

**IMPLEMENTING A SUSTAINABLE LIVELIHOODS
FRAMEWORK FOR POLICY-DIRECTED RESEARCH:
REFLECTIONS FROM PRACTICE IN MALI**

WORKING PAPER 90

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SUMMARY

This paper has two objectives. The first is to discuss the experience of carrying out research in a village in Mali as part of a multi-country, comparative research programme on the theme of Sustainable Livelihoods. The second is to place that field-level experience in the broader context of the relationship between research and policy, particularly in terms of the exchange and flow of information between different stakeholders in the development policy process.

The process of using the Sustainable Livelihoods framework for planning and implementing an enquiry, and analysing the information this generated, raised a range of questions. On one hand, there were methodological lessons and practical issues: what is the best way to represent complexity? how can the multiple views of different actor groups be incorporated into such a representation? how can such a learning process be effectively managed within the boundaries of available resources? On the other, there were more abstract considerations: what, and who, is this research for? How could this process of research best be transformed into something which usefully serves the needs of the poor, or supports environmentally sustainable practices?

These reflections on how a particular piece of research was carried out resonated with some of the current debates about methodological complementarity, incorporating the needs and perceptions of the poor into anti-poverty policies, and the centrality of institutions, both to livelihoods and policymaking. There is in turn a common thread in many of these debates: how to best occupy the space between top-down and bottom-up, between macro and micro. The framework for research and analysis described here provided opportunities to bridge this gap.

PART ONE:
USING THE SUSTAINABLE LIVELIHOODS FRAMEWORK IN
DALONGUEBOUGOU

A Background: the research framework

The research described here was undertaken as part of the Sustainable Livelihoods Programme¹. It aimed from the outset to provide information to policymakers, both in the countries where the research was carried out and in the transnational donor community. The underlying broad objective was that the research should assist policymakers in making policy which supports those whose livelihoods are least sustainable, in rural parts of Africa and Asia. Through having an explicit focus on the importance of institutions and the composite nature of rural peoples' livelihoods, research was carried out which had an implicit focus on the themes of poverty and environmental sustainability.

The Sustainable Livelihoods framework for analysis shows how, "in different contexts, sustainable livelihoods are achieved through access to a range of livelihood resources (natural, economic, human and social capitals) which are combined in the pursuit of different livelihood strategies (agricultural intensification/extensification, livelihood diversification and migration). Central to the framework is the analysis of the range of formal and informal organisational and institutional factors that influence sustainable livelihood outcomes" (Scoones, 1998:1)

This framework², represented diagrammatically in Figure 1, provided the broad theoretical basis for planning, implementing and analysing concurrent research activities in three countries. It provided the research teams with a broad model for "a holistic and integrated view of the processes by which people achieve (or fail to achieve) sustainable livelihoods" (Scoones 1998:13) By examining each element of the framework through an institutional lens, an emphasis was placed on the way that people secure access to the resources they need to construct a livelihood. By selecting research sites to represent agroecological gradients in each country, an emphasis was placed in comparing livelihoods in different agroecosystems. By seeking sites where some historical data were available, an emphasis was placed on learning from change over time.

Early in the planning process, it became clear that "the type of methods which may be used to answer such questions will necessarily be varied, and best used in combination" (Scoones 1998:13). The research framework and an agreed set of common basic data were considered adequate to ensure thematic comparability between sites. Figure 2 shows how the research framework can be used to generate broad questions and identify a range of methods which can be used to collect data to answer them. The methods which were used in the field were chosen from this range according to the context of each research site.

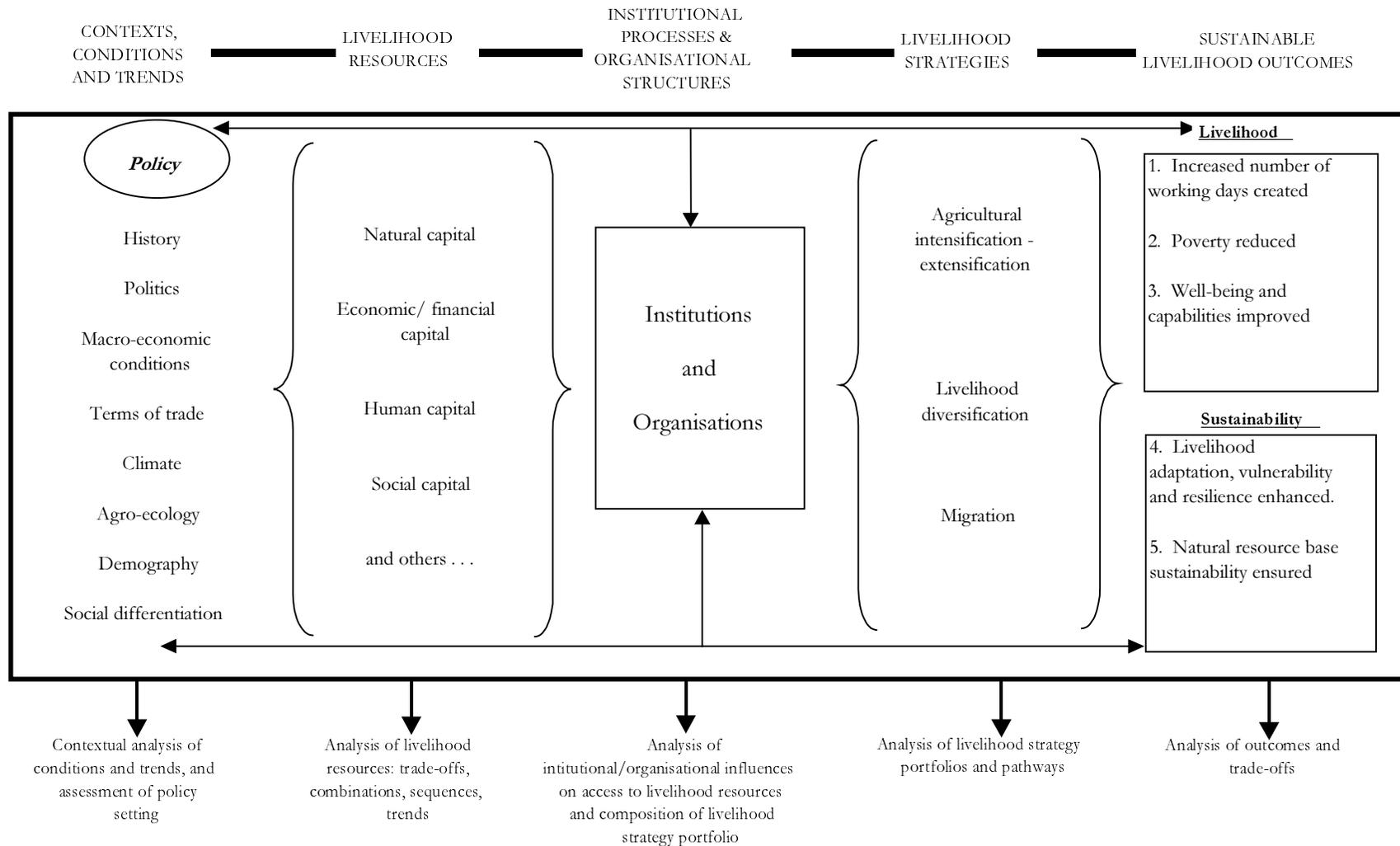
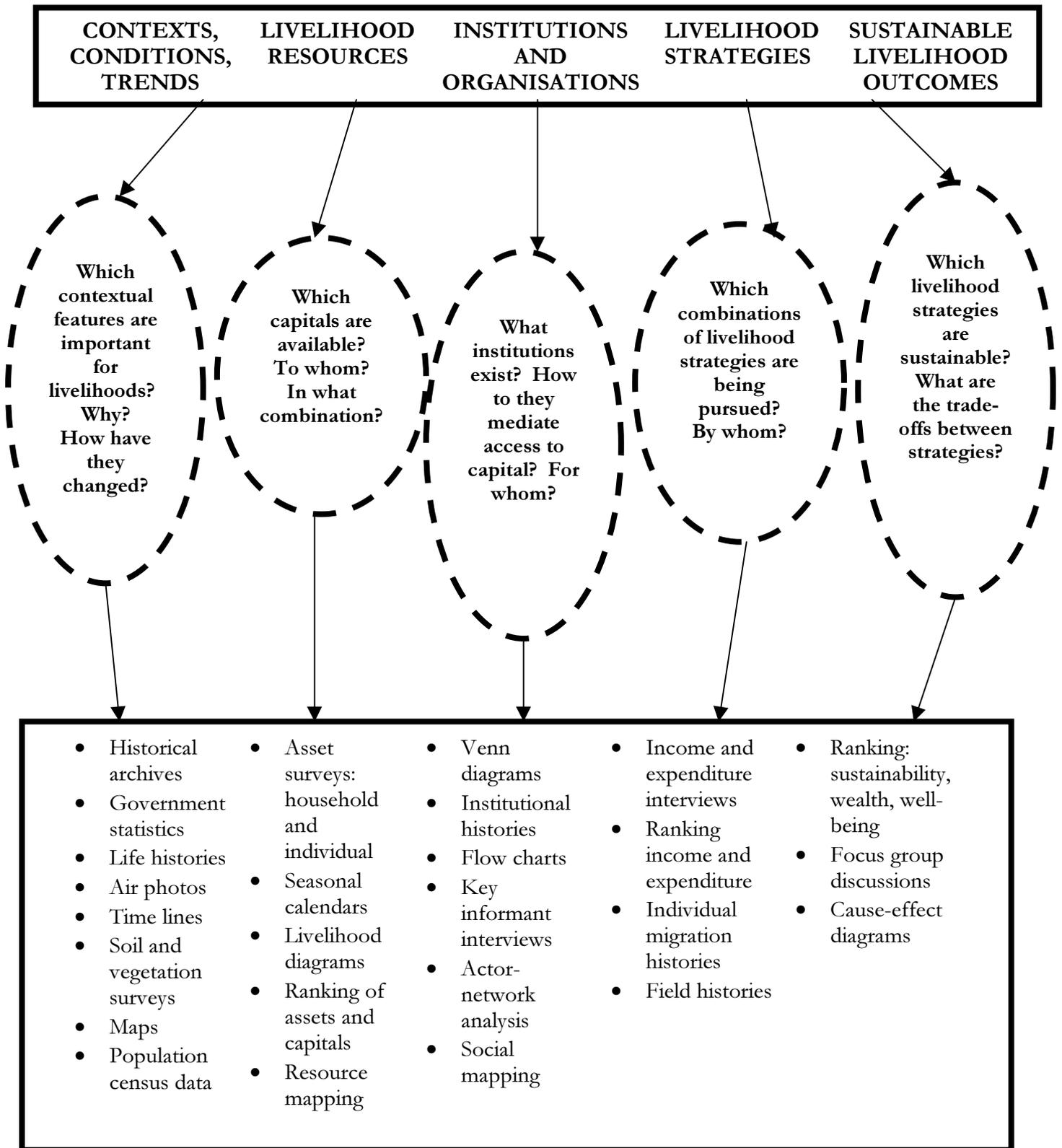


Figure 1: The Sustainable Livelihoods Framework (Scoones 1998:4)

Figure 2: Range of methods to implement a Sustainable Livelihoods framework



B Planning the research: the Dalonguebougou context

In Mali, the research was carried out in two sites: Dalonguebougou and Zaradougou. The sites were chosen to represent two agroecosystems relatively common in the country: Dalonguebougou in the Sahelian millet and livestock area, and Zaradougou in the Soudanian cotton and livestock area (see Brock and Coulibaly, 1999). Carrying out research in Dalonguebougou offered a rare opportunity to update a twenty year old data set: a study of the household economy (Fulton and Toulmin, 1982; Toulmin, 1992) produced a range of data which left us in no doubt about the dynamic nature of both the agroecosystem and the livelihoods it supports.

Dalonguebougou is home to four distinct social groups³. The Bambara, who established a long-term settlement in order to farm millet on sandy soil just over a century ago, are today dominant both politically and numerically. The southern Sahel was on the seasonal route of Maure and Fulani transhumant herders before it was settled for agriculture. A small group of Fulani has lived alongside the Bambara in Dalonguebougou for at least twenty years, employed by the Bambara as hired herders, and given access to small, permanently cultivated village fields as part of their informal herding contracts. Transhumant Maure herders have brought their livestock to find dry-season water at the wells of the village Bambara at least forty years, but many of them have settled in the last 10 years in two hamlets on the far edges of the village land, where they now cultivate millet alongside their customary livestock production. In addition, a group of nearly seven hundred migrant Bambara farmers cultivated a millet crop on village land in 1997/8, returning to their villages of origin for the dry season; some households have been migrating in this way for 15 years. The livelihoods of the village Bambara, the Fulani, the Maure and the migrant Bambara farmers are inextricably related, and the way in which each group gains access to the resources necessary to construct their livelihoods is complex, and sometimes conflictual.

A review of existing data and a Rapid Rural Appraisal exercise were carried out at the start of fieldwork, which allowed identification of important trends and conditions, constraints and limitations and the formulation of key questions and priority areas for enquiry. These are summarised in Box 1, and formed a basis for the remainder of the fieldwork. Establishing contexts, key questions and constraints early in the research process was central to being able to pursue an iterative research process with a combination of methods for the remainder of the fieldwork period.

C The fieldwork process

The framework served as a checklist for data-gathering, a route map for searching for possible linkages between different parts of the livelihood system, and a guide for planning each step of the research. The research process was iterative, and relied heavily on one person being present in the village on a day to day basis to carry out the monitoring and participant observation exercises which formed the foundation of the research.

Box 1: Trends, questions and constraints identified during research planning

Trends and conditions	Key questions	Constraints and limitations to research
<ul style="list-style-type: none"> • continuing low/declining rainfall • increase in total population and changing ethnic balance • wells drying up • expansion of local economy (trade, commerce) • lack of infrastructure • increase in land under cultivation • majority of population in large, complex, multi-generational households 	<ul style="list-style-type: none"> • how is access to land and water mediated? has this changed? • have local institutional configurations changed in response to population change? how? • is agriculture less productive than formerly? for whom? • which people have increased their reliance on non-agricultural livelihoods? why? 	<ul style="list-style-type: none"> • establishing trust with “new” population groups⁴ • lack of time, particularly for collecting agricultural and land use change data • physical isolation of village and poor access • taboo subjects: livestock ownership, ethnic difference, income • large household size makes surveys difficult

The rhythm of the research was that of the agricultural season. We were fortunate to arrive in time to carry out the RRA in the *temps mort*, the ‘dead moment’ of the agricultural season when the millet is ripening in the field and the heavy work of the harvest is not yet under way. Similarly, we were able to plan and test a strategy for updating millet yield data well before the harvest ended, and to establish a migration monitoring system before people began to depart to seek dry season work in other places. The range and sequencing of the methods used is shown in Table 1.

The use of a range of different methods both concurrently and in sequence allowed us to:

- **Start broad and focus in.** The RRA and the subsequent population census allowed us not only to gather basic information in several key areas of the research framework, but to establish priorities for more detailed enquiry. After this initial phase, using a particular method for a finite period of time proved useful in allowing us to focus in on these prioritised themes. Once information had been collected about disaggregated elements of the livelihood system, the research framework proved useful in prompting questions about the linkages between them.
- **Work with tools appropriate to a particular type of information, or social situation.** Starting the research with a short census of assets (including livestock) and population took account of the fact that the village Bambara household heads were very experienced respondents to this form of enquiry, who had largely overcome their suspicions of surveys twenty years before. The benefits of visiting each household in turn accrued not only in the form of data gathered, but in the sense of having adhered to a social ritual of politeness in having introduced ourselves formally to everyone. Gathering similar information with the other three groups in the village was far better suited to semi-structured interviews and group discussions which caused less suspicion and were less likely to be associated with population and tax censuses.

Table 1: Sequence and range of methods used, Dalonguebougou

Phase of process	Tools and sequencing	Duration/timing
End of rainy season	RRA: village natural resource map; focus group discussions with women, older men and younger men about migration, and changes in the last 20 years; transect walks; institutional mapping.	Four days
Start of harvest	<p>Structured survey: Household level population census and assets survey, village Bambara. Used results to select sample of households to represent a range of size and structure, for agricultural data collection</p> <p>Semi-structured interviews: on population, agricultural practices and asset ownership where possible. Covered all Fulani households, each migrant Bambara hamlet (clusters of between two and six households) and representatives of all three Maure lineages (groupings of seven to twelve households)</p> <p>Sustainability Ranking: see Box 2</p>	<p>One week</p> <p>Sporadically, for nine months</p> <p>Sporadically, for nine months. First ranking completed after three months; revised before leaving</p>
During harvest	<p>Well histories: household heads provided histories of each well in the village, including historical and present details of water exchange contracts.</p> <p>Conversations with herders: about herding and terms of water exchange contracts</p> <p>Women's agriculture SSIs: Series of three SSI's with a sample of eight women – crop mixes, yield, soil fertility management strategies, labour use, use of revenue.</p> <p>Migration monitoring: As the first women began to leave to work as harvest workers in other villages, a system of noting incoming and outgoing migrants from each household was established.</p> <p>Personal migration histories: SSI's with men and women across a range of age, to reflect changing patterns of migration</p>	<p>One week</p> <p>Opportunistic & occasional</p> <p>Once a month for three months</p> <p>Each household visited at least once a fortnight for six months</p> <p>As opportunity arose, over six month period</p>
End of harvest	Harvest monitoring and measurement: For the sample of seven households, winnowing and threshing were monitored to estimate quantity of millet paid out as wages before storage. Granaries were then measured as soon as the harvest was stored, to calculate total volume of millet harvested.	Intensive work for about one month, with daily monitoring as winnowing and threshing took place.

Post-harvest dry season	<p>Field measurement: village fields and bush fields of sample households measured with a GPS to estimate area.</p> <p>Field histories: while fields were measured, SSI's established the fertility strategies and cultivation history for each field.</p> <p>Income and expenditure interviews: with thirteen households, estimates of annual expenditure for a range of categories derived from the 1980-2 surveys. Ranking of sources of income in order of importance. Listing of individual sources of revenue by household member.</p>	<p>Intensive work in two ten-day periods</p> <p>Over period of about one month, towards the end of the work</p>
Outside village	<p>Aerial photos: were collected from 1952, 1979, 1982.</p> <p>Interviews: were carried out with key policy actors in Bamako, regional level service providers, and local extension agents.</p> <p>Archival data: were collected from the <i>Archive National du Mali</i>, Bamako and the <i>Archive de l'Office du Niger</i>, Ségou.</p>	<p>About two weeks, spread over the year.</p>

- **Generate and test hypotheses.** During the RRA, young women identified seasonal migration to urban centres to earn cash wages as a major change in their lives, which led us to hypothesise that the role of female migration in the household economy may have altered. In the early 80's and long before, large numbers of young women worked as migrant harvest workers in the local area, being paid in millet but accruing in addition the social capital associated with kinship and marriage networks. Further enquiry, in the form of individual migration histories and household migration monitoring, showed that local harvest worker migration is still the norm, but that in a year when millet prices are low, some women prefer to seek cash wages in towns.
- **Gather information about institutions from many different sources.** Institutions defined in the research framework as “regularised practices or patterns of behaviour, structured by the rules and norms of society, which have widespread use.” (Scoones 1998:12, after Giddens 1979). Gathering data to meet this definition required a circumspect approach. The use of multiple tools generated detailed information about institutions, usually contained in peoples' responses to direct questions on different, usually more tangible, themes. Of the methods listed in Table 1, all except the field size measurement generated information about institutions.
- **Triangulate data gathered, confirming its credibility.** This was of particular importance in trying to understand changing livestock populations and the integration of crops and livestock. Methods used included asking farmers directly about the numbers of animals they owned, asking herders about the numbers of animals they herded⁵, observing herds as they watered at wells and counting smallstock tethering posts.
- **Adapt tools according to our needs.** Understanding the difference between the livelihood strategies of more and less sustainable households was a key element of the research. In order to rank households, we adapted Wealth Ranking to meet the context and needs of the research, as shown in Box 2.

Box 2: Adapting Wealth Ranking to understand sustainability

In the village context, the idea of asking villagers to rank themselves and their neighbours according to criteria which were inevitably related to wealth was felt to be particularly difficult. Bambara culture is one where ostentatious displays of wealth (in particular discussion of size of cattle holdings) are taboo.

As well as gaining an understanding of richer and poorer households, we wanted to understand local perceptions of sustainability. We decided to try a Sustainability Ranking, which was carried out gradually over the entire period of field research. Initially, we took part in very informal, ad-hoc discussions with a range of people about the concept of livelihood sustainability, in order to try and ascertain criteria which were relevant to local people's perceptions. Starter questions for these discussions were "what makes a good (or a bad) life?" and "what makes a household strong over several generations?". The unit of this enquiry was the household; other parts of the research tried to examine intra-household factors of difference.

After several months of occasional discussions, we aggregated the results to identify three criteria which had been most frequently mentioned. These were *gestion*, *main d'oeuvre* and *betail*. *Gestion* refers to the way in which a household is managed, and was consistently felt to be the most important criterion for household sustainability. This reflected a strong feeling that households have mobility in terms of their sustainability: their situation can be improved or upheld through good *gestion* or endangered through bad. *Main d'oeuvre* refers to the household labour force, and encompasses not only its size but also its age and gender balance. A household with a young labour force with more or less evenly balanced gender is held to be more sustainable than one where there are either no children or a large majority of girls or young women. *Betail* refers to livestock holdings, and reflects the importance of animals as assets and as insurance against risk, shock and stress.

Households were then ranked by our research assistant according to these criteria. The ranking was revised before we left. Although the ranking itself was not carried out by villagers, the knowledge of someone who had lived in the village for nearly three years in total⁶ was less contentious and potentially divisive than engaging villagers in classifying their neighbours, when lack of consensus within the Bambara community was becoming an increasingly difficult political issue.

Using a variety of tools in an iterative process of enquiry allowed us to learn about the livelihood system from several perspectives, collect credible data from a range of sources and examine disaggregated elements of the livelihood system with appropriate methods. The process of analysing the data collected in this way in order to make conclusions about the sustainability of livelihoods is described in the following section.

D A case study: water and agropastoral livelihoods

Livelihoods in Dalonguebougou are portfolios of activities and occupations, managed within the complex structure of multi-generational households. Agropastoral activities are however common to all households, and understanding change in agriculture and livestock production was an important central thread of the research⁷. With the different concerns and agropastoral practices of four distinct actor groups to consider, it was also the most complex. Looking in more detail at the process of research into this theme shows how the research framework was put in to action, and highlights key methodological issues.

The research framework offered numerous possible entry points to examining various aspects of agropastoral livelihoods. The entry point we chose was highlighted during the RRA, when a focus group of Bambara men discussed changes to life over the last 20 years. The most important issue they identified was that many of the village wells had less water in them than in the past. Some had dried up completely. We

knew from the previous study that in the early 1980s, digging a well had been the most important investment priority for most village Bambara households. An investment in well-digging was a strategy for improving yield on intensively cultivated village fields: a well attracted visiting herders during the dry season, who exchanged the manure of their animals for water. The issue of water and how people gain access to it thus became an entry point for understanding livelihoods.

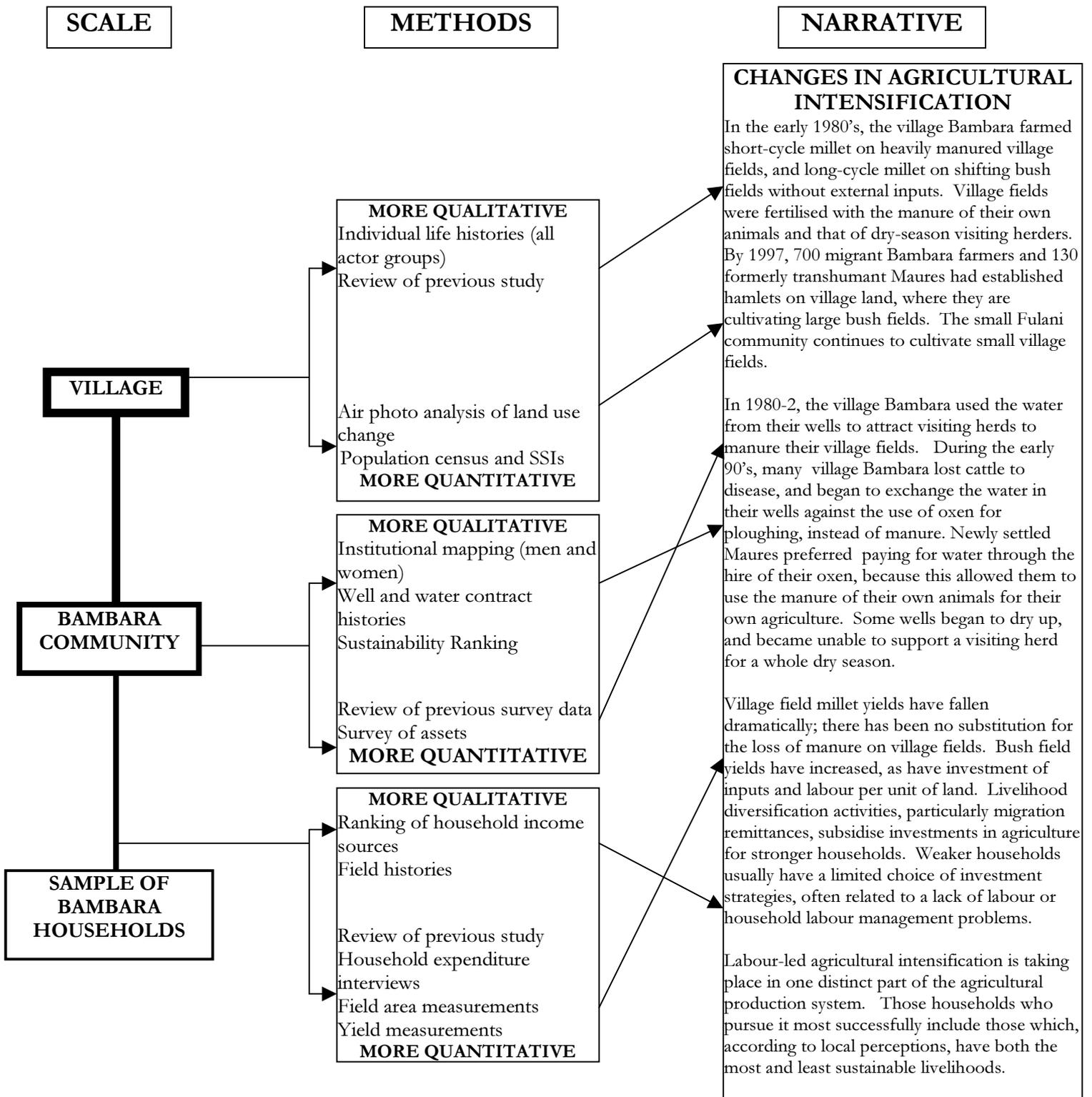
All the methods listed in Table 1 contributed information which added to our understanding of the institutional relationships surrounding water use. This was particularly relevant because of the integrated nature of the research framework: water represented a node in the livelihood system to which most other elements were related. Water is the principal restricting factor in the productivity of the agroecosystem, as well as being the focus of several key local institutions. A brief summary of findings on this theme is presented in Figure 3. Building up a broad picture by mapping the information in this way during fieldwork was a useful tool for discussion, for revisiting the objectives of the study, and for deciding where to focus precise measurement.

Before the field research even began, it was clear that the principles of optimal ignorance and appropriate imprecision⁸ would be important, given the research objectives and the available time and resources. As an image of changing agricultural intensification began to emerge from the detail of interviews about water access, the question of scale arose. It was clearly impossible to gather yield data for all households as the 1980/2 study did, but nonetheless yield would be a key indicator of agricultural change, and so a key element in understanding the sustainability of livelihoods. Figure 3 shows the different scales of data collection, and how the different kinds of information generated were integrated to produce a narrative of change about agricultural intensification.

The narrative shown in Figure 3 illustrates a pattern of change in investment in agriculture which has implications for understanding livelihoods and their sustainability in the village. It summarises how a certain sequence and combination of methods used in conjunction with a holistic research framework can produce an understanding of how access to a key resource is mediated, and locate that understanding in an institutional context. The process of mediating access to resources is central to understanding how livelihoods are constructed, and why some people are able to construct more sustainable livelihoods than others. The sequence and combination of methods used also generated information about whose livelihoods are more or less sustainable. The framework for analysis allowed the results of this enquiry to be combined and sequenced to produce an understanding of how the construction of livelihoods in Dalonguebougou functions as a systemic, dynamic process.

A key issue in evaluating the utility of the research framework and sequence and combination of methods is the trustworthiness and credibility of the information generated. Table 2 summarises the definitions of trustworthiness discussed in an NRI/University of Reading paper on combined qualitative and quantitative methodologies, which contends that “the trustworthiness of information will be greater if quantitative and qualitative approaches to data collection and analysis are combined rather than being used separately” (1998: 6). Applying each of the questions in Table 2 to the Sustainable Livelihoods research in Mali highlights central themes in assessing the trustworthiness and thus the utility of the research.

Figure 3: Scale of data collection and constructing a narrative of change



**Table 2: Definitions of the “trustworthiness” of research findings
(adapted from NRI/University of Reading, 1998)**

“Conventional” scientific term	Explanation	“Participatory research” adapted term
Internal validity	How can we be confident about the “truth” of findings?	Credibility
External validity	Can we apply these findings to other contexts or other groups of people?	Transferability
Reliability	Would the findings be repeated if the enquiry were replicated?	Dependability
Objectivity	Are the findings determined by the subjects and contexts of the enquiry, or the biases and perspectives of the investigators?	Confirmability

The discussion of the sequence and combination of methods used has largely addressed the internal validity/credibility and reliability/dependability elements of Table 2. The extensive use of triangulation and ground truthing gives a high level of confidence that the findings of the research are credible. The opportunity to cross-check and understand general trends which was offered by the existence of previous research gives strength to the reliability/dependability of findings. It is in these two broad areas that the combined methodological approach of the research have added to the quality of its findings.

The question of the external validity of the research is related to the research process rather than to its findings. What the research has shown, not least through its activities in a variety of sites in very different contexts, is that the analytic framework can be usefully applied to different situations and groups of people. Similarly, the general, analytic findings of the research – such as the importance of institutions in mediating access to resources, and the importance of linkages and trade-offs between different strategies in constructing livelihoods – are broadly applicable to many contexts. Specific findings however, such as the exact institutional configurations surrounding access to water in Dalonguebougou, or the benefits of living in a complex, multigenerational household, or changes in millet yield, should only be transposed on to other contexts with extreme caution. In terms of policy implications, this suggests that the work could be most usefully used either to inform a direct intervention in the village itself, or to inform a broad approach to project design and community appraisal, but not as a contribution to describing livelihoods at an aggregate (regional or national) level.

Despite the broad validity of the information generated, the research framework and approach also had disadvantages and weaknesses. Some of the problems that emerged during the process of the enquiry in Dalonguebougou were highly specific to that context, and some more general. These included:

- **Comparability:** The difficulty of achieving comparability, both across the two sites in Mali, and with the sites in Bangladesh and Ethiopia. This is at once a project-specific issue of research management, a

function of three research teams simultaneously producing a large quantity of data, and a broader issue of the value of thematic comparability. This latter issue leads in turn to a question of multi-disciplinarity. The framework, with its characterisation of livelihoods being composed of different types of capital, could have easily lent itself to a research approach which quantifies capitals and analyses them from an economic perspective, to draw conclusions about the economic sustainability of livelihoods. Similarly, the kind of agricultural data generated about a small sample of Bambara households could have been analysed using a soft systems modelling approach, and given a stronger ecological perspective on livelihood sustainability. These potential applications of the research suggest that comparability of themes and research framework does not ensure comparability of analysis and results. This issue could usefully have been given far greater consideration at the pre-fieldwork planning stage.

- **Data management:** A large quantity of detailed and complex data were generated, despite determined attempts to stick to the principle of optimum ignorance. The combination of methods led to the collection of different kinds of data, which required different kinds of analysis, which were hard to coordinate. Post fieldwork analysis was lengthy and outputs have not been timely. For research to be policy-relevant, the length of time needed and methods used for analysis needs to be considered in the context of resource constraints.
- **Ethics:** There is an ethical question about local people giving up large quantities of their valuable time without any remuneration, either direct or downstream.
- **Limitations of extractive research:** The research findings represent a consultation with local people, during which they shared certain aspects of their livelihoods, but where the analysis of this shared information was out of their hands, as is the planning of any action which results from the research process. The use of the Sustainability Ranking is a case in point: the method was adapted from a tool often associated with participatory methodology, but the ranking of local households was not undertaken by local people, for the reasons outlined above. If the tool had been used in a participatory way, local people and researchers would have engaged in a different process of sharing information, almost certainly resulting in a different understanding of the dynamics of sustainable livelihoods. It would also however have required a significantly different research structure and terms of engagement with local people.

The general question raised by these difficulties, given the objectives of the work, is what contribution such understandings and such a framework of analysis have to make to policy which supports those whose livelihoods are least sustainable. At what level could an intervention be made which would have a positive impact on the livelihoods of the poor, either in this context, or in one like it? What kind of intervention would it be? What, if anything, would its relationship be to the framework used for analysis? How would it be designed, managed and monitored? These are big questions, and it is the themes underlying them which will be addressed in Part 2.

PART 2

SUSTAINABLE LIVELIHOODS RESEARCH IN CONTEXT: DIVERSITY, COMPLEXITY AND EFFECTIVE POLICY

A Application of research to policy: bridging the division between micro and macro

The research carried out using the Sustainable Livelihoods framework has given us a strong understanding of the diverse and complex livelihoods of rural people in particular contexts. The broad question that has emerged in the post-fieldwork phase is how such characterisation of diversity and complexity can contribute to effective policy which supports those whose livelihoods are least sustainable. Similar questions have emerged in other, related areas of work, notably the debates surrounding the use of Participatory Poverty Assessments in the elaboration of pro-poor policy, and issues about the complementarity of qualitative and quantitative methods. (Booth,1998; Mosse,1998; Norton, 1998) In many fields, there seems to be a gap between the micro and the macro which is hard to bridge. There is some distance between policy processes which are often based on generalised narratives and prescriptive solutions (cf. Leach and Mearns, 1996) and context-specific research which highlights not generalised facts, but potentially generalisable processes. It is because of this distance that some have argued for the need for a process oriented approach to planning and policy, especially in areas of complexity. (Mosse et al, 1998)

The institutional focus of the Sustainable Livelihoods research was in part an attempt to bridge this gap. Institutions are a common element in any policy process, ranging from the local institutions that mediate which people gain access to what resources, to the macro institutions of State, market and civil society which provide the institutional context in which livelihoods are managed, and succeed or fail. This institutional approach gives a practical advantage when considering policy applications, by identifying those institutions which have a central role in resource allocation, and by identifying those social rules and norms which would have an impact on the outcome of an external intervention. By identifying the diversity of these institutions, policy debates about related issues will have an accurate base in local complexity.

Research results of this kind can also be used to provide signposts for other, similar research, suggesting what kinds of institution might be important in the context of a broad type of agroecosystem. The approach of the research, which suggests the importance to livelihoods of local institutions that traverse conventional sectoral boundaries, is confirmed by the findings. Thus adopting this kind of research process could lead to clearer problem identification and design of interventions in support of those whose livelihoods are less sustainable.

In the context of the question of the distance between research and policy, it is also important to consider who determines research findings. The fieldwork in Mali was carried out with the conscious objective of allowing the voices of villagers to describe their own livelihoods. In this sense the findings are determined by the “subjects” of the research, and were greatly strengthened by the researchers having the opportunity to stay in the village for a lengthy period. This does not however impart any kind of “neutrality”

to the work. Villagers had their own reasons for sharing their voices, and their own objectives in choosing to show and say what they did.

The findings of the research were equally if not more determined by the “outsiders”, and by the policy makers who chose to fund the research in order to generate the kind of information they need to inform policy choices. This is part of the nature of extractive research: the “subjects” have a strong role in determining the findings, but little or no control over the process of the research itself. The analytic framework used a systemic and holistic approach which seemed to the researchers to be an accurate fit to the way that people manage their livelihoods. The research findings must however be recognised as the results of a synergetic process in which the designers of the analytic framework, the researchers and the participating villagers were all stakeholders, with different levels of influence over the research findings at different stages of the process.

If we accept this synergy, what are the implications for the trustworthiness of the findings and their utility for policy? The findings will have passed through several analytic and editorial filters before they are ever read or acted upon by a policymaker. Booth, discussing this filtering process in the context of PPAs, notes

the pressure on writers of country synthesis reports focusing on policy messages to highlight findings that have immediacy for policy-makers...(culminating) in the need for general overviews of PPA findings to demonstrate relevance to the prevailing strategic perspective on poverty reduction, and not put this at risk by inserting more complicated and uncertain messages. These constraints are likely to remain, and need to be taken seriously (1998:14)

Similar pressures exist in presenting the findings of this research. The livelihood system was represented by villagers, and understood by the researchers, as complicated and uncertain. The challenge for the researchers and policymakers remains how best to use this kind of information to inform decisions, and perhaps to plan projects or programmes, when “there has been a tendency...for conventional tools of programme planning and monitoring to...treat projects as closed, controllable and unchanging systems” (Mosse, 1998:5).

The analytic framework, bridging the gaps between villagers and researchers, and researchers and policymakers, offers some ways to resolve this difficulty. First, the conceptualisation of assets as different kinds of capital has, for example, usefully expanded the way that villagers describe important elements of their livelihoods, into the language of policymakers. These terms are particularly useful when emphasising the integral importance of intangible assets (social and political capital) to constructing livelihoods, and to the trade-offs between different capitals and strategies which make this process more or less sustainable. Key aspects of villagers’ livelihoods are thus explicitly “translated” through the research framework.

Second, the framework has a strong focus on the processes of negotiation which take place within local and non-local institutions which mediate access to resources. By highlighting these processes, direct links are made to a parallel understanding of policy as “negotiated between a set of different stakeholders who vary in terms of influence, power, access to information, perspectives and interests” (Norton, 1998:184) Introducing this kind of research, framed in terms of real peoples’ livelihoods and the institutional context in

which they take place, into this process of negotiation could allow debates about sectoral policy issues to be seen in different ways, resulting in new connections and new suggestions for policy being made.

B Application of research to policy: scale and institutions

The institutional focus of the analytic framework allows the findings to be used to locate policy spaces where useful interventions can be made. This involves not only understanding the institutions, organisations, policies and legislation which shape livelihoods, but identifying which of these provide the potential for transforming structures and processes to support livelihoods (Carney, 1998). Table 3 locates Dalonguebougou within its institutional context, by showing which institutions at different levels of activity mediate access to the four capitals which are central to the research framework⁹.

The disaggregation of institutions into different levels provides an opportunity to see where the gaps lie in the institutional configuration of Dalonguebougou. The geographical location of the village – isolated in the dryland cereal production zone – is the most important determinant of the general distribution of these institutions across domains. Donor policy has had a strong influence in targeting scarce resources towards the cotton and irrigated rice sectors, which has left dryland areas poorly served in terms of agricultural extension, credit provision and infrastructure. In reality, although formal institutions exist at the regional and national level to provide services, none of them actually reach Dalonguebougou, which has no school,

Table 3: Key structures and processes for implementing a Sustainable Livelihoods approach to policy, Dalonguebougou

	KEY INSTITUTIONS			
Livelihood resources	Micro: intra-household	Micro: inter-household	Meso and macro: within Mali	Macro: transnational
Natural capital	Relationships differentiated by age, gender, marital status Inheritance	Water exchange and herding contracts “Sponsor” agreements between Bambara and immigrant households Council of Bambara elders Kinship networks	Legal land tenure Extension services Markets for agricultural products and inputs	Donors Lending institutions
Social capital	Relationships differentiated by age, gender, marital status	Age group networks and religious groups		
Human capital	Relationships differentiated by age, gender, marital status	Village development committee Kinship networks	Education and health services	Donors Lending institutions
Financial capital	Relationships differentiated by age, gender, marital status	Kinship networks facilitating migration Trading networks Informal credit	Agricultural credit provision	

accessible health service, extension agent or credit provision. What fertiliser is used, is purchased on the open market; no children go to school and adult illiteracy is 95%; death associated with childbirth and preventable diseases is common. One of the local institutions mediating human capital, the Village Development Committee, was formed in 1998 with the principal objective of funding and managing a small dispensary which it was hoped would eventually employ a nurse. Its ambition to seek external funding is severely hampered by the illiteracy of most of its members.

Despite this bleak picture, micro institutions which function on a day to day basis to mediate access to the combination of resources necessary to maintain the livelihoods of villagers. Many of them – notably inter-household institutions which mediate access to natural resources – have changed considerably to adapt to changing circumstances, natural and social. Others – notably kinship and age-groups – are fundamental in supporting those whose livelihoods are least sustainable.

Through characterising institutions and capitals in this way, it is possible not only to identify the spaces where gaps exist, but to be aware of local institutions in order to avoid damaging them through policy interventions. It is relatively easy for policy-makers to influence or intervene at the level of the formal institutions in Table 3. What is harder is to understand and take into account potential conflicts at the interface between the micro and the macro, and changes that policy might bring to the function of micro institutions.

Entering summaries of the research findings in such a matrix is a useful step in the process of moving from research towards policy. Identifying potential policy spaces and discussing the impact of potential changes however is not adequate: completing the process would also involve a prioritisation of problems and possible action. It is useful to remind ourselves that “policy is more than a set of goals and procedures. It refers in different contexts to the process of allocation of resources; institutional mechanisms and procedures for public and non-governmental institutions; legal and regulatory frameworks applied by the State; issues of access, quality, efficiency and relevance in the delivery of public services” (Norton 1998:179) Policy makers thus are located in a range of situations and have widely variable approaches to policy. In the context of this research, the objectives of policy-makers outside the local area must be more clearly understood, as must and their information needs and the processes of negotiation and transformation of information which result in policy. Policy makers are crucial actors in shaping livelihood outcomes, and should be clearly recognised as such. While the process of policymaking remains as closed as it often is, the utility of providing credible research findings which reflect local complexity may have a limited effect on policy making. Accepting that “implementing the Sustainable Livelihoods approach means changing our thinking about how we conduct development work” (Shaxson, 1999:1) is a positive step towards this critical reflection.

In conclusion, reflecting on the process and findings of the research does reveal some broad areas where a Sustainable Livelihoods approach could have an impact on policy or lead to activities which support those whose livelihoods are least sustainable.

- **Promoting broader understanding of livelihoods as systemic and dynamic:** The framework has provoked wide interest and it is useful tool for facilitating discussion of approaches to development policy. Such discussions themselves can be an important part of the process of recognising the complexity and diversity of livelihoods, and incorporating this recognition into policy.
- **Project design and monitoring:** The Sustainable Livelihoods framework is useful both for understanding a situation and identifying potential for action, and analysing and monitoring activities to understand their impact on livelihoods. This means it is potentially usable at several stages of the project cycle, and the strong emphasis it places on linkages and feedback could provide a mechanism for strengthening those aspects of the project cycle.
- **Participatory action research:** The fieldwork described in Part One was not participatory. Local people did not have control either of the objectives of the research, or of what happened to the information and analysis they generated. The greatest care was taken not to raise expectations about action, and in many senses this limited the research. If there had been an explicit action component, with transparent objectives, a great deal could have been learned about local prioritisation of needs, and the functioning of local institutions in that prioritisation. It would also have provided a chance for local people to have something to show for two lengthy and time-consuming involvements in research, the results of which they cannot read and the effects of which they have not yet felt.

NOTES

- ¹ This paper has benefitted from comments from Ian Scoones and Grace Carswell of the SLP
- ² Since mid-1998, this framework has been used, improved and adapted by those outside the IDS SLP research team (Carney 1998, Shaxton 1999). This paper will however concentrate on the framework as it was employed in the field
- ³ The population of the village in 1997 was 1826 people, comprising 774 village Bambara, 106 Fulani, 136 Maure and 753 migrant Bambara farmers. In addition, there were approximately 60 dry season visitors, transhumant herders and their families
- ⁴ The 1980-2 research was principally based on work with the village Bambara, with whom we had a strong relationship from the outset of the current research. Partly because of this, however, it was difficult to establish trust with other groups
- ⁵ Farmers own animals which are cared for by hired herders. Herders often manage a herd made up of the animals of a number of farmers, and their own animals.
- ⁶ Our research assistant, Sidiki Diarra, lived in the village for 2 years (1980-2) and nine months (1997-8). He carried out much of the research described in this paper.
- ⁷ A second and equally important thread was that which looked at livelihood diversification (including migration).
- ⁸ “Not finding out more than is needed, not measuring more accurately than needed, and not trying to measure what does not need to be measured” Chambers, 1999:7
- ⁹ The Dalonguebougou research combined the categories of physical and natural capital referred to in Carney (1998:7) because the majority of infrastructure and physical assets are directly derived from natural resource stocks.

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SUSTAINABLE LIVELIHOODS RESEARCH PROGRAMME (SLP)

This research project is exploring alternative routes to sustainable livelihoods for poor people in contrasting agro-ecological settings. The research asks two questions: an analytic one - what institutional arrangements enable some poor people to achieve secure, sustainable livelihoods, when others fail?; and a practical one - what policies can support both groups?

The work focuses on the institutional arrangements which allow people to achieve sustainable livelihoods, or otherwise. We understand institutions in a very broad sense to mean the regularised practices or patterns of behaviour structured by rules which have widespread use in society; such institutions may be formal or informal. Such institutions mediate a range of livelihood processes in rural areas. We are focusing on four, related, processes: agricultural intensification, crop-livestock integration, livelihood diversification, and migration.

These livelihood processes will be investigated in four case study countries - Bangladesh, Ethiopia, Mali and Zimbabwe - with research sites located along agro-ecological gradients from high to low natural resource endowment and differing livelihood systems. In each country we work closely with local researchers and officials. The work started in 1997 and will continue to 1999.

The Sustainable Livelihood Programme is funded principally through grants from the Department for International Development (DFID) through the Economic and Social Research Council (ESCOR) and the Natural Resources Institute (NRI).

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