May farming make a contribution to poverty alleviation in a "deep rural" area in South Africa? –

Lessons from Oxfam GB's Sustainable Livelihood Programme at Nkandla, KwaZulu-Natal

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1. Executive summary

In October 1999, Oxfam GB started a sustainable livelihoods programme at Nkandla, a deep rural area in northern KwaZulu-Natal province. Oxfam GB chose to focus on Nkandla for several reasons:

- Nkandla has high levels of poverty
- Nkandla's key livelihood sources are pensions and remittances, and these are under significant threat. At present, about a third of household food comes from agriculture. In this context, people were expressing an interest in expanding agriculture as an additional livelihood source
- Nkandla has potential for agriculture which is rare for such former homeland areas:
 - The climate, soils and terrain mean that land has high potential
 - There was unused land, and chiefs were prepared to release it for productive use.

So, Oxfam GB was looking to by-pass some of the problems of resettlement within land reform of:

- identifying and obtaining appropriate land for resettlement;
- resettled beneficiaries having to re-establish themselves.

With these constraints out of the way, Oxfam GB was seeking to consider how poor people with access to land of high agricultural potential could improve their livelihoods through agriculture. In summary, our findings are:

- People consistently express a desire to have work as their main source of livelihood.
- Having accepted that the likelihood of finding a job is low, many people do look to agriculture as a source of income.
- Communities are not homogeneous members consistently recognize five different categories of people based upon livelihoods. The participation in agriculture varies across the categories, and by gender and age.
- Agriculture does contribute a small, but significant, share of many people's income. However, few people derive a very significant income from agricultural activities. Overall, the reason for this seems to be that the financial return is not worth the effort when set against the risks.

Nkandla appears to have a high prevalence of HIV/AIDS. This is certainly as high as the KwaZulu-Natal provincial average that over a third of adults is HIV positive. Oxfam GB then reviewed the likely impact of HIV/AIDS on agriculture as a livelihood source. It is clear that it could have disastrous consequences:

AIDS most directly impacts physical health and labour availability. This
exacerbates seasonal labour shortages in agriculturally related work, which
demands critically important labour at specific periods, such as planting or
weeding.

- AIDS has a clear negative impact on the overall knowledge and skills base.
- As people become sick and die, they and their families begin to draw down savings, and to sell off stores, stock, and productive assets such as cattle or equipment. Women and their children are particularly affected, especially in traditional areas, as inheritance practices may allow family members to strip a widow of all assets she had controlled with her dead husband.
- Poor people usually undertake a range of livelihood activities, with members of a single household often mixing some informal trading, some agriculture, seasonal piece-work, perhaps a formal job, semi-skilled labour, and other activities. As human capabilities (especially labour and skills) diminish, and their asset base deteriorates, the options for undertaking various activities decrease. At the same time, productivity declines in those activities still undertaken.

On the basis of this, rather dismal, analysis, Oxfam GB has been exploring the possibility of introducing new crops that offer better prospects. Trials carried out in 1999/2000 and 2000/2001 in conjunction with CSIR indicate that amongst the promising prospects are plants bearing essential oils. In response to the situation at Nkandla, these appear to offer the following:

- A very much higher cash return per hectare, and for labour. So, families tending a small, quarter hectare plot may get an annual return of R 2000 or more.
- A relatively secure export market which may pay a premium for producers' identity as historically disadvantaged people.
- As many of the plants are perennial, some with a useful lifespan of 10-15 years, there isn't a need for annual planting with the associated pressures.
- As well as not having a critical planting time every year, other aspects of seasonality are less critical than with an annual crop, so reducing the pressures on people living with HIV/AIDS.

However, when Oxfam GB has reviewed business plans for a second phase of pilots, with extended areas, it is evident that the costs of management and distillation may outweigh the profits from simple production. This implies that even such crops, with such high returns, will only make a significant contribution to rural livelihoods if large areas of grown so that there are economies of scale. This raises questions of management of such a scheme, and management and ownership of distillation and marketing. Probably the best option is to look to a commercial farmer who would grow on a core estate within their control, and is looking for additional material to process through a distillery to enhance their profitability. This would involve a contract farming relationship between a core estate and outgrowers with advantages to all parties providing the relationship is fair. The challenge then is to find commercial farmers in areas adjoining tribal areas who are prepared to take risks and enter into such a partnership to bring mutual benefits.

The policy conclusion from this work is that farming is unlikely to make a significant contribution to poverty alleviation unless new cash crops are introduced which give a better return. However, even if these are accepted, and markets hold out, the management

involved in providing support, managing cropping and distillation, and dealing with the market is significant. The best option is to look for "win-win" arrangements between commercial farmers with processing facilities and people living in neighbouring tribal areas who both need production within tribal areas to enhance their livelihoods.

2. Background

In July 1999, Oxfam GB started a sustainable livelihoods programme at Nkandla, a deep rural area in northern KwaZulu-Natal province. Oxfam GB chose to focus on Nkandla due to an unusual combination of factors:

2.1 Nkandla has high levels of poverty

The Nkandla area is a rural area in northern KwaZulu-Natal. Formerly part of the KwaZulu homeland, it is characterised by the demographics typical of an area with its history: high levels of poverty and dependency, a skewed gender profile, low levels of education, and a lack of infrastructure and resources. In addition, HIV/AIDS and political violence have impacted significantly on the area.

According to the 1996 population census, some 135 000 people live in the Nkandla district. Of these, 57% are female, and 61% of households are headed by women, probably as a result of migrancy of males to urban areas. Over 14% of the population is under the age of 5, and 46% of the population is aged 14 years or younger. Nearly 6% of the population are 65 years or older; but 26% of all households are headed by someone in this age group. 404 households (2%) are headed by youth under the age of 20 (123 of these by youth under the age of 15).

A total of 67% of the adult population (15 years or older) are functionally illiterate (i.e. have less than 7 years of schooling), whilst nearly 40% of the adult population have no schooling at all. Less than 1% of the adult population has some form of tertiary education.

The economically active population (15-65 years) constitutes 47% of the population. Of this group, only 6% are employed. 20% of the economically active population are actively looking for work. 23% of the population classified as "employed" work in elementary occupations. Given this situation, it is not surprising that income is extremely low - 74% of all households earn less than R1 000 a month, with 21.5% of all households deriving no income at all.

The vast majority of households (91%) live in traditional dwellings of wattle and mud. There is an appalling lack of basic services in the area. Only slightly over 1% of all households has access to electricity. 79% are reliant on candles for lighting, whilst 18% use paraffin. Less than 4% of the total population have access to piped water; 8% receive their water from a borehole, well or rainwater tank, whilst over 82% are reliant on a river, stream or spring. Similarly, less than 3% of households have access to a flush or chemical toilet, with the vast majority of the population using either a pit latrine (50%), or no

formal latrine at all (46%). 51% of all households have no access to a telephone at all, whilst less than ½% have access to a telephone in their homes (including cellular phones).

In addition to poverty, low levels of education, and few resources, Nkandla has also inherited a number of development constraints, including a culture of dependency and apathy; gender discrimination; and marked social schisms.

In terms of administration, Nkandla is made up of a number of tribal authority areas. This means that in many areas of life, people are subject to the authority of the local iNkosi, including in accessing land.

2.2 Nkandla's key livelihood sources are under significant threat.

Some 75% of income is from pensions (50%) and remittances (25%). After increasing significantly in the early 1990s with moves to bring racial equity, the real value of pensions is now declining. This seems likely to continue as the government conforms to global trends to reduce welfare payments.

Meanwhile, over the past decade, remittance income has become less dependable and less in absolute terms. This seems likely to continue as any growth in the economy is likely to involve the substitution of low skilled jobs with fewer, more highly skilled jobs less suited to migrants from Nkandla. Furthermore, HIV/AIDs will also disproportionally affect people in the economically active age group.

In this context, people were expressing an interest in agriculture as an additional livelihood source.

2.3 Nkandla has potential for agriculture

Unusually for a former homeland area, significant parts of Nkandla have potential for agriculture:

- The climate, soils and terrain mean that land has high potential
- There is unused land, and chiefs were prepared to release it for productive use.

This gave Oxfam GB the opportunity to by-pass some of the problems of resettlement within land reform of:

- identifying and obtaining appropriate land for resettlement;
- resettled beneficiaries having to re-establish themselves.

and consider how poor people with access to land of high agricultural potential could improve their livelihoods through agriculture.

3. Oxfam GB's findings—a role for agriculture?

With funding from DFID, Oxfam GB started to work with focus communities in October 1999. In the first year, the focus was to understand the livelihood basis of members of the focus communities, and to respond to constraints to agriculture.

In summary, our findings were:

- People consistently express a desire to have work as their main source of livelihood.
- Having accepted that the likelihood of finding a job is low, many people do look to agriculture as a source of income.
- Communities are not homogeneous members consistently recognize five different categories of people based upon livelihoods. The participation in agriculture varies across the categories, and by gender and age. So,
 - Only members of the wealthier categories are able to engage in "field agriculture".
 - Members of the middle categories, particularly women, engage in small-scale vegetable gardening all year around
 - For members of the poorest categories, agricultural labour for neighbours with payment in kind or cash is a key income source.
 - Broadly, young men do not want to participate in agriculture they consider that they are educated, and will only take a job.
- Agriculture does contribute a small, but significant, share of many people's income. However, few people derive a very significant income from agricultural activities. Many reasons are cited for this:
 - Difficulties in obtaining labour, especially at critical times. As many people are seeking work, this must reflect a reluctance to carry out agricultural work for the remuneration offered.
 - Problems with inputs: people have difficulty in locating inputs at all, consider them too expensive, or don't have the cash at the right time to purchase them.
 - Problems with ploughing: people rely on mechanical traction, but:
 - there are few tractors in good repair;
 - the owners prioritise usage at key times meaning that many people have their fields ploughed too late;
 - ploughing charges are considered too high, this is partly because plots are small and scattered, and so tractors are used inefficiently.
 - Uncontrolled grazing of livestock, particularly of cows and goats is seen as a major threat. People often list fencing as a priority.
 - There are major problems with marketing:
 - local markets become saturated

- local producers are unable to compete with larger scale commercial farmers
- producers don't produce in the quantity, and with the quality and timeliness required by commercial buyers.
- Risks from disease and unpredictable weather, especially shortened rainy seasons.
- Communities have low "social capital"
 - Social organisations are weak
 - There is fear of theft of crops particularly in areas that were included in "betterment schemes" where fields are distant from houses.

Oxfam GB considered responding to particular issues, but it soon became clear that for most people the financial return from growing the traditional crops – maize, beans and potatoes - was not worth the effort when set against the risks. An example of this was the business plan which a consultant submitted for a "maize booster project". Even when he made the assumption that labour would be "free", the returns from the sale of maize only paid off the cost of inputs when yields doubled from the typical 1.5-2.0 tonnes/ha to over 4 tonnes/ha. Payment of a reasonable return for labour made the break even yield even higher. It was clear that as things stood, agriculture wasn't going to offer much prospect of improved livelihoods to most people. Such an analysis is confirmed by observation in many tribal areas of KwaZulu-Natal and the former Transkei – large areas of land which were obviously selected for betterment stand with small patches cultivated, and the rest left idle. This analysis didn't consider the impact of HIV/AIDS which was clearly becoming more apparent as the project developed.

4. Impact of HIV/AIDS

Nkandla appears to have a high prevalence of HIV/AIDS. Nkandla Hospital is a sentinel site for the National HIV/AIDS prevalence survey. In October 1999, 50% of the cluster sampled were HIV positive. Whilst this exceptionally high prevalence shouldn't be extrapolated to the general population, it is clear that the prevalence is certainly as high as the KwaZulu-Natal provincial average that over a third of adults is HIV positive. A review of the likely impact of HIV/AIDS on agriculture showed that it could have disastrous consequences:

- AIDS most directly impacts physical health and **labour availability**. Infected individuals tend to fall sick repeatedly over years. Also, as illness progresses, family members tend to divert significant amounts of time into caring for their sick relatives. Traditional mourning practices preclude agricultural work. This exacerbates seasonal labour shortages in agriculturally related work, which demands that critically important labour to be available at specific periods, such as planting or weeding.
- AIDS has a clear negative impact on the overall **knowledge and skills base**. Affected people are largely aged between 15 50 years. They fall within the most productive age group, and include many of those with important experience and

specialist skills in all facets of life. Illness and death of such people has two clear impacts: in the short to medium term, the skills base is directly reduced; in the longer term, transmission of skills to others (especially the youth) is threatened, as those with skills die before passing on skills. This involves both informal learning (rural women who cannot pass on to family members their special skills and long experience in agriculture) and formal learning (university lecturers, teacher trainers, agricultural extension agents who die before passing on information to large numbers of people).

- As people become sick, they and their families begin to **draw down savings**, and to **sell off stores**, **stock**, **and productive assets** such as cattle or equipment. The money goes for medical care, funerals, and hiring of labour to cover the labour shortages resulting from sickness and diverted time.
- Once productive assets are sold off (often at artificially low prices, since the buyers may know that the seller is desperate), the family slips into an increasingly more vulnerable situation.
- Women are particularly affected, especially in traditional areas, as inheritance practices may allow family members to strip a widow of all assets she had controlled with her dead husband.
- The **quality of productive assets** may also decline. For example, as labour shortages grow intense, people may stop important agricultural practices such as mulching, which maintain soil erosion in the long term, but require intensive labour in the short term.
- Poor people usually undertake a range of livelihood activities, with members of a single household often mixing some informal trading, some agriculture, seasonal piece-work, perhaps a formal job, artisanal labour, and other activities. As human capabilities (especially labour and skills) diminish, and their asset base deteriorates, the **options for undertaking various activities decrease**. At the same time, **productivity declines** in those activities still undertaken.

5. What options for livelihoods?

On the basis of this, rather dismal, analysis, Oxfam GB has been exploring the possibility of introducing new crops that offer better prospects. Trials carried out in 1999/2000 and 2000/2001 in conjunction with CSIR indicate that amongst the promising prospects are plants bearing essential oils. In response to the situation at Nkandla, these appear to offer the following:

- A very much higher cash return per hectare, and for labour. So, families tending a small, quarter hectare, plot may get an annual return of R 2000 or more.
- A relatively secure export market. In some ways, people in Nkandla have a
 comparative advantage only in the sense that they were victims of apartheid, and
 remain poor. Some outlets in the North, may even pay a premium because of the
 interest in ethical trading.

- As many of the plants are perennial, some with a useful lifespan of 10-15 years, there isn't a need for annual planting with the associated pressures of having land prepared for a critical time.
- As well as not having a critical planting time every year, other aspects of seasonality are less critical than with an annual crop. This may reduce the pressures on people living with HIV/AIDS as it may not be critical if they are unable to perform a task at a certain time because of sickness, or care for a sick person, or mourning.

When Oxfam GB made an initial review of business plans for a second phase of pilots, with extended areas, the financial returns looked promising if there was grant funding for fixed improvements such as fencing. Furthermore, women who were consulted expressed an interest in a scheme whereby they would be guaranteed a monthly maintenance payment, and a profit share at the end of season. (They were essentially being guaranteed as part-time job with a possible bonus at the end of season.) However, further consideration of the costs of management and distillation suggests that these may outweigh the profits from simple production. This implies that even such crops, with such high returns, will only make a significant contribution to rural livelihoods if large areas are grown so that there are economies of scale. This raises questions of the management of such a scheme, and management and ownership of distillation and marketing. Fundamentally, there needs to be an arrangement so that the proceeds from processing are shared with producers.

Probably the best option to ensure an income for poor people living in tribal areas is to look to a commercial farmer who would grow on a core estate within his control, and buy additional plant material to process through a distillery to enhance its profitability. This would involve a contract farming relationship between a core estate and outgrowers with advantages to all parties providing the relationship is fair:

The farmer would provide:

- Inputs including planting material, fertilizer and ploughing
- Technical advice
- A "maintenance payment"
- Processing facilities
- An assured market
- A relationship with producers which avoids social conflict

The out-grower would:

- Provide free land
- Provide access to labour
- Provide an assurance of increased volume for processing
- Take weather and other production risks

• Offer possibilities of improved relations between the farmer and his neighbours, and so reduced threats of encroachment.

The challenge then is to find ways of encouraging commercial farmers in areas adjoining tribal areas to consider such mutually beneficial partnerships. Undoubtedly there will be concerns about the associated risks. The policy issues are how to provide ways to reduce these risks, or incentives to make them more favourable.

6. Conclusions

The key policy conclusion from this work is that an expansion of farming based on traditional crops - maize, beans and potatoes - is unlikely to make a significant contribution to poverty alleviation. This is because the financial return is not worth the effort when set against the risks. This situation will worsen as the impact of HIV/AIDS develops with time.

There are options for alternative crops that give a better return, have a possible comparative advantage, and are sensitive to the situation of communities living with HIV/AIDS. However, even if these are accepted, and markets hold out, the management involved in providing support, managing cropping and processing, and dealing with the market is significant. The best option may be to encourage "win-win" arrangements between commercial farmers with processing facilities and people living in neighbouring tribal areas who both need production within tribal areas to enhance their livelihoods.