouraging to note many farmers' plans to extend Tiyeni practices in their land and to disseminate these practices to others. In addition:

- I was impressed by the friendly, collegiate Tiyeni field staff who appear to get on with each other very well, collaborate effectively in the field, and have an excellent rapport with farmers;
- The location of demonstration sites near roadsides has clearly helped disseminate Tiyeni practices and generates significant interest among passers-by;
- Farmer to farmer extension is at the core of Tiyeni's activities, which arguably adds credibility and relevance to the message being spread. It also means that Tiyeni's activities are socially sustainable, i.e. the 'technology' does not rely on external intervention in the long-term, since it becomes embedded within communities.
- I was told by staff that they provide technical support to demonstration gardens for a period of five years during which there is a gradual scaling down in the level of support given so that farmers are encouraged to become self-reliant. It remains to be seen whether this strategy is successful, but it illustrates that the staff are more than aware of the need not to create dependency among beneficiaries. One suggestion for the future may be to involve farmers themselves in the planning of their own 'exit-strategy' during the final year of Tiyeni support

(which should centre on considering what the challenges may be for the future and how they could overcome these).

5.2 Aims and future targets

It was clear during the visit that Tiyeni has been evolving over time (e.g. the use of improved manuring / composting techniques is evidence of this) and this reflects the enthusiasm of the field staff who extremely keen to learn and adopt new ideas and methods which can enhance existing activities, food security and livelihood development. At present, Tiyeni is doing some fantastic work with limited resources, but throughout the visit it became clear that there were many opportunities to 'add value' to existing Tiyeni activities at little extra cost. Should Tiyeni just focus on deep-bed conservation agriculture? Related to this is the issue of whether, in the medium to long-term, Tiyeni seeks to extend its geographical coverage, or whether it focuses on the areas it currently works and seeks to develop activities that further enhance livelihood assets. Tiyeni is constantly receiving requests for new demonstration gardens, both within and outside its 40km operational radius, but in responding to these requests there is an obvious risk that it may spread its resources too thinly and in a manner which is unsustainable. Does Tiyeni seek further resources and funding to extend its activities geographically, or should it diversify its activities within current centres? The answer here is probably 'both', in the long-term.

There are, however, potentially some more immediate ways of enhancing what Tiyeni does:

- **Crop diversification.** Growing produce that is highly marketable is key. Is there potential to learn lessons from other projects and perhaps pilot the cultivation of different crops (which complement deep-bed cultivation)? Tiyeni's focus is on food security, but it should not lose sight of the fact that food security is only one component of building sustainable livelihoods.
- **Agroforestry.** This is already being practised to some extent with leguminous trees being planted within Tiyeni gardens, but it appears to be done on an ad hoc basis. Is there scope to formalise this within lead farmer training and within demonstration gardens?
- **Dambo cultivation.** Several farmers requested help with dambo cultivation (both in terms of equipment such as watering cans, and advice on farming practices). While dambo use has the potential to make a significant contribution towards food security especially during the dry season (thereby complementing upland Tiyeni cultivation during the wet season), it is probably too resource intensive for Tiyeni to consider at present. Nonetheless, staff are keen to identify ways of integrating dambos into their work, and perhaps there is scope to pilot dambo use at one site (Khankhulukulu, near Bula).
- **Extension material.** I noticed many missed opportunities for publicising and disseminating the Tiyeni 'message' during the visit – another important way in which value can be added to what Tiyeni does. It would certainly be worth considering investing some resources in the following:
 - a) **Display boards** at demonstration sites, which outline in graphical form the Tiyeni process and list the lead farmers taking part;
 - b) **T-shirts** printed with a diagrammatic (cartoon?) representation of Tiyeni farming, which could be given to lead farmers;
 - c) **An extension booklet** (handbook), written in Tumbuka and/or English which outlines and illustrates graphically the Tiyeni methodology. Again, this could be produced cheaply and given as a practical handbook to lead farmers (who could also distribute

copies) but also government extension agents or other NGO workers. It would also complement learning activities during the lead farmer training sessions.

- **Extension visits.** Facilitating site 'exchange' visits for farmers has long been regarded as an invaluable means of sharing ideas, experiences and good practices within rural development. Taking groups of (lead) farmers to meet their counterparts in other pods or centres would benefit everyone and would stimulate the bottom-up development and adaptation of Tiyeni (and other) farming methods.
- **Extension workshops.** The annual Open Day is an example of good practice in extension. Perhaps there is scope to organise something similar so that all Tiyeni farmers can meet and exchange ideas and good practice. In addition, Tiyeni could also be running extension workshops for extension agents from the government or other NGOs (these should include lead farmers themselves so there is a genuine bottom-up transfer of ideas, i.e. the policy and decision-makers are actually learning from the experiences of farmers).
- **Monitoring and evaluation systems.** This was discussed at length with the field staff who agreed that there is a need to monitor Tiyeni's progress towards achieving its goals of enhancing food security and livelihood sustainability. They are currently compiling data on crop yields, and will send this through to the trustees when complete. In addition, I left them with some information and checklists that can be used for monitoring changes in livelihood assets and outcomes on an annual basis.
- **Responding to farmer requests.** As noted elsewhere, farmers requested a range of equipment including wheelbarrows, watering cans, hoes, machetes, shovels and bicycles, all of which seem justifiable given the nature of farm activities and the way Tiyeni encourages the grassroots, farmer-to-farmer dissemination of its methods.
- **Engaging in wider collaboration.** People want to work with Tiyeni because Tiyeni works, yet collaboration to date has been quite limited mainly because of the size of Tiyeni and the limited resources available. Future potential areas of collaboration could include students (e.g. University of Worcester), other NGOs (e.g. Self Help Africa), academic institutions (e.g. Mzuzu University) and government institutions.