

**Proceedings of the Workshop on
Social Aspects of Dynamic Poverty Traps in Vihiga District
Held at Uncle Sam Hotel, Vihiga
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**Compiled by
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SADPT Document 1

Table of contents

Table of contents.....	1
Opening Remarks.....	2
Session One: Sharing results of the first phase of poverty traps study.....	2
Rural markets, Natural Resources and Poverty Traps in East Africa.....	2
Session Two: Introducing Social Aspects of Dynamics Poverty traps and sharing results from group discussions.....	4
Outputs from Working Groups.....	4
Group 1.....	4
Group 2.....	5
Group 3.....	6
Group 4.....	7
Group 5.....	10
Group 6.....	11
Closing Remarks.....	13
Appendix 1.....	14
Appendix 2.....	26
Appendix 3.....	27

Opening Remarks

By Mr. Mark Otieno- Acting Divisional Extension Coordinator

The challenge facing Vihiga district and Kenya in general is how to reduce poverty and sustain economic development. Vihiga is a district with several intervening agencies yet it is one of the poorest districts in Western Kenya. The main causes of poverty in the district are increased population, reduced land sizes, continuous cultivation of land without soil fertility amendment practices and low levels of off farm income. In order to reverse these trends, there is a need for co-operation between farmers and other stakeholders. Farmers should stop expecting free handouts from researchers and other development agencies that come in their region to help them. What farmers should demand for in Vihiga district are knowledge and information that they can empower them to make informed choices based on their economic status. This way, the vicious circle of poverty that they are caught in will be broken. To achieve this, farmers need to open up, be honest and truthful to give the right information about themselves without expecting any handouts. If farmers tell the truth, solutions to their problems can be generated through research. A workshop like this acts as a platform for learning and exchanging of views between extension workers farmers and researchers.

Session One: Sharing results of the first phase of poverty traps study

By Paswel P. Marenya

Rural markets, Natural Resources and Poverty Traps in East Africa

Poverty Traps in Vihiga District

Poverty traps in Vihiga district come from:

- Very low income
- Low level of education
- Small pieces of land

The status of farm households' income

- Generally most farm households in Vihiga district are poor
- According to the World Bank, if one earns below Kshs 70 – 75 (1dollar) per day, she/or he is considered to be poor. This is the poverty line
- In Kenya, poverty line is Kshs 1239 (17 dollars) per month.

- In Vihiga District, farmers reported that in the year 1989 the average income was US dollar 0.84 (Kshs 60) per month while in the year 2002, this had gone down to 0.79 dollar (KShs 58)

How changes in income has taken place

Between 1989 and 2002 farmers income Vihiga has changed as follows:

- 55% were poor (the poor)
- 19% were poor (not poor)
- 15% were not poor (the poor)
- 10% were not poor (not poor)

Status of the farms/land in Vihiga

- On average, in 1989, farm sizes were about 1.25 acres (0.5 hectare)
- In 2002, this dropped down to only one acre (0.4 ha.)
- Right now, 46% have farms, 0.5 acres or less.
- 76% have farms, one acre or less.

Maize Yield in Vihiga

- Maize and beans are grown on 73% of the farms
- 88% of maize and beans' plots are one acre or less
- Average maize yield is 403kg per acre
- This is too low compared to the possible 1300kg
- This yield is very low given that each family has an average of five people

Policy Suggestions for Fighting Poverty

- Improving the yields and income through farming (though the farms are small)
- Stabilising dairy farming, tea and vegetable growing
- Improve youth education and open opportunities for technical training/employment
- Open opportunities for non-agricultural employment

Conclusion

- Fighting poverty through agriculture alone is impossible
- Other sources of income must be sought
- Child education must be considered to enable them be employed elsewhere.

NB/ See appendix 1 for complete paper by Paswel on which this presentation is based

Session Two: Introducing Social Aspects of Dynamics Poverty traps and sharing results from group discussions

By Paswel P. Marennya, Wesley Ongadi and Nelson Mango

Farmers were informed that the Poverty traps study was still ongoing and that some of them will be selected for in-depth interviews. They were then introduced to the Social Aspects of Dynamics Poverty traps. The introduction was done in English, Swahili and Luhya. Farmers were then divided into six working groups and given certain tasks to perform.

Outputs from Working Groups

Group 1

Task 1: What defines poverty in this community?

Poverty in this community can be defined as a situation whereby one does not have money, any source of income, wealth (land, vehicles, etc.), or inability to educate ones children. When one is mentally disturbed she/he is regarded to be poor because nobody in this state can properly take care of land or business. Such a person is therefore rendered jobless. Laziness is also a sign of poverty.

Task 2: What are the best indicators of a poor person?

- One who puts on poor clothing and has poor health status due to malnutrition
- A person who is unable to purchase drugs or access hospital treatment when sick
- A person in whose family there are sick members due to frequent malaria attack, HIV/AIDS related ailments and other diseases
- One who is physically handicapped and cannot work on the farm
- One whose children are dropping out of school at an early stage due to lack of school fees
- One whose children offer child labour as maids and herds boys to other people instead of going to school
- Living in a poor and dirty environment i.e. sharing houses with livestock
- Having one meal of poor quality in a day

Task 3: Where does poverty line lie in this community?

- If one has got heavy debts that he or she cannot pay
- Living in mud-walled, grass-thatched house
- Putting on poor clothing
- Taking less than three meals in a day
- Practicing poor farming methods
- Having so many children that are not cared for
- Not taking your children to school
- Inability to purchase drugs when sick

Group 2

Task 1: Do you think a greater, smaller or the same share of people in this community live in poverty today compared to ten years ago, why? Twenty years ago, why?

Poor people have increased compared to twenty years ago because of reduction in land sizes due to subdivision and population growth. Quality of clothing has become poorer. The level of education has gone down because of more early school dropout cases in the recent years, a situation caused by the inability of parents to support their children's education financially.

Task 2: Are poor people treated better, worse or the same by others in the community, relative to how they were treated ten years ago?)

In this community, many people are poor and have no one to depend on. On the other hand, the rich have no mercy for the poor; the rich do not want to interact with the poor. The poor are employed on casual basis by the rich and are paid poorly. The rich pay the poor KShs 40-50 a day (less than US\$ 1) and they work for long hours (from 8am-5pm). The kind of work done is also labour intensive yet the pay is quite low.

Task 3: Do you think a greater, smaller or the same share of people in this community is wealthy today compared to ten years ago? Why? Twenty years ago? Why?)

Rich people are fewer and the poor are more. The land sizes have reduced, food prices are higher and more people are unemployed. The few who are rich are in formal employment or established businesses like wholesales and hardware shops. In the 1970's-1980's land was still big and fertile so it was producing enough food and surplus that could be sold to educate children.

Group 3

Task 1: In the past how did people escape poverty, or did they escape it all?

People escaped poverty mainly through farming. The land was big and productive. Everybody including the youth still had a positive attitude towards farming as people used to realise bumper harvests. Surpluses were being sold to educate children, buy clothes, and build houses and to stock livestock. Those with many daughters accumulated wealth through bride price. This way, they escaped poverty. Other ways people escaped poverty were through formal employment in the public and private sectors and through businesses such as livestock trade, shop keeping etc.

Those who used the above strategies to escape poverty and invested wisely indeed did escape poverty. However they are not many. The few who actually escaped poverty invested on their children's education. Their children are now employed and are supporting them through remittances, which they send back home every month. Some invested on fixed assets such as rental houses, big farms in schemes like Kitale, flour mills etc. However majority of farmers invested their wealth on adding women and reckless drinking of alcohol. This group of people have fallen back to poverty, which they had escaped. They have several children that are demanding for education and parcels of land for themselves. With many mouths to feed and several stresses to bear, they cannot rise again. Generally many people in the community are still stuck in poverty especially those who depended on farming only.

Task 2: Are these strategies for escaping poverty still accessible to the poor here today?

If not, why?

The only way of escaping poverty that was there ten years ago and is still available today is through formal employment in the public and private sector. If your son/daughter is lucky to get formal employment, there is a possibility that she/he might help you escape out of poverty. However many young men are unemployed; they have completed secondary education or college but have no jobs. They roam in the village. Some have become alcoholics out of frustrations and increased dependency on their parents. With reducing land sizes, changing weather patterns (increasing periods of drought), increased cost of farm inputs, and lack of proper market for farm produce; it is very difficult to escape poverty nowadays. Farming can only help one to escape poverty if s/he has other source(s) of income e.g. formal employment or is engaged in other businesses to enable him/her buy fertilisers and crossbred dairy cattle. High yielding dairy cattle produce a lot of milk both for family

consumption and for sale. Poor people cannot afford crossbred dairy cattle because they are expensive to maintain and the cost of acquiring them is very high.

Task 3: Have new strategies become available in the past ten years for the poor to escape poverty?

There are no new strategies available. Instead people are venturing more into crossbred dairy cattle keeping, growing of tea small scale, keeping poultry, petty business such as hawking, selling second hand clothes, selling grains, carpentry, bicycle repair and *boda boda* (bicycle transport). However to escape poverty with these is still very difficult.

Task 4: Are there different strategies for parents and children to escape poverty?

The only difference is that children depend more on formal employment, while parents could escape poverty mainly through farming, planting of maize and beans.

Task 5: Do you see educating your children as a way out of poverty for yourself and your children?

Yes, only if children are able to get formal employment and if they are organised. At the moment, unemployment level in the region is very high. There are members of the community who have escaped poverty after educating their children to university and have secured good jobs.

Task 6: When you choose strategies for escaping poverty whose example do you try to emulate?

In most cases farmers try to copy hardworking people who have become successful in their careers and have escaped poverty in the area. They seek advice and help from them when they are in need. Such individuals have got a good house, own a vehicle, always sympathetic and assist others who land in problems.

Group 4

Task 1: When people become poor today does it take them less time or more time or about the same to pull themselves out of poverty? Why?

It takes them longer time to move out of poverty. This is because household incomes are nowadays very low or almost not available. Due to this people cannot afford to buy seeds, fertilisers, crossbred dairy cattle etc. In this community farmers used to rely also on the sale

of coffee. But the market for coffee in the area collapsed. Some farmers have resorted to uprooting coffee trees, as they do not benefit from it any more. The co-operative society offers as low as KShs 3.00 per Kilogram.

Task 2: What are the primary risks that threaten to cast people who are not poor presently into poverty?

Primary risks that threaten to cast non-poor people presently into poverty include:

- Continuous use of land and planting of the same type of crop throughout the year
- Reduction in soil fertility especially due to soil erosion as one fails to construct soil conservation structures such as terraces, etc.
- Prevalence of diseases such as malaria, and HIV/AIDS related ailments in the area, leading to diversion of resources towards treatment and funeral expenses of major income earners in the family
- Unemployment and lack of money to educate children and buy fertiliser, seeds, etc.

Task 3: Have these risks changed over the past ten or twenty years?

The risks have not changed much. Soils have become so infertile in that you have to buy fertilisers always. Level of unemployment is so high and *Striga spp* (witch weed) has increased in the farms.

Task 4: What mechanisms exist for avoiding these risks before one suffers a shock? Have these changed in availability or effectiveness over the past ten or twenty years?

Planting crops which are early maturing, drought resistant and do not require soils of high fertility. Crops such as sorghum, cassava, sweet potatoes, groundnuts and *mbarara* nuts are drought resistant and do not require a fertile soil. Local varieties of maize and beans are capable of evading drought as they are early maturing. They can also give some little yield in an infertile soil unlike hybrid maize. Another method farmers use to avoid these risks is through diversification of agricultural enterprises.

However these mechanisms have not changed in availability or effectiveness over the past ten or twenty years. Instead they have declined. Drought resistant crops such as cassava that do not need high fertile soils have been wiped by cassava mosaic disease in the past five years.

Land sizes have reduced thus limiting diversification of farm enterprises. The eating habit of children has also changed. They do not like *Ugali* made out of sorghum.

The only new mechanism that people have resorted to is the growing of tea, which gives monthly income and bonus.

Task 5: Who has access to these risk avoidance mechanisms?

Hardworking people who have good planning on how to farm utilise these risks avoidance mechanisms.

Task 6: What methods exist to cope with shocks after they occur?

- Working for rich people for a days pay until conditions come back to normal
- Relying on kinship networks for help during hunger and times of difficulties. Luhya tradition dictates that a person in need can seek help from kinsmen
- Engaging in self-help groups especially merry-go-round where you can borrow money and repay back with interest
- Participate in welfare activities of the clan. During a calamity like funerals, you get support from clan members
- Many people in Vihiga nowadays plant new crops such as fodder crops e.g. Napier grass that can be sold to people with dairy cows. At the same time Napier grass stabilises the embankments of terraces constructed in the farm to stop soil erosion

Task 7: Have these risks avoidance mechanisms changed in effectiveness over the past ten or twenty years?

No. Instead they have declined due to changing culture and the emergence of individualism. The society is no longer coercive than before. Even welfare groups that do exist are very weak and are marred with conflicts.

Task 8: Who has access to these risks avoidance mechanisms?

People who are educated and are in formal employment or businessmen who have managed to be successful are the ones who have access to these risks avoidance mechanisms. They are the ones who can farm comfortably as they can afford farm inputs.

Group 5

Task 1: How has land use patterns changed over the past ten years?

There has been a great change in land use in the past ten years. People have moved from growing maize and beans only in large scale to growing maize, beans, kale, cowpeas, sweet potatoes and Napier grass on the same piece of land. The acreage for maize and beans has reduced tremendously because of reduced land sizes. Land subdivision among heirs and mushrooming new homesteads are responsible for reduced land sizes. Grazing lands have almost disappeared.

Task 2: What effect has this had on agricultural production and crop choice and cultivation practises? What effect has this had on livestock production?

Over cultivation of these small parcels of land without soil fertility amendment practices has led to decline in soil fertility. This in turn has lowered the yield that is got from these small pieces of land. Many crop varieties being planted in the same piece of land without fallow periods also take up a lot of nutrients from the soil. As a result farmers are forced to choose crops that do not require a very fertile soil such as sweet potatoes and cassava despite the presence of cassava mosaic disease. Farmers also choose early maturing crops such as local varieties of maize and beans though low yielding. Growing of fodder crops such as Napier grass is on the increase as grazing land is almost gone.

Livestock keeping has also changed due to disappearing grazing land. People no longer keep large herds of African zebu cattle as it used to be before. Instead people are resorting to keeping one or two cattle only. Farmers with money and can afford to buy a high yielding dairy cow, are resorting to zero-grazing method of keeping cattle. Dairy cows kept in a zero grazing unit when well fed, give a lot of milk and manure which can be used in reproducing the soils also accumulate in the unit.

Task 3: What are the most popular natural resource management practises today? Why?

The most popular natural resource management practises today in Vihiga district are:

- Digging of terraces (fanya juu) to reduce soil erosion
- Planting of trees where they have been cut

These are the most popular natural resource management practises today because of serious soil erosion in the farmers' small parcels of land. As population increase, forests get cleared

to pave way for arable land. In the process the benefits of having forests are lost forcing farmers to establish their own woodlots.

Task 4: Are there past practises that were effective but are no longer feasible now?

Explain.

In the past, people used to live a parcel of land to lie fallow for even up to 7 years. During this period, a forest would develop on the land. As leaves of trees fall and rot, they enrich the soil with humus, which increases its fertility. Today this is not feasible as a result of increased population and reduced land sizes.

Digging of terraces is also no longer feasible in poor people's land. Poor people are preoccupied with digging terraces on the farms of rich people instead. This they do in order to secure a days meal. They do not have time to implement these structures in their own farms. Others complain that terraces take a big portion of their land, which are already small in size.

Group 6

Task 1: What sort of informal self help, marketing, credit, natural resource management or such other groups exist in the community?

Informal groups that exist in Vihiga community include:

- Merry-go-rounds
- Clan groups formed to address welfare issues, especially to give support during time of funeral
- Other groups among women exist that give loans for emergency, payable at an interest of 10 shillings for every hundred shillings taken.

Task 2: How do these groups originate?

- These groups originate due to a need to address common problems
- Clan groups originated when clan members realised that they could not cope with certain problems as an individual e.g. meeting funeral expenses when one of their own is dead
- Merry-go-rounds formed mainly by women originate out of the realisation that women carry a heavy burden of household reproduction including caring for their husbands and children. In Vihiga, women complain that most husbands are not really caring for the family. In order to meet their household demands, they thought its is

wise to be contributing money to each member in a revolving manner so as to address pressing problems at a time of need e.g. buying utensils, paying school fees etc.

- Other groups that are found among women emerge as a result of political influence or some intervening agencies (mainly NGOs) that come to start some activities with them

Task 3: Who can participate in the group(s), and who cannot and why?

Women are the ones who participate in the merry-go-round groups. This is because they are the ones that in most cases are faced with the task of caring for their families.

The youth don't actively participate in these groups because they don't have money or income source to pay registration fees and contributions during meetings. There is also a general assumption that groups are meant for old women. The youth are supposed to go look for jobs in town and start families. Their wives are the ones to join the women groups.

Task 4: What sort of formal self help, marketing, credit, natural resource management or other such groups exist in the community?

- Teachers' Benevolent fund groups
- Registered *boda boda* (bicycle transport) youth groups
- Registered clan groups
- Registered women groups

Task 5: How the groups originate

Most of the groups originate out community own initiatives to address common problems that affect them. During electioneering periods, politicians help women in forming some groups, which they register at the Department of Social services. A few of these groups still exist while majority of them collapsed after the elections. Action Aid - Kenya also facilitated the formation and registration of some women groups they were working with in 1998.

Task 6: Who can participate in these groups, who cannot and why?

Only the youth participate in *boda boda* (bicycle transport) group. They are the ones who are still energetic enough to transport people and heavy luggage using a bicycle. In most cases old men do not participate in groups other than clan groups. Women participate almost in all groups other than *boda boda* youth groups. Only teachers participate in Teachers' Benevolent Funds Group.

Task 7: Which groups have been effective, which ones have not? Why?

The Teachers' Benevolent Fund groups and *boda boda* youth groups have been effective because they follow laid down rules and constitution. Women groups are effective because of hard work, trust, humble leadership and impartiality. There is no men group in Madzoo because of quarrelling among members, drunkenness and poor leadership.

Closing Remarks**By Mark O. Otieno**

Mark closed the meeting by advising the farmers on a new technology of controlling *striga* weed in their farms. *Striga spp* (witch weed) is a parasitic weed that feeds directly from the roots of cereal crops such as maize and sorghum. Fields that are heavily infested by *striga* do not give much yield. The crops grow thrifty and do not attain their maximum height. *Striga* weed has been one of the contributing factors to poverty in the region. In the past farmers were uprooting the weed and throwing them by the way side. It was noted that this method of controlling *striga* is not effective and instead it propagates its growth in other farms. This happens when it rains and surface runoff washes its seeds to other farms down slope. In the new technology, known as "pull and push", Napier grass and desmodium are used to control *striga* weed. It has been established that some chemicals produced by cereal crops induce the growth of *striga*. Napier grass is capable of producing these chemicals but given the nature of its roots, which are tougher than those of maize or sorghum, *striga* cannot attach its roots on them and dies a natural death. Desmodium on the other hand is capable of producing chemicals that will inhibit the growth of *striga*. Thus when desmodium is planted in a field of maize, it suppresses the growth of *striga*.

Mark cautioned farmers to take note of the trend of poverty in their region. He reminded them of the outcome of the first presentation that indicated that poverty levels were increasing and daily income decreasing and if they were not careful, this trend will increase. Farmers were advised to demand for services from the development agents instead of waiting until they come down to for them.

Appendix 1

Rural Markets, Natural Capital and Dynamic Poverty Traps in East Africa

(A Collaborative Research Project between USAID-BASIS CRSP,

World Agro forestry Center and the University of Nairobi)

*HUMAN CAPITAL, EMPLOYMENT, NATURAL RESOURCES MANAGEMENT AND POVERTY
TRAPS IN LAND-SCARCE WESTERN KENYA.*

Paswel P Marennya and Willis Oluoch-Kosura

June 2003

*Issues Paper¹ Presented at the Community Feedback Workshop (End of Data
Collection Phase) at Uncle Sam Inn Emuhaya Vihiga, District Kenya on 13 June
2003.*

¹ I presented extracts of this paper covering emerging evidence relating to the theme of this research plus policy issues in Swahili at the Feedback workshop.

Introduction

The African continent has entered the twenty first century with a sobering burden of poverty, resource degradation and hunger. This is happening amidst unprecedented levels of prosperity in other parts of the world. While Europe, North America, East and Southeast Asia are accelerating through the information age and while pockets in other parts of the world seem to be catching up, Africa and especially sub-Saharan Africa is still grappling with basic and poignant issues revolving around food security, natural resource degradation, poverty, civil strife and HIV-AIDS.

Nearly five decades after the Colonial experience, many people of rural sub-Saharan Africa live no better and in many cases worse than the generation of 30 or 40 years ago. This implies that successive generations in the continent are stuck in a bad rut and a vicious cycle of deprivation. Therefore, while these problems may sound like clichés in academic and development circles, the reality is that there are no two ways of going about poverty on the continent. The trap of poverty in which millions of Africans find themselves must be broken and replaced by virtuous cycle that would see the continent join the rest of humanity on a march towards prosperity.

The current BASIS CRSP project in East Africa with its focus on *Rural Markets, Natural Capital and Dynamic poverty traps* represent one of those efforts that are needed in order to help craft conducive policy and institutional environment as part of wider efforts to dismantle these traps of poverty in which many on the continent now find themselves. The implementation of this project in four Kenyan sites and two in Madagascar, will help, it is envisaged, to answer vital questions that seem to be at the heart of persistent and dynamic poverty in East Africa as in other parts of sub-Sahara

Africa. Who escape poverty, which seem to be stuck and who relapses into poverty. Once *the forces behind these outcomes* are identified, it will then be possible for the project to put forward policy proposals that are meant to neutralize those forces that keep people stuck in poverty and accentuate those that help people escape from these traps.

In the Madzu site of Western Kenya representing the relatively wet agroecological conditions with poor soils and poor market access, preliminary observations we have made are pointing to what seem to be important areas that we should focus on in the next phases of the project.

Poverty Traps, Human Capital and Non-farm Incomes- Preliminary Evidence from Madzuu

A most noticeable phenomenon in the Madzu site concerning indications of poverty traps is that those who command above average physical assets are those who presently have formal wage employment or have retired from such. These applied twice as much fertilizer on their maize plots.

All those who apply Diammonium Phosphate fertilizer (DAP) for planting and later Calcium ammonium Nitrate had wage income. In one case the farmer was a retired primary school headmaster. He also operated 800 tea bushes. In all these cases the respondents had significant numbers of agro-forestry trees on their farms.

In 1989, of the 711 household members enumerated, 265 were in school, 1 was in University, 42 were in secondary school and 221 were in primary one was of school going age and was not in school.

In 2002 141 children were in school from the retraced households, 35 in secondary school and 199 were in primary of the household. Due to out migration and deaths 446 were enumerated. Marriages, death and household splitting account for the reduction in the sample population.

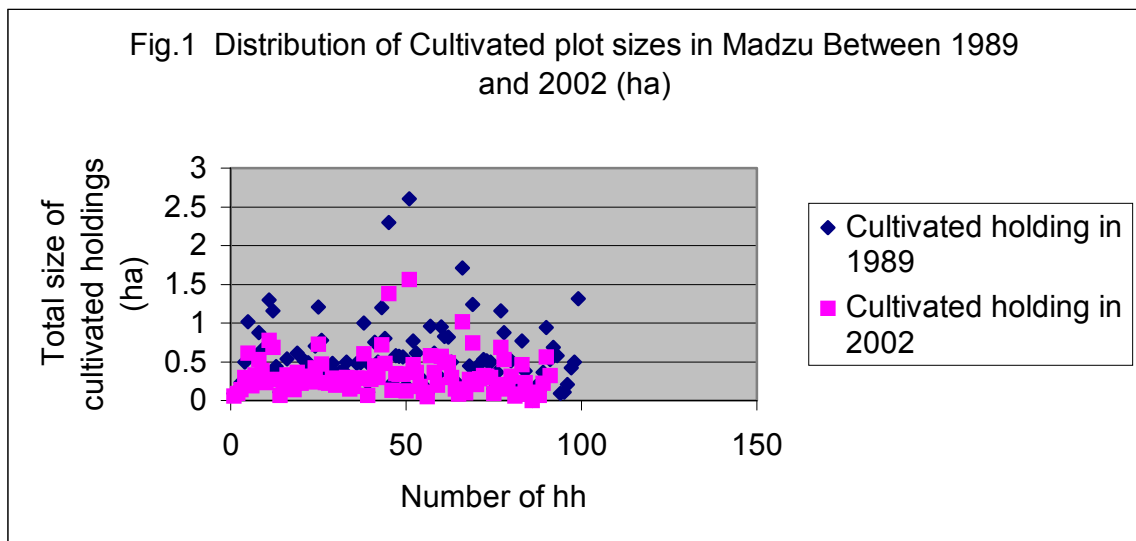
In 1989 18% of household members had reached secondary school level of education without taking account of dropouts. In 2002 16.5% of household members had reached secondary school level of education, again without considering dropouts. 20% of household members in 2002 did not complete secondary primary.

Table2 Changes in Wealth /Welfare indicators between 1989 and 2002

Welfare indicator	1989	2002
Household members completed secondary (%)	18	16.5
Total landholdings cultivated (ha)	0.5	0.3
Household members having skilled employment (%)	4	5
Primary school enrollment %	–	93
College graduates (% of all hh members)	1	5

The foregoing observations are buttressed by the fact that only 23% of all adult household members (beyond school going age) ranked farm income as their most important source of income. Paradoxically 64% of all household heads in the 2002

resurvey spend most their time on their farm. This suggests that while farming activities absorb the bulk of labor, these activities rank very low in their income contribution. This means household members spend the bulk of their labor in farm operations for food subsistence and engage in largely unskilled non-farm activities for cash income mainly to supplement subsistence requirements that cannot be met from own production. This observation is plausible considering the average landholding sizes available for cultivation in the area. The mean size of total landholdings in 1989 was 0.5ha compared to 0.4ha in 2002 representing a 20% reduction in total size of landholdings over the last 13 years (Table 2 and Fig 1). This presents the possibility that the diminution in landholdings is one of the factors holding many households in poverty. This raises the question whether there is a minimum size of plot that can be economically operated in growing maize, tea or operating a dairy enterprise for example. This means that at the current levels of land availability and with the inexorable population increase, farm production may offer, even under intensification, only a very modest opportunity as the basis for enabling households secure productive livelihood sources. This justifies the investigation of alternative economic activities, which can yield adequate productivity from the limited land available for cultivation. It also means that more and more people must necessarily be absorbed in the non-farm sector both at the local level and beyond.



With only a fifth of the population completing secondary (High school) the implication is that 80% of the population cannot be readily absorbed in well paying formal employment. In 1989 4% of all household members enumerated had formal skilled employment or self employment (e.g shopkeeping selling groceries). In 2002 the ratio has marginally increased to 5%.

The predominant non-farm activities revolve around non-agricultural labor, artisanship and petty trading. This means household members spend the bulk of their labor in farm operations for food subsistence and engage in largely unskilled non-farm activities for supplemental cash income.

Human Capital, Employment, Natural Resource Management and Poverty Traps

We have focused heavily on the levels of education and changes thereof in our discussion to begin to illustrate the importance of human capital in consigning households in- or helping them escape- poverty. A good education will enable individuals to access more lucrative labor markets in the formal wage sector. This enables them to secure considerable financial

stocks, which they can use to undertake further investments in natural and human capital. This is clear when one considers that in Kenya, those formally employed usually have high level of access to credit through credit facilities called SACCOs (Saving and Credit Co-operatives).

For instance the retired primary head teacher mentioned earlier operates 800 tea bushes, he has 8 sons and all of them are all formally employed one being a doctor, another being a government marketing officer, one is a teacher, another is a court clerk, one is an employee of fisheries department and one is a secondary schools auditor. It is not difficult to see why these individuals have escaped the cycle of poverty. The predominant factor here being their having had a good education, which their father was able to provide since he himself had decent income.

On natural resources management it is instructive to note that fertilizer use in this region is currently estimated at less than 15 kg of nitrogen per ha against a recommended level of 50kg of nitrogen per ha. Without significant investments at household level in soil fertility interventions (both organic and organic materials) no alternatives for improving smallholder farm productivity readily comes to mind. With such a weak natural capital base it is easy to predict that nearly all households currently poor will remain so.

Some Policy Issues to be studied

In view of the foregoing we envisage that the BASIS CRSSP team will illuminate the following policy questions.

- 1 Since small farm production is characterized by low factor productivity, what is the best route in revamping this sector in the region?

- 2 Are divestiture from maize and/or crop diversification desirable options so that households can meet their grain requirements from the grain markets. Do the grain markets exist? Can reliable grain markets be put in place? Is the predominance of maize justifiable, especially in view of the small plot sizes? Are there alternative cropping options that may offer higher returns?
- 3 Since investments in natural capital entails significant outlays of financial and labor resources. How can so many poor smallholders be enabled to achieve a critical mass of financial and human capital required to jumpstart the smallholder subsistence sector?
- 4 In view of the importance of good formal education in enabling individuals and households to achieve high levels of wage income through formal employment, what are the policies needed to increase educational attainments in rural agricultural communities. How will other sectors of the local and national economy expected to grow to absorb greater numbers of well-educated manpower?

The above provided an outline, of the kind of policy questions that will eventually lend themselves to analyses of data we have gathered under the BASIS CRSP research. We will still endeavor to share these with you as the research progresses and finally concluded.

Implications for Development Policy in Madzuu and Vihiga District at large

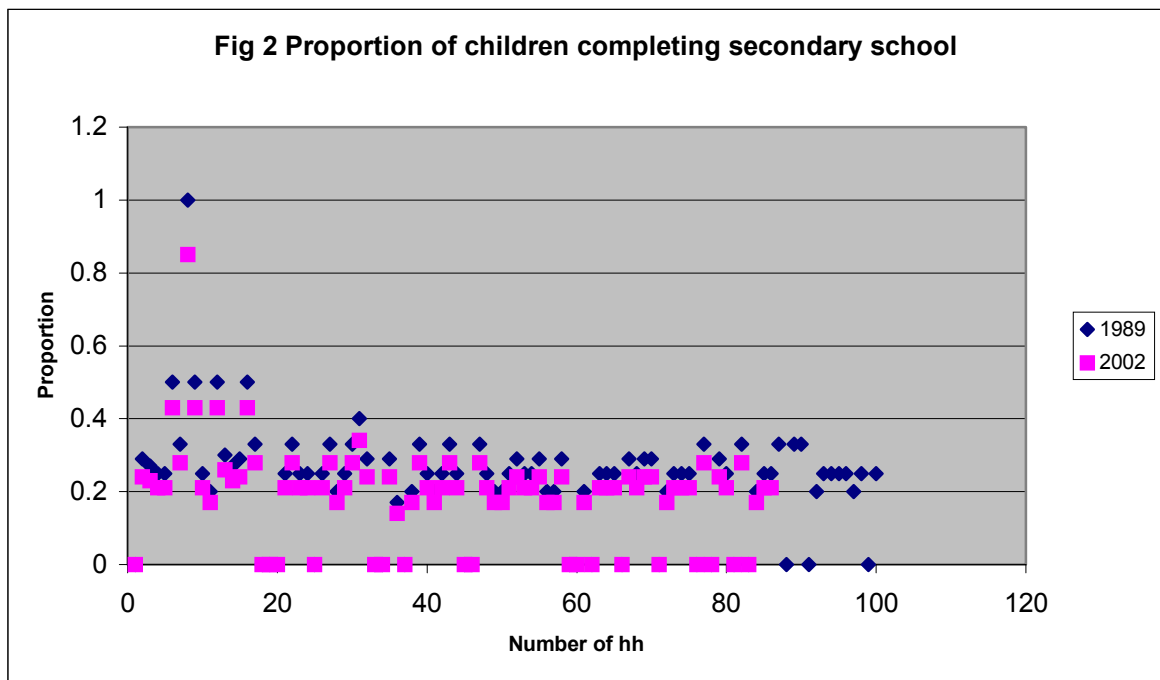
Smallholder farm development

Since the economy of Madzuu is still mainly based on smallholder agricultural production, it is obvious that the productivity of the natural resource base (mainly soils) must be raised beyond the current levels if the populations here and in other similar parts of East Africa are expected to generate for themselves adequate incomes to escape poverty. Adequate investments in mineral fertilizers, agro forestry enterprises, soil conservation structures, and other organic interventions are urgently needed. Such investments are still greatly lacking. For instance, fertilizer use in this region is currently estimated at less than 15 kg of nitrogen per ha against a recommended level of 50kg of nitrogen per ha (Phiri, Oluoch-Kosura and Karugia 2002). Without significant investments at household level in soil fertility interventions (both inorganic and organic materials) no alternatives for improving smallholder farm productivity readily comes to mind. Yet as we have posited, due to lack of cash incomes to purchase inputs or hire labor, nearly all households do not have the ability to invest in their soils. With such a weak natural capital base, it is easy to predict that those households currently poor will remain so if no changes occur. These changes ought to involve building innovative policy structures that will foster the development of rural financial systems that can serve the rural poor and enable them to finance diverse productive activities in the farm sector as well as to finance short term subsistence consumption. In the short term, such policies will entail substantial resource allocations. However, as their impact begin to be felt, the need for continued credit will be reduced and a self-sustaining agrarian and non-agrarian economy shall have been put in place.

Education and Non-farm sector employment

Development policies aimed at increasing smallholder farm productivity, as the basis for dismantling chronic poverty will inevitably be insufficient in achieving the

foregoing aim. In view of dwindling farm sizes, it is important to create development initiatives which will help relieve the pressure on land, which can no longer provide adequate economic opportunities for everyone. This is possible through enabling more and more people to be absorbed in other sectors. Improving educational attainments will be vital in this together with expanding the range of lucrative non-farm opportunities in the area. Observed trends show that secondary school completion rates are declining (Fig. 2). This must be related to the fact that between 1989 and 2002 the average cost of school fees in one year in a local district secondary school have increased 10 times. Given that 80% of households members do not have post-primary education, their employment now, and perhaps in future, remain limited to subsistence farming, and other unskilled activities unless radical investments in human capital are made. Such radical investments will be multifaceted including adult education and other avenues of training and informal education and finding ways of either lowering costs of educating children or providing credit support for child education both from primary school to college.



A vital adjunct to improving human capital through education and training is the issue of how the other sectors of the local and national economy will be expected to grow to absorb greater numbers of well-educated manpower. As far as local non-farm wage employment opportunities are concerned, the best jobs available are limited to mainly primary school teaching and clerical jobs in local county authorities and government departments (which are currently laying off much of their staff). Private sector opportunities are even more limited the most common being employed as *matatu* drivers. Better-educated people therefore get better jobs in the far-flung and bigger cities of the country.

Summary and Conclusion

The inferences drawn from this brief lend weight to the assertion that putting emphasis on smallholder agricultural sector in a land scarce situation as the major basis for improving incomes and poverty alleviation may be unsustainable in the long run as population increases

and the major resource base-land- dwindles. Policies meant to drive rural transformation justifiably take due cognizance of agriculture but where land sizes are decreasing, equal if not more emphasis (in relative terms) must be placed on the non-farm sector. Yet opportunities in the non-farm sectors will only be exploited by those who have acquired sufficient skills through formal education and other avenues of informal training to enter into more lucrative wage markets or self-employment.

Acknowledgements

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Appendix 2

Programme

Time	Presentation	Moderator/Presenter
<u>Friday, 13th June 2003</u>		
10:30 am	Welcome address Introduction of Participants	Mark Otieno
11:00 am	Feedback presentation and sharing of preliminary results on Poverty Traps- Part I	Paswel P. Marenya
11:30 am	Tea Break	
12:00 am	Introducing Social Aspects Dynamic Poverty Traps study - Part II	Paswel P. Marenya, Wesley Ongadi and Nelson Mango
12:15 am	Working groups on thematic issues	Nelson Mango and Wesley Ongadi
1:45 pm	Group presentation on thematic issues	Nelson Mango and Wesley Ongadi
3:15	Workshop closing Lunch	Mark Otieno

Appendix 3

List of Participants

<p>Paswel P. Marenya Lecturer, University of Nairobi P.O. Box 29053 Nairobi e-mail: agecon@insightkenya.com</p> <p>Dr. Nelson Mango, Consultant, ICRAF-Nairobi, P.O. Box 30677, Nairobi. e-mail: n.mango@cgiar.org</p> <p>Wesley Ongadi Consultant, ICRAF-Kisumu P. O. Box 21599 Kisumu. e-mail: wongadi@yahoo.com</p> <p>Mark O. Otieno Ag. Divisonal Extension Co-ordinator Emuhaya Division, P.O. Box 74, Emuhaya</p> <p>Sarah L. Ambwaya Field Extension Officer Emuhaya Division P.O. Box 74, Emuhaya</p> <p>Japheth B. Amunga Translator Box 269 Luanda</p> <p>Farmers</p> <p>Javan Box 48 Mahanga</p> <p>Jemisi Saliky Box 48 Mahanga Joseph Jumba Box 179 Vihiga</p> <p>Fred Chadeka Box 170 Vihiga</p> <p>Humphrey Obiayo Box 48 Mahanga</p>	<p>Benson Ungugo Box 47 Mahanga</p> <p>Charles M Madianyi Box47 Mahanga</p> <p>Hrun Ombajo Box 47 Vihiga</p> <p>Painito Muyoma Box 48 Mahanga</p> <p>Samson Vuluku Box 45 Maragoli</p> <p>Luciola Caleb Ong'ere Box 48 Mahanga</p> <p>Fanueli Musatsi Box 381 Vihiga</p> <p>Dickson Alwaga Box 381 Vihiga</p> <p>Francis Oshago Box 381 Vihiga</p> <p>Edwin Gomdosio Box170 Maragoli</p> <p>Joel Kisamba Mazaria Box 62 Vihiga</p> <p>Simon Mitume Azere Box 70 Vihiga</p> <p>Aswani Charles Box 179 Vihiga</p> <p>Joram Kamoyani Box 398 Vihiga</p> <p>Luka Matiti Box 73 Vihiga</p> <p>Meshack Kagali Box 47 Vihiga</p>
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Jeffer Mweresa Box 287 Vihiga	Thomas Mahonga Box 36 Maragoli
Mrs Zerephata Kijanane Box 27 Mahanga	Japheth Volenri Box 36 Maragoli
EmbukaOleanyi Box 36 Maragoli	Mavin Kisanya Box 36 Maragoli
Peter Lomosi Box 41 Mahanga	Kamadi Mukangura Box 36 Maragoli
Manoa Kilima Box 381 Vihiga	Evans Longongu Box 36 Maragoli
Peter Mwomole Box 250 Vihiga	Rose Kanzika Box 36 Maragoli
Peter Savure Box 47 Vihiga	Ayilenyi Chegenye Enemia Box 36 Maragoli
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Eliakim Masiva Box 36 Maragoli	Onguro Malengure Box 36 Maragoli