Coping Strategies of Poor Households in Semi-Arid Zimbabwe

Final Technical Report

Project Summary

NRSP

Natural Resources Systems Programme

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1 Executive Summary

Goal
The programme goal is to achieve improved livelihoods for poor people in semi-arid areas. The present project represents the first phase of research in Zimbabwe designed to contribute to this goal. Its task was to identify and model the parameters of livelihoods and coping strategies in Zimbabwe's semi-arid areas together with key researchable constraints and possible new livelihood options.

Purpose
This was to understand, develop and promote diverse coping strategies for poor rural households in semi-arid areas. This research was the first step towards the greater understanding of livelihoods strategies and assets including employment opportunities, access to markets and the structure of market systems. The changes to which the research will contribute include:

- improved market integration of poor households in semi-arid areas;
- improved links between poor farm-households in semi-arid areas and policy makers and programme designers

Outputs
The research has built a model which

- Describes and distinguishes the livelihood strategies of different communities and/or social groups
- Identifies the poor within these groups and communities
- Identifies researchable constraints on the livelihood options of the poor
- Assesses the demand for 'new' livelihood options. (SAPS Call text, CNC99-01: p3)

This was based on:

- the literature on livelihoods and coping strategies in general, and in Zimbabwe's semi-arid areas in particular; and
- re-analysis of a pre-existing partially analysed dataset created by one of the research partners, Intermediate Technology Development Group (Zimbabwe) covering livelihoods in three semi-arid districts.
- Brief gap-filling fieldwork in Zimbabwe.

The model hypothesises that diversification within farm enterprises and to the non-farm sector is the key strategy for most poor households in semi-arid areas seeking to improve their livelihoods. Key constraints include disorganised rural markets; an absence of savings and working capital for enterprise start up and expansion, including the institutions which would facilitate this; poor management of low value common property resources, limited access to some new forms of social capital; and the difficulties of rebuilding key household assets – e.g. livestock – after a severe drought.

While diversification into non-farm occupations offers a pathway out of poverty, and a degree of specialisation in non-farm occupations supported by higher educational levels is a sign of relative wealth and livelihood security, it is nevertheless true that agriculture and common property resources provide the majority of entitlements for the poor: agricultural and CPR improvements, including related value added (marketing and processing) opportunities, remain critical for these groups; agricultural (and related) improvements will be more equitably distributed than non-agricultural. Improving crop yields remains independently important too, since a very substantial proportion of production is for home consumption.

The possibilities for market integration for poor households are dismal. There is a need to develop institutional arrangements which remove part of the risks of greater market involvement. These might include: vertically integrated commodity trading arrangements, an exploration of the various possible approaches to trade financing, and simple savings and credit institutions to generate a culture of credit management as well as a greater demand for labour in rural labour markets. Attention to the constraints on urbanization in predominantly rural areas would also be welcome.

Education and accessing better paying jobs remain pathways out of poverty, but access to jobs and post-primary education are more constrained than they were for poor people. Social capital – in the form of relatives living in town – may be particularly important in facilitating this pathway, but this is increasingly available to the few.

Livestock ownership, employment opportunities and effective food for work have been critical to coping with and recovery from drought. The failure of livestock insurance in the 1991-92 drought was the major reason for the absence of widespread ‘bounce back’ or recovery. The absence of effective widespread social protection measures has meant that poor households have not been in a position to take the risks involved in diversification.

Key researchable constraints were identified in the following domains: risks, governance, household size and structure, the state of natural resources, and markets.

Key researchable constraints

Domain	*Researchable constraint*	*Research options*
risks	Major neglected crop pests (birds and baboons) Absence of social insurance Absence of social protection for vulnerable groups	Physical barriers, technical and market based opportunities Explore constraints on private and public insurance Explore feasibility of targeting of existing and development of new social protection measures
governance	Affordability of services, especially health and post-primary education Effectiveness of government grain loans	Review of cost recovery and management systems Review of loan recovery and targeting systems
household size and structure	Poor demand for labour in the rural economy Constrained supply of labour in poor households	Exploration of constraints on rural enterprise growth and labour demand Review of social protection opportunities which might enable release of labour for productive purposes
the state of natural resources	The decline in quality of Common Property Resources as a basis for livelihood diversification	The scope for and feasibility of improved CPR management, and enhanced access to CPR for poor households
markets	Low level of monetisation of the rural economy Poor reach of key market actors Low level of urban development	Analyse absence of savings and credit market as potential root constraint underlying enterprise and labour market stagnation Explore reasons for low market penetration by organized sector Examine constraints on small service town development

'New' options were identified by the researchers after fieldwork.

New livelihood options

Objective	*'New' options*	*Ways forward*
Enhance security/ level of retained output	Low External Input Sustainable Agriculture including Integrated pest management and composting Land management programmes Enhance information flows Widening ownership of livestock	Strengthen research and extension focus on improving subsistence as well as cash cropping Programmatic linking of soil and water conservation with employment generation Farmer's clubs need to be opened to the poor. There are no legal or constitutional barriers to this, but institutional norms will need changing Animal loans would be particularly significant in enhancing resilience and reducing sensitivity of livelihood systems to drought.
Enhance the market for widely produced or produceable goods and services	Marketing Oxen (plough set) and scotch cart hiring schemes Enhance functioning and scope of labour market Develop appropriate financial services market for the poor	Exploration of risk reducing vertical integration and value addition of range of commonly available agricultural and CPR products Scope for enhanced functioning of basic rural input markets
Avoid further strain on overstretched resources (CPRs, women's time)	Agro-forestry and non NR based artisan occupations as alternative to (difficult) better CPR management	Explore scope for creation of markets for scarce CPR outputs
Diversification into low risk or higher return activities	Reduced risk vertical integration in agriculture Local value-added processing: cotton ginning[1], peanut butter processing; vegetable canning[2]	Exploration of opportunities in new context and constraints on firms

[1] This would provide pro-poor local employment and allow for the local retention of cotton seed for processing as cooking oil and animal feed.
[2] Allowing local 'gardening' producers to access new higher-value and distant markets

Future research
Two directions for future research were drawn from this project, the first of which would be suitable for funding under NRSP.

Market improvement
A research project focusing on the reduction of risk for poor households in semi-arid areas through the improvement of markets including vertical integration, the extension of financial services to enterprise and households, and understanding the constraints in the poultry (and vegetable/fruit) markets.

Social protection
A wider policy research project focusing on the extent to which a stronger approach to drought-related safety nets and social protection could be developed in Zimbabwe, in order to underwrite rural livelihoods in a fragile, AIDS affected and highly unequal economy.

In either case the research should be accompanied by a resurvey of households in the ITDG dataset, to track progress and the impact of changes (e.g. the spread of HIV/AIDS) on livelihoods.

Research Activities
These included:

- A review of published and grey literature, and analysis of available raw household study and PRA data to ascertain range of livelihood strategies in Zimbabwe's semi-arid areas. Initial identification of information gaps.
- Analysis of the ITDG dataset.
- Conduct small 'gap-filling' studies.
- Sharing the draft model with target institutions through a workshop.
- Dissemination of research findings through communications, teaching materials and conference papers.

Activities which are still to be undertaken include:

- Sharing the model more widely with stakeholders.
- Dissemination of research findings through paper based and electronic media.
- Drafting of journal article.

The project schedule experienced delays due to the political situation in Zimbabwe, and conflicting time commitments of the research partners. A final workshop is still to be held in Zimbabwe to share the model more widely with potential users, and to receive feedback.

Contribution of outputs
At this stage the model can inform

- Development projects focused on enhancing livelihoods in semi-arid areas in Zimbabwe (e.g. those of ITDG, CARE and other NGOs), and
- The selection of research priorities by research organisations in Zimbabwe and NRSP.

The principal contribution of the model lies in the following testable conclusions:

- Recovery from the 1991-92 drought was difficult for many households in the semi-arid areas.
- Diversification of the livelihoods base is the predominant strategy for recovery and provides the main pathway out of poverty.
- The constraints bearing down on a majority of households have been sufficient to prevent them diversifying significantly or adopting 'new' livelihoods options.
- Market, research and extension systems have rarely effectively addressed the particular conditions of poor households in semi-arid areas.

Communications and materials
Dissemination undertaken:

- Presentation at NRSP Workshop on Poverty Reduction and Natural Resources, November 2000
- A paper ("Modelling livelihoods and coping strategies in semi-arid Zimbabwe") presented at the conference of the UK Development Studies Association (November 4, 2000)
- A article in ID21, November 2000
- Responded to request for further information from Alex Turrall (DFID Central Africa)
- Article in NRSP Research Highlights 1999-2000 'Getting out of poverty' (p 3-5)
- University of Birmingham, International Development Department Research Seminar, February 2001
- Inclusion in teaching materials, MSc *Poverty Reduction and Development Management* and MSc *Rural Development*, University of Birmingham

Dissemination in future will focus on:

- A dissemination workshop to be held by ITDG in Harare.
- Electronic dissemination of the scientific report through existing networks in Zimbabwe
- Inclusion of material fm this research in forthcoming *World Development* article in Chronic Poverty in Remote Rural Areas for special issue of *World Development* April 2003.
- *Chronic Poverty in Semi-Arid Zimbabwe*, Chronic Poverty Research Centre, Working Paper, April 2002

2 Background

The programme goal is to generate benefits for poor people in Zimbabwe and other target countries by the application of new knowledge to natural resource management in semi-arid production systems. By 2005 there should be evidence of the application of research products to benefit target communities by achieving one or more of the following:

- a sustainable production increase
- less variable production
- productivity increase
- improved employment (numbers, income, quality)
- improved access by poor people to RNR output

The present research project represents the first phase of research in Zimbabwe designed to contribute to this goal. Its task was to identify and model the parameters of livelihoods and coping strategies in semi-arid areas, and the researchable constraints and new opportunities faced by poor households. In this it was to build on two existing forms of knowledge:

- the literature on livelihoods and coping strategies in general, and in Zimbabwe's semi-arid areas in particular; and
- a pre-existing partially analysed dataset created by one of the research partners, Intermediate Technology Development Group (Zimbabwe) covering livelihoods in three semi-arid districts.

Demand for the project was identified by DFID's Natural Resources Research Programme. This phase of the research has confirmed both the need and demand for research in this field. The semi-arid areas have been neglected both by state policies and systems as well as the private sector. Despite Zimbabwe's excellent national infrastructure these areas have not been well integrated into markets nor are their needs and demands well articulated through the political or policy process. Zimbabwe's poor are very substantially located in the semi-arid regions.

3 Project Purpose

The **project purpose** was to understand, develop and promote diverse coping strategies for poor rural households in the semi-arid systems of two countries. It was expected that by 2001, livelihood strategies and assets would be comprehensively understood, including *inter alia* employment opportunities, access to markets and the structure of market systems. By 2003, strategies which improve the livelihoods of the poor would be validated and adopted by target institutions in the two countries.

The changes to which the research will contribute include:

- improved market integration of poor households in semi-arid areas;
- improved links between poor farm-households in semi-arid areas and policy makers and programme designers

Key assumptions behind the expectations of this research over the longer term are that target beneficiaries (poor households in semi-arid areas) are able to adopt and use the strategies and/or approaches identified. This is partly a matter of research design – researchable constraints must include a strong focus on the ways of removing or reducing barriers to adoption. It is also partly a matter of monitoring the fortunes of poor rural households and 'their' organisations – organisations which represent or serve them. Over the research period efforts should be made by researchers to include such organisations in problem definition and the strategic direction of the research.

Secondly, it was assumed that an enabling environment existed. This would include favourable conditions for greater market integration and an increasingly competitive political process which generates spaces for participation in policy making for the poor. While overall economic growth would undoubtedly contribute in many ways to livelihood opportunities and security in semi-arid areas, a stagnant or declining economy may nevertheless present poor producers and consumers with *some* opportunities, for example, to replace/ compete with for import substitutes which are no longer produced by disinvesting big companies.

Similarly a weakened state is unlikely to benefit Zimbabwe overall, but certain aspects of weakness may have benefits for semi-arid areas. For example, letting local people have a stronger say in the management of low value common property resources may well bring advantages in this critical area of livelihood security and opportunity. Similarly, a greater diversity in *de facto* response to problematic issues like soil and water conservation would be beneficial for the semi-arid areas, which tend to have had technical solutions appropriate to higher rainfall or resource rich areas imposed on them.

4 Outputs

From this (and the next) phase of the research the key output is improved understanding of current livelihood strategies of poor people in Zimbabwe's semi-arid areas. This understanding is being developed from secondary literature and the ITDG data set, complemented by limited fieldwork to fill in some of the gaps in understanding. This improved understanding is being cast in the form of a 'model', consisting of a set of interconnected hypotheses which will require testing in the next research phase. The model

- Describes and distinguishes the livelihood strategies of different communities and/or social groups
- Identifies the poor within these groups and communities
- Identifies researchable constraints on the livelihood options of the poor
- Assesses the demand for 'new' livelihood options. (SAPS Call text, CNC99-01: p3)

This output has been achieved. Greater understanding now exists, which needs to be put to the test more widely, and more deeply through a greater range of research methods.

The model draws attention to common features of the livelihoods strategies of (a) all households in semi-arid areas; (b) the different categories from poorest to richest income quintile; and (c) the three semi-arid districts included in the dataset. It was expected that the model would need to cope with diversity rather than uniformity, hence the importance of breaking down livelihood strategies by district and income categories in the analysis. Testing the model in the next phase of the research will need to test both the common features as well as the diversity found.

The model of livelihoods and coping strategies: summary

The model of livelihood strategies derived from the ITDG database was characterised in several stages as follows:

- A differentiation by income categories ('food poor', 'consumption poor' and non-poor)
- A characterisation of the sample population by livelihood portfolio
- A breakdown by district – this was considered very important as the patterns in the three districts were different in many respects. In no way could this stage of the research determine whether the findings of this limited sample was 'typical' of semi-arid Zimbabwe, nor whether the notion of typicality is relevant in this case.
- An analysis of main and subsidiary sources of income - farming, common property resources, non-farm enterprises and salaried/waged work
- An analysis of perceived change over the period 1993-98. This enabled an identification of who had recovered or not recovered after the 1991 drought, and what the correlates of recovery were.

A summary of the findings is presented below.

The dataset

The major approach was to re-analyse data on three semi-arid areas out of four communal areas surveyed by ITDG in 1998. The dataset developed from this household survey was designed to explore the effects of structural adjustment in communal areas in Zimbabwe. The quality of the original ITDG dataset was evaluated:

- Its strength lies in the size of the sample, the coverage of three predominantly semi-arid districts, the detail available on household livelihoods and the composition of households and household incomes, and the qualitative PRA-based research which preceded it.
- Its major limitation lies in the way in which change was investigated: respondents were asked whether and how many aspects of their livelihoods had changed, but the magnitude of the changes were generally not quantified.

The context

The Zimbabwean economic and political context was increasingly difficult in the 1990s. This was one of increasing pressure on land in the communal areas due to population growth, the return of unemployed urban people to rural areas; reduced remittance flows resulting from shrinkage in the urban (formal and informal) economies; reducing life expectancy due to HIV/AIDS (which is expected to translate into a declining population by 2003); reduced per capita income at the beginning of the 1990s following the devastating 1991 drought and low and volatile growth in the 1980s, picking up somewhat by 1998; significant dependence of per capita income trends on the rainfall pattern (strongly below the average normal during the period) and the performance of the agricultural sector. While there had been progress in smallholder maize production this was restricted to the 10% of households in the higher potential areas with capital to invest in fertiliser. Increased farm gate prices following devaluations in the early 1990s benefited few farmers as few produced much surplus for sale, and many were net buyers of maize. The long term trend in real crop prices was in any case strongly downward as elsewhere in the world. There was chronic under-employment and open unemployment, and the 'peasant farming' sector absorbed much of this.

Three quarters of the rural population was reckoned to be below the national poverty line in 1995, and the prevalence of extreme poverty, as measured by the Food Poverty Line, increased in the 1990s from 17 to 37% of the rural population.

The government's major rural development policies centred on

- Increasing smallholder agricultural production
- Land redistribution and
- Drought relief

These generally proved unequal to the task of assuring improving livelihoods for the majority, and were not enough to restrain the growth of extreme rural poverty. HIV/AIDS began to take a heavy toll, with deaths in the 15-35 age bracket, increasing numbers of orphans and households headed by grandparents, women and children. Livelihoods impacts of HIV/AIDS included:

- Increased responsibilities for care and income for grandparents
- Girl children reducing school attendance
- Women's time increasingly taken up with caring, and reduced time available for income generation
- Reduced ability to pay school fees
- Increased use of child labour
- Reduced agricultural output
- Asset stripping of widows and orphans

Government policies have been inadequate to this challenge, and all the signs were of worse to come.

The case study districts

Chivi and Gutu are densely populated and semi-arid with poor soil. They are isolated with very weak non-farm economies and urban links. Matopo, the most arid of the four areas is also partly mountainous, but it is near a large city (50km from Bulawayo, Zimbabwe's second largest city), which has had a number of important impacts (lower numbers of female headed households, a higher degree of diversification). Matopo is a traditional livestock herding area (with median herd size of four animials, the same as the median in Guruve but twice that of Chivi and Gutu), but has poor grazing despite having more natural forest remaining than the other two semi-arid areas in this study.

Poverty, wellbeing and livelihood strategies

A static analysis of the livelihoods of the poor in the three semi-arid districts, focusing on the correlates of poverty and the relationship between poverty, well-being and livelihood strategies. Not surprisingly, there were significant variations among the three districts. The principal difference was between Matopo and the others.

Within districts there was a striking degree of income differential, and considerable variety in the major sources of income. Overall, nearly three quarters of households were extremely poor – below the 'Food Poverty Line'. The non-poor were 16% of the sample. Almost all households relied to a significant degree on 'retained output' (i.e. subsistence production). Non-farm income, wage income and remittances were all significant sources for a substantial proportion of households. Higher income households typically received more wage and remittance income, while lower income households were more dependent on retained agricultural output and were generally less likely to be strongly engaged in markets, with the exception of those in Matopo where markets worked better. The markets which did engage poor households were activities like beer brewing or construction which involved high levels of drudgery.

Critical assets correlated with higher incomes were oxen, scotch carts and wheelbarrows. Overall, household and agricultural assets were very unequally distributed with only ploughs and poultry, among the principle agricultural assets, being very widely distributed. Education enabled households to engage in the wage labour market and some diversification from subsistence agricultural production. Social capital (measured by borrowing labour, livestock, credit and implements and membership of farmers', women's and gardening clubs and other informal organisations) was important especially for borrowing oxen, livestock and labour but was not correlated with income. The wealthiest households had opted out of lending systems – perhaps as a strategy to protect their accumulating assets, but also because they were able to access inputs using market mechanisms, with lower transaction costs than those applying to traditional reciprocal arrangements.

Income was associated with household size and structure, the sex of the household head, and dependency ratios. Contrary to expectation for an economy dominated by subsistence production, and agricultural activities more generally, households with large numbers and large numbers of economically active adults were more likely to be poor. However, there was much variation across the income groups. Overall, wealthier households were smaller; poorer households had more children but the degree of association was not very strong. On the other hand, an analysis of labour availability in agriculture indicated that the availability of labour was a constraint for many households. This was especially so in Matopo, where there was more competition for available labour and greater use of child labour, and where small families faced particular difficulties. Very few households in any of the study districts looked to the labour market to solve labour constraints, indicating the low level of market involvement of most households. Enabling children to live long enough to be healthy productive adults was clearly critical to household well-being. Given the increased prevalence of HIV especially among teenagers, this is likely to have become an even bigger constraint for many households since the survey was carried out.

Women headed households did better in natural resource-based occupations than male headed, and the key to this was adding a poultry and/or a gardening (hand irrigated horticulture) enterprise to the farm; the opposite was true for wage work, and non-farm or mixed livelihood portfolios, where women headed households did not perform well. In the market men competed better due to higher education levels, and the generally higher pay for work they commanded.

Markets were not sufficiently organised or attractive to engage poor people, except in Matopo. Elsewhere barter dominated as a form of exchange, and poor households made few transactions through the market. The only widespread exception was the purchase of maize seed. Chapter 7 documented the retreat into subsistence between 1993 and 1998. However, while some were retreating, a quarter or so were experiencing good prices, more outlets and selling more varied products. Within agriculture, changes in cropping pattern seemed to be driven by profitability considerations and price responsiveness, despite the subsistence orientation of many.

Government grain loans gave some important income smoothing support to many poor households in Chivi and Gutu and fewer in Matopo, and food for work had been a significant source of cash to finance agricultural activities for a small proportion of households. However, the net effect of such social protection measures was certainly not enough to prevent impoverishment or provide a floor to poverty. Agricultural extension services were widely available, even to poor households – no mean achievement at a time when the service was under pressure to be lean and efficient. However, there was little that the information provided alone could do to counteract the risks and weak markets producers in semi-arid areas had to face.

Change in livelihoods and well-being

The overwhelming picture was of decline in well-being, consumption and non-recovery from the effects of the 1991 drought. Even many of the non-poor reported decline. The exceptions were mainly in Matopo, which experienced considerably greater dynamic positive change:

- The economy of Matopo was significantly poorer but more diversified, despite much lower population densities (partly due to its mountainous topography), reflecting the power of urban proximity
- Many more households experienced improvement in Matopo, in crop sales, non-farm income, and food consumption.
- 50% of households reporting increase in clothing consumption and 75% of households reporting increases in transport consumption were in Matopo.
- Chivi, by contrast, had the most households reporting decline across several indicators, and many reported increasing consumption of health services, which could be a result of declining incomes and food consumption.

Many, especially the poorer households, had agricultural land lying fallow because they did not have the means to cultivate it – insufficient draught oxen and labour. There was poor availability of financial services throughout the 1990s, which meant these assets could be acquired only with difficulty. There were substantial numbers of households whose livestock holdings declined during this period. This applied even to small stock and poultry.

Decline was generally worst for the poorest households, who were also those dependent on natural resources, casual labour and low levels of remittances. Many of these were women headed. These households were more likely to report decline in consumption of health services as well as other items – richer groups were less likely to report this, indicating the sacrifices people made, where this was possible, to treat sick members of the household.

A recovery index was calculated, based on perception of 8 change indicators. Failure to recover was widespread (4 out of 5 households), but especially marked for the same

groups (those dependent on natural resources, casual labour and low levels of remittances), plus households whose head had no education at all.

Recovery was greater in Matopo, and food consumption for large households. In terms of livelihood portfolios, households with agriculture and trade (generally somewhat better off anyway), and the combination of farming, gardening and poultry were likely to report positive change. Improved food security and well-being in Matopo was associated with increased agricultural income, output and sales as well as non-agricultural income. And the poorest also benefited. Possible reasons were thought to be:

- A lower starting point (households in Matopo were poorer than others in 1993)
- The more rapid development of a liberalised market in the vicinity of a major urban centre – Bulawayo. This affected the opportunities in construction and services, as well as more widely.
- The more mixed nature of the household livelihood portfolios, with many moving into non-farm activities over the period.
- The smaller proportion of women headed households.
- The greater access to extension.

Overall, the livelihood portfolios which generated the best recovery were waged, non-farm and mixed farm and non-farm. For the poorest adding a poultry enterprise or wage employment to the farm were the best strategies. Very few households remained with remittances or casual labour as their *only* source of cash income by 1998. Most had been compelled at least to farm, but many had also done other things.

Diversification was helped by education. Non-agricultural incomes were generally more resilient in this post-drought period, especially for the better off, but even for those of the poor and poorest who had these non-agricultural income sources. Smallholder agriculture was clearly in a crisis of profitability.

While it was not clear that size of household or dependency ratios had a systematic effect on well-being or recovery, what was clear was the significant net loss of adults in the sample as a whole through marriage or migration as well as death, and this tended to be most pronounced among the poorest. This net loss was likely to have increased since the survey, due to HIV/AIDS.

The characteristics and experiences of the poor in semi-arid Zimbabwe

There was a big per capita income differential from top to bottom (mean differential across income sources: 1:23), despite being only a relatively poor segment of Zimbabwe society, but the differential varied hugely between income sources

- For retained output the ratio was: 1:2.5
- For crop sales: 1:5
- For livestock sales: 1:4
- For non-farm income: 1:5.5
- For remittances: 1:9

- For wages: 1:35

For most households the value of retained output was more significant than cash income from crop/livestock sales, by factors of between 3 and 10.

Cash income came largely from non-farm sources and wages. Remittances, crop and livestock sales all contributed less than 10% of total household income.

Some assets were strongly associated with income: oxen, scotch carts, and wheelbarrows in particular. Education (of head of household – a proxy for education of the household as a whole) was also strongly associated with total income, with cash income, and with diversity of income sources.

The key characteristics of households below the poverty line (Income Groups 1-3, the 'consumption poor' were 84% of the population) were: they were large households, more likely to be divided into multiple unit, but did not have significantly higher dependency ratios. They had both a low level of income and of assets. They had not recovered their position since the 1991 drought – in fact the opposite was the case. They had strong dependence on borrowing e.g. for critical agricultural inputs like draught power, based on payments in kind. They were less educated than non-poor. Frequently they reported being short of adult household labour, despite being large households.

There was experience of both positive and negative change during the 1993-8 period. Common features of positive change included the following:

- Non-agricultural income was much more likely to have increased or to be stable, with the exception of remittances.
- Livelihood improvement was more likely for less poor households (IG 3-5)
- Improvement was also more likely for smaller households. However, there was some variation depending on livelihood portfolio, indicating that larger households could find portfolios which brought increased returns.
- Many more households experienced improvement in Matopo, in crop sales, non-farm income, and food consumption.
- 50% of households reporting increase in clothing consumption and 75% of households reporting increases in transport consumption were in Matopo.
- IG 3-5 experienced growth of remittances.
- IG 3-4 had increased crop sales.
- Households with wage earners experienced less decline in crop sales than others.
- Food consumption held up better for those with wage income, non-farm income or mixed (NR and non-NR based) livelihood portfolios
- Only IG 5 consistently experienced an increase in food consumption.
- Nevertheless, larger households reported an increase in food consumption more frequently than smaller households.

Many households also experienced a downward pressure on their well-being and livelihoods:

- Most households reduced consumption, especially of clothing and transport, but also of food. (The least reduction was made in health – clearly seen as a very necessary expenditure by most.)
- Households dependent mainly on NR-based activities and/or casual wages and remittances experienced the worst perceived decline across a number of well-being indicators: food security, agricultural income, crop sales, non-agricultural income, household food consumption, consumption of health services.
- Very few households could afford to depend on remittances as their main source of income by 1998.
- Chivi had the most households reporting decline across several indicators, and many reported increasing consumption of health services, a result of declining incomes and food consumption.
- Women-headed households, and small households strongly reduced crop sales; large households were more likely to report increased crop sales

Livelihood strategies and poverty reduction

What can we say about the livelihood strategies of different socio-economic groups in the semi-arid communal areas?

The poor relied on production for own consumption and had weak engagement with markets. This was even true for the non-poor IG 4. The poor were also strongly reliant on natural resource based work. Their livelihood portfolios were made up of low entry barrier and high drudgery occupations. However, even for the poor, education enabled diversification from subsistence agriculture and access to the wage economy.

The very poor had even less diverse portfolios; even within agriculture they farmed fewer crops, or kept a smaller range of stock. They had very little *cash* income from self employment (especially IG 1), and very little wage employment (as opposed to occasional casual work). Retained output was very often their *only* source of income. $^1/_5$ got remittances; $^1/_3$ had some non-farm income; and only ¼ had sold agricultural output.

Women-headed households were locked into natural resource based occupations and casual labour as a result of the 'traditional' gender division of labour, and low education levels. Women headed households diversified *within* natural resource based occupations, while men-headed households tended to diversify outside it. Nevertheless they were able to accumulate more of some key assets for such livelihoods, e.g. scotch carts, ploughs, wheelbarrows and donkeys if they had the cash to acquire them. Access to remittances and casual labour were critical to acquiring these assets

The non-poor (IG 4) depended significantly on wage and remittance income, and were hardly involved in agriculture. However, even among this group a significant proportion reported decline in well-being between 1993 and 1998. *The better off non-poor (IG 5)* tended to be disassociated with arrangements for social solidarity (e.g. lending labour, livestock, credit, implements) and were even less involved in agriculture.

The two livelihood portfolios which consistently did worst in terms of perceived well-being (food security, agricultural income, crop sales, remittances, household food consumption, health service consumption were all likely to have decreased)were the natural resource based portfolios (especially those reliant only on farming, less so for those who added poultry and/or gardening), and those reliant on casual labour and/or remittances.

The portfolios which did best, on the other hand are 'agriculture plus': agriculture plus either remittances, or construction, trade or wage income; and wage earners who also engaged in trade. For the poor, adding poultry to farming increased incomes significantly, as did adding a service or (only for IG 3 among the poor) trade.

Researchable constraints on the livelihood options open to the poor in semi-arid Zimbabwe.

It is expected that neither the availability of agricultural technology nor of production information was a strong constraint, given the comparative effectiveness of the Zimbabwean research and extension services. However, it was observed that the use of hybrid seed was restricted to maize for most growers, as well as cotton, sunflower and tobacco for the small numbers of farmers who grew them. It may be that the markets for hybrids for other crops have lagged behind. If this is the case, and where there are new seeds which respond well to a low input environment, efforts to multiply and distribute these seeds would have high and well distributed returns.

The availability of land *per* se was also not a constraint, interestingly, given the policy emphasis on land redistribution[3]. (Communal areas are often on poor or poorly served land. High density, intensive agriculture is inappropriate, leading to high risk agriculture and low or variable yields. Land may not be a constraint, but land of a good quality can be.)

Constraints were found in the following domains: risks, governance, household size and structure, the state of natural resources, and markets.

[3] Any real demand for land redistribution probably came from different constituencies – the urban unemployed for example. Some rural households might have been short of land, and communal farmers were often on poor land, so might appreciate accessing better quality land. However, the constraints on its use would still broadly exist.

Risk profile
There was continued dependence of poor households on high risk (rainfall quantity and year on year variation, pests, and evolving private sector markets) agriculture. Agricultural research could focus on some of these risks, as indicated below:

Unusual researchable technical constraints[4]

Constraint	***Current Response***	**Potential Response**
Bird attacks on millets and sorghum	Reduction in households cultivating millets	• Research Quelia-bird behaviour (what can be done to control flocks, reduce numbers etc.) • Develop a market for hunted birds (Trap birds. Birds become new CPR-based livelihood) • Develop new spiny varieties • Develop bird-scarers
Baboon attacks on crops	Guard crops	• Fencing?
Baboon attacks on granaries	Design of granaries – break-in requires dexterity	• Improve design?

There was widespread failure to recover from asset depletion caused by 1991 drought. Clearly the available coping, insurance and recovery mechanisms had not worked. The constraints on existing private and public as well as informal insurance could be much better understood. There is a need to investigate the possibilities for widespread private and public insurance mechanisms and services which could mitigate this situation in future.

There are vulnerable groups within the population who may need special protection. Women headed households, for example, typically had fewer physical assets and lower education levels. They were able to engage in less non-farm diversification, and where this happened it was into low return or high drudgery occupations. It can be argued that they will never be able to invest and develop themselves without a strong pull up from a widows' pension, or child allowances which could put a floor to their vulnerability.

Governance
There were two strong constraints to recovery in the governance field. Public services were widely held to have become less affordable. Health in particular seemed to absorb

[4] Lipton and Longhurst long ago (1989) made the point that research systems never deal with the animal pests which damage crops, which are often the major causes of damage. Scientists have preferred to deal with pests which can be managed through agro-chemicals.

a significant proportion of available cash. This can be compared with the good record of the agricultural extension services in reaching the poor and women as well as more commercially oriented smallholders.

Government provided minimal social protection to cover the above risk profile. Only government grain loans (GGL) got to many (but not all) poor households, and to rather few in Matopo. GGL went less frequently to the most needy households with high dependency ratios. On the other hand, women headed households were more likely to get GGL. The loan element was not taken seriously by many. It is questionable whether grain distribution in to distressed poor households should be on a loan basis. There was thus scope for improvements in management of GGL.

Household size and structure

Large households with high dependency ratios consumed a lot, were constrained in paying cash for goods and services, and found difficulties paying for children's education. They needed a high level of retained output, but faced constraints of adult labour and draught power availability. Mobilising labour for agriculture was problematic for many smaller households in the lower income groups who did not have adequate labour themselves and did not have or have access to the working capital or food or beer supplies required to hire labour, or to the social capital to borrow it. Critically, households with high dependency ratios were less likely to increase their non-agricultural incomes[5].

Labour availability was a critical constraint for these households, which will have intensified with the onset of HIV/AIDS in these districts. Identifying the key constraints to the development of the rural labour market is arguably the single most urgent future research task. This is tied up with the scarcity of cash, liquidity and credit in this quasi-cashless economy[6]. It is also tied up with the issue of social protection. There is a range of households who were unable to support themselves.

The state of natural resources

It is possible that declining natural resources undermined the ability of poor households to diversify their income sources through exploiting common property resources. A better idea about this may be available from the research on micro-catchments in Zimbabwe.[7]

Markets

The extent to which these economies were still, in 1998, un-monetised, is staggering. Opportunities for cash savings and cash credit were rare. There were limited opportunities for waged work, both in the formal sector and casual labour. This may

[5] This was one of the very few associations with dependency ratio. This variable was very poorly associated with most other variables in the dataset. A further exception was that high dependency households were less likely to receive government grain loans.

[6] It is expected that Matopo would be much less a 'cashless' rural economy than Chivi or Gutu.

[7] See NRSP Project on Micro-catchments in Zimbabwe, (R7304)

have been in turn partly a function limited credit for enterprise. The difference made by nearness to a town in the case of the Matopo villages studied was apparent. Elsewhere the limited development of rural towns as market hubs (critical for e.g. the sale of produce from gardening, but also the development of services and construction) was an enormous constraint on local economic growth. The constraints on small town expansion and prosperity are poorly understood. Opportunities for direct sales to powerful market actors were generally limited. Vertical integration was absent (except in cotton production, rarely pursued by poor households).

A root constraint?
From this picture can we identify 'root constraints' from which others emerge? A candidate would be:

- The savings, credit and insurance market: shortage of working capital constrained employment generation (ability to mobilise labour), livelihoods were pursued amid many uninsured risks, and there were no possibilities of secure (inflation-proof) cash savings.

However, even if there had been functioning financial services markets enabling savings, income smoothing, and a degree of access to credit and insurance, these would not have helped the many households experiencing significant decline in assets, incomes and well-being. Mechanisms to arrest such processes are still badly needed in Zimbabwe: adequate social protection and safety nets are simply not in place. In view of the country's economic decline, and the long-term implications of the HIV/ AIDS pandemic this is a major challenge for the future.

What is the effective demand for new livelihood options? (ToR)

A simple method for identifying relevant existing and new options was developed. This involved specifying a number of criteria which would need to be satisfied.

Criteria and evaluation of existing options & new options[8]

Criteria	Existing options	New options	Comment on New Options
1. Enhance security/ level of retained output	Gardening	• **Low External Input Sustainable Agriculture** focused on improving subsistence as well as cash cropping • **Integrated pest management and composting** • **Land management (public works) programmes** • **Enhance information flows**, though farmer's clubs and gardening clubs • **Widening ownership of livestock**	• Low external inputs affordable by cash-strapped poorer households • Soil and Water Conservation – these could generate employment at scarcity periods and in drought years • Enhance information flows – focus on marketing, knowledge generation. Farmer's clubs need to be opened to the poor. There are no legal or constitutional barriers to this, but institutional norms will need changing • Animal loans would be particularly significant in enhancing resilience and reducing sensitivity of livelihood systems to drought.
2. Enhancing the market for widely produced or produceable goods and services	Widen or deepen the market for poultry and eggs	• **Vertically integrate** crop production with processing and marketing (eg sorghum-*chibuku* breweries). • **Explore marketability** (including value addition) of range of commonly available CPR products	• Vertical Integration - this would involve combinations of private capital, fair trade organisations and/ or collective enterprises based on farmers' and gardening clubs. A number of farms and non-farm products could benefit from such arrangements • Reduce high transaction cost barter trade. Improve terms of trade for agricultural vs. processed goods. Improve transmission of market information and so farmer

[8] See Annex 6 for a longer list of 'new' livelihood options.

		• **Oxen (plough set) hiring schemes** • **Scotch-cart hiring schemes** • **Enhance functioning and scope of labour market** • **Develop appropriate financial services market for the poor** (savings, credit and insurance)	response to comparative and competitive advantage – move into optimal farm enterprises. Increase marketed surplus, following increased reliability of markets. Would allow the accumulation of cash savings; the mitigation of risk and the use of seasonal credit for the increased hiring of seasonal labour, benefiting the poorest (casual labourers); increased use of purchased inputs; and enhanced ability to store crops until market price optimal for sale.
3. Avoid further strain on overstretched resources (CPRs, women's time)	Exploitation of CPRs as: • source of raw materials for artisanal activities (clay for pottery and brick-making, reeds for basket making); • for food (wild fruits, honey, field-mice) and • for agriculture (grazing, leaf litter and termitaria for soil augmentation)	• **agro-forestry** on common land and homestead orchards • **Non-NR-based artisan or service occupations**	CPR management needs improvement; agro-forestry would help to tailor improvements to the needs of the poorer households
4. Diversification into low risk or higher return activities	Non-farm occupations	• **Reduced risk vertical integration in agriculture**	Exploration of constraints, and futures in the context of collapse and reorganization of large scale agriculture

Criterion 1 will give the most widespread benefits as all households retain output. However, most of the strategies under this heading probably do not need to involve new research at this stage.

Identifiable 'new' options

1 Strategies for strengthening subsistence

- gardens: good for the provision of greens, food security, women and local markets [constraint: what the local market can absorb.]
- low external input sustainable agriculture: good for soil water retention and therefore security; low level of purchased inputs fits pattern of scarce resources.

Potentially these strategies would benefit almost all households, with particular emphasis on the poorer and poorest who rely most on retained output. However, as we have seen above, preconditions for achieving and sustaining such benefits are the improvement of financial services, and the development of stronger safety nets.

2 Strategies for marketing widely produced goods and services

- improve opportunities (markets and services) for backyard poultry producers, taking advantage of the premium for free range table birds (and eggs?)
- explore vertical links with marketing and processing companies, especially in view of the threat to supplies from the commercial sector
- enhanced markets for under-used CPR outputs
    - wild fruits
    - apiculture

These strategies could benefit large numbers of poor people. There might be some barriers to accessing CPR (e.g. limited ownership of scotch carts and wheelbarrows, declining natural resources); there might be constraints to farm households diversifying into crops where there are vertical integration opportunities .

Investment in poultry and small stock represent a way for poor households of climbing back to a more robust livelihood portfolio. The level of production risk and market exposure associated with poultry and small stock will constrain take up.

3. Strategies for strengthening CPR management (see Section 4.6).

- Legally protect the common property status of current CPRs (to avoid sale by unscrupulous kraal heads)
- Investigate mechanisms for strengthening CPR management institutions (important for renewable resources for grazing, and non-renewable resources such as clay – extraction for brick-making and pottery)
- Counter deforestation by developing tree nurseries (employment and income for resource poor households) for agro-forestry on CPR land

(range of tree species, including fruit trees, flowering trees to support apiculture etc.).
- Develop fuel wood groves with fast-growing tree varieties with good burning characteristics.
- Investigate introduction of low fuel-use stove designs.
- Work with potters and basket makers to develop alternative raw materials which reduce bark use
- Widen and deepen market for selected low impact CPRs-based products, e.g. honey and wild fruits
- Seek to improve returns to, and resource-use efficiency in, selected CPR based enterprises e.g. pottery, brick-making, as an element in a CPR preservation and management strategy

4 Diversification
Livelihood diversification could be supported through activities to
- improve public transport provision
- develop entrepreneurship and human capital
- develop labour markets
- develop financial services markets
- develop agricultural output markets (including for high value cash crops such as cotton, paprika and 'gardening' or horticultural crops)
- support local post-harvest value-addition (credit for machinery and seasonal labour, market information, training in packaging and branding)

Research questions for phase 2

A long list is presented below, which is then narrowed to a short list using the following criteria:
- Researchability in today's Zimbabwe
- Likely dissemination and use of results
- Degree of impact on the poor and very poor]

1. How to extend critical secondary markets e.g. savings and insurance which could enable commodity and labour markets to function better?

2. Sub-sectoral analysis to see what can be done to stimulate labour-intensive growth locally and nationally.
   - What existing and new opportunities could be available to people with different levels of education?

3. Scope to extend vertical integration to low risk crops e.g. sorghum-*chibuku* breweries? Or stock e.g. poultry

4. What can be done to enhance the return to women's labour?

- Better access to farmers' groups (women are currently unable to access these except through their husbands. Women headed households are excluded)

5. Why is the current level of development of the poultry market so low?

6. How can the role of rural growth centres and small towns be enhanced to maximise the impact on rural markets?

7. What are the key transport constraints which make rural Zimbabwe increasingly a headload economy?

8. Has HIV/AIDS exacerbated the decline in well-being experienced by the majority of the sample between 1993 and 1998? Coping strategies of household reformation would have had beneficial effects on livelihoods and well-being if they resulted in greater resources of adult labour.

Evaluation of potential further research questions

Criteria	*Researchability*	*Dissemination potential within Zimbabwe*	*Impact on the poor*
1. Extension of financial services markets	High	Medium	High
2. Sub-sectoral analysis	High	High	Low-medium
3. Vertical integration	High	High	High
4. Returns to women's labour	Medium	Low	High
5. Rural growth centres and small towns	High	Medium	Medium
6. Poultry	High	Medium	High
7. Key transport constraints	High	Low	High
8. HIV/AIDS	Low	Low	High

Based on this analysis, the researchers' proposal is two-fold :

Market improvement
A research project focusing on the reduction of risk for poor households in semi-arid areas through the improvement of markets including vertical integration, the extension of financial services to enterprise and households, and understanding the constraints in the poultry (and vegetable/fruit) markets.

Social protection
A wider policy research project focusing on the extent to which a stronger approach to drought-related safety nets and social protection could be developed in Zimbabwe, in order to underwrite rural livelihoods in a fragile, AIDS affected and highly unequal economy.

Whereas the former is suitable for NRSP, the latter might need to be taken up by another research commissioning section of DFID, or be included in another research project proposal.

5 Research Activities

5.1 Review of published and grey literature, and analysis of available raw household study and PRA data to ascertain range of livelihood strategies in Zimbabwe's semi-arid areas. Initial identification of information gaps.

The majority of time under this research project was spent reviewing published and unpublished literature on livelihoods and coping strategies in general, in Zimbabwe, and its semi-arid areas in particular. A research associate was employed to undertake part of this work. The other major exercise was analysis of the ITDG dataset. This is a rich information base, which has only been partially exploited even now. Using the dataset was not as straightforward as anticipated, due to its construction, and proved very time consuming.

There is still further work to be done on the dataset, particularly on complex issues of social and human capital.

5.2. Share draft model with target institutions through workshop. (Identification of projects, NGOs, ministries and policy reform exercises in Zimbabwe and the region able to make use of research output.)

The review of literature and initial analysis of the dataset led to a working paper presented at a workshop in Harare (2 August, 2000) to which a number of potential future research stakeholders were invited. Unfortunately the workshop coincided with a general strike in Zimbabwe, so attendance was very low and feedback on the model limited. Nevertheless, a number of future research partners were identified.

The timing of the workshop was later than originally intended. This was due to conflicting commitments of ITDG Zimbabwe, and then the rapidly deteriorating political situation in Zimbabwe which rendered fieldwork inadvisable until after the general elections in June.

ITDG has yet to hold a dissemination workshop in Zimbabwe to further communicate the results and get feedback from a wider range of potential users.

5.3. Collect PAs, PPAs and comparable survey and qualitative data from academic and donor communities and GoZ.

This was done, and the work was useful in developing the researchers' knowledge of the relevant shocks and trends (see Section 3).

5.4. Conduct small 'gap-filling' studies.

This was done in Chivi and Gutu districts in July/August 2000.

The gap-filling exercise focused on the following issues:

- Household decision-making processes, including gender roles in livelihoods
- Cropping strategies

- The role of livestock in coping and accumulation strategies
- The non-farm sector. Including remittances, rural non-farm occupations and local town employment and self-employment
- Common property resource use and management

5.5. Revision of the model.

The model derived from the literature and the dataset was modified in the light of fieldwork findings. The most significant modifications included:

- The existence of a cycle of recovery for some households, access to which was severely constrained for a substantial proportion
- The under-recognised importance of goats and sheep enabling coping with drought as well as recovery from drought
- A clear idea of the 'new' options which could be available to poor households, given existing conditions and with slightly altered conditions

5.6.Sharing the model with stakeholders.

This was done through the August 2000 workshop, but the bulk of the work remains to be done. This will centre on the dissemination event (see below).

5.7.Dissemination of research findings through paper based and electronic media. Drafting of journal article and conference papers, and teaching and training materials.

Dissemination undertaken:

- Kate Bird and Andrew Shepherd *Household Coping Strategies in the Semi-Arid Communal Lands of Zimbabwe – description of livelihood strategies including the determinants of impoverishment and accumulation.* In Improving the Poverty Focus of NRSP Research on Natural Resources, December 2001.
- A paper ("Modelling livelihoods and coping strategies in semi-arid Zimbabwe") presented at the conference of the UK Development Studies Association (November 4, 2000)
- A article in ID21, November 2000
- Responded to request for further information from Alex Turrall (DFID)
- Article in NRSP Research Highlights 1999-2000 'Getting out of poverty' (p 3-5)
- University of Birmingham, International Development Department Research Seminar, February 2001
- Inclusion in teaching materials, MSc in Poverty Reduction and Development Management, University of Birmingham

Dissemination in future will focus on:

- A dissemination workshop to be held by ITDG in Harare.

- Electronic dissemination of the scientific report through existing networks in Zimbabwe
- Inclusion of material from this research in forthcoming *World Development* article in Chronic Poverty in Remote Rural Areas for special issue of *World Development* April 2003.
- *Chronic Poverty in Semi-Arid Zimbabwe*, Chronic Poverty Research Centre, Working Paper, April 2002

6 Contribution of Outputs

The outputs from this research project have an 'interim' character. They constitute a model (a set of inter-connected hypotheses, at this stage) for wider and deeper testing in a further phase of the research.

However, even at this preliminary stage, the outputs are capable of informing

- Development projects focused on enhancing livelihoods in semi-arid areas in Zimbabwe (e.g. those of ITDG, CARE and other NGOs), and
- The selection of research priorities by research organisations in Zimbabwe.

The principal contribution of the model lies in the following testable conclusions:

- Recovery from the 1991-92 drought was difficult for many households in the semi-arid areas.
- Diversification of the livelihoods base within and from agriculture is the predominant strategy for recovery and provides the main pathway out of poverty.
- The constraints bearing down on a majority of households have been sufficient to prevent them diversifying significantly or adopting 'new' livelihoods options.
- Market, research and extension systems have rarely effectively addressed the particular conditions of poor households in semi-arid areas.

It is expected that the thinking of research partners and stakeholders will be influenced through the dissemination workshop, and during the wider testing of the model in the next phase of the research.

6.1 By 2001, in two targeted areas, livelihood strategies and assets comprehensively understood, including inter alia employment opportunities, access to markets structure of market systems.

The research is well on the way to understanding livelihood strategies and assets, employment opportunities and access to markets.

6.2 By 2003, strategies which improve the livelihoods of the poor validated and adopted by target institutions in two countries.

Target institutions have been identified and will be involved in the forthcoming dissemination workshop. A number of these were represented at the workshop held in Harare (August 2000). Others will be invited to the dissemination workshop to be held in the future.

List of Participants in Harare workshop, August 2000.

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7 Communications and materials

A working paper was prepared for the Harare workshop. This has now been incorporated into the full scientific report annexed to the FTR.

The published communications materials are listed above in Section 6.

8 Project Logframe

	Measurable indicators	Means of verification	Important assumptions
GOAL Benefits for poor people in target countries generated by application of new knowledge to natural resource management in semi-arid production systems	By 2005 evidence of the application of research products to benefit target communities by achieving one or more of: - sustainable production increase - less variable production - productivity increase - improved employment (numbers, income, quality) - improved access by poor people to RNR output	DFID commissioned reviews Monitoring against baseline data collated by the programme Reports of in-country institutions National statistics	Enabling environment (policies, institutions, markets, incentives) for widespread adoption of new strategies and practices exists. Climatic conditions are favourable.
PURPOSE Diverse coping strategies for poor rural households in semi-arid systems understood, developed and promoted		Reviews by Programme Manager Reports of research team and collaborating /target institutions.	Target beneficiaries adopt and use strategies and/or approaches. Enabling environment exists.

OUTPUTS Improved understanding of current livelihood strategies of poor people in Zimbabwe's semi-arid areas	Understanding developed from literature and ITDG data set in the UK by end of March 2000. Further developed and gaps filled in Zimbabwe and UK by end of August 2000.	Working paper (summarising literature and data analysis of existing data set, identifying gaps in understanding and outlining model of coping and livelihood strategies) Workshop proceedings. Final technical report, including digestible research report for dissemination. Model will: - distinguish the livelihood strategies of different communities and /or social groups - identify which groups form the true poverty focus of the semi-arid zone - identify researchable constraints on the livelihood options open to those groups - assess the effective demand for new livelihood options Summarised versions of research findings widely disseminated in hard and electronic forms. Article in academic journal. Conference papers Adapted teaching and training schedule.	It is possible to develop a single model representative of Zimbabwe.

ACTIVITIES 1. Review of published and grey literature, and analysis of available raw household study and PRA data to ascertain range of livelihood strategies in Zimbabwe's semi-arid areas. Initial identification of information gaps. 2. Share draft model with target institutions through workshop. (Identification of projects, NGOs, ministries and policy reform exercises in Zimbabwe and the region able to make use of research output.) 3. Collect PAs, PPAs and comparable survey and qualitative data from academic and donor communities and GoZ. 4. Conduct small 'gap-filling' studies. 5. Revision of the model. 6.Sharing the model with stakeholders. 7.Dissemination of research findings through paper based and electronic media. Drafting of journal article and conference papers, and teaching and training materials.	Financial summary: UK Staff £25,790 Zimbabwe Staff £7,560 Travel and Subsistence £4,850 Dissemination £1,800 Total £40,000	Quarterly and milestone reports. Annual report (Feb/March 2000) Working Paper (end March 2000) Workshop proceedings (end May 2000). Quarterly and milestone reports (as scheduled). Final technical report (end August 2000). Publication of journal article(s), dissemination of summary findings by ID21 and appropriate conference fora (following the end of the funding period). Teaching/training materials produced following end of funding period.	Literature is accessible, especially unpublished project reports. Target institutions are able to contribute to research process. Workshop is attended by a wide range of stakeholders. Willingness in academic and donor community to share insights. Communities of primary beneficiaries willing to participate in research exercise. Information is adequate to develop a robust understanding of coping strategies

9 Keywords

Zimbabwe, Sub-Saharan Africa, Southern Africa, coping strategies, vulnerable, HIV/AIDS, assets, capital, sustainable livelihoods, rural areas, semi-arid, migration, remittances, retrenchment, liberalisation, markets, infrastructure, livestock, sustainability, safety nets, social capital, human capital, natural capital, physical capital, financial capital, SMEs, shocks, risk, communal lands, tenure, poverty, poverty reduction, incomes, employment, enterprise, agriculture, policy, enabling environment, capabilities, wildlife, CAMPFIRE