Indicating the exit: towards an holistic framework for monitoring agricultural research.

Louise Shaxson
Freelance consultant/Department for International Development.
94 Victoria Street, London SW1E 5JL, UK.
Tel: 44 171 917 0217 Fax: 44 171 917 0249
email: l-shaxson@dfid.gov.uk

Abstract

In another paper at this workshop, Diana Carney discusses the new, holistic approaches to poverty reduction, and the role of agricultural research. This paper draws directly on her conclusions to examine implications for monitoring and impact assessment activities in agricultural research programmes. Although 'traditional' impact assessment techniques based on economic efficiency are necessary for examining the effect of agricultural research on poverty, they are by no means sufficient – particularly as our understanding of poverty broadens to incorporate intersectoral issues, micro-meso-macro links, the effects of institutional failure and the need to negotiate indicators of impact. Economic efficiency can tell us <u>where</u> to invest, but does not help us decide <u>how</u> to invest in agricultural research. Adopting a livelihoods approach to poverty means changing the way in which agricultural research is implemented and monitored, and this paper suggests how this can be achieved.

Running title: Indicating the exit.

Comments on previous drafts are gratefully acknowledged from James Garrett (IFPRI), John Soussan (Leeds Environment Centre), Steve Wiggins (University of Reading), and Paul Harding & John Tarbit (DFID).

Introduction

The emergence of a new paradigm generally causes several years of confusion in research organisations, as research managers struggle to determine the implications for their own work programmes. The new and holistic approaches to poverty reduction are no exception, particularly since the results of participatory poverty assessments continually underscore the complex and dynamic nature of poverty, the importance of institutions as rules-of-the-game as well as organisations, and the impossibility of encapsulating poverty in a single measurement. But whereas cutting-edge research is being done on what constitutes poverty, on how to describe a livelihood, and on where poverty can be addressed through agricultural research projects and programmes; less attention is being paid to how research managers should change the ways in which they plan, implement and monitor these new approaches.

This paper begins to develop a framework for understanding the links between agricultural research and poverty reduction in order to improve intersectoral collaboration, increase feedback between researchers and linking institutions,

and strengthen the ongoing need for accountability with a better understanding of the decision-making processes involved.

Though written from the point of view of a donor, there are generic lessons for other research managers in both international and national research organisations. It is often difficult for individual researchers to see how their monitoring activities fit into the whole picture. Whilst few of the observations made here could constitute an innovative approach to monitoring and impact assessment, putting them within an holistic framework does help synthesise some of the issues, and should offer research managers at all levels a systematic way of setting their individual activities in the wider context.

How should the new approaches to poverty reduction affect research monitoring?

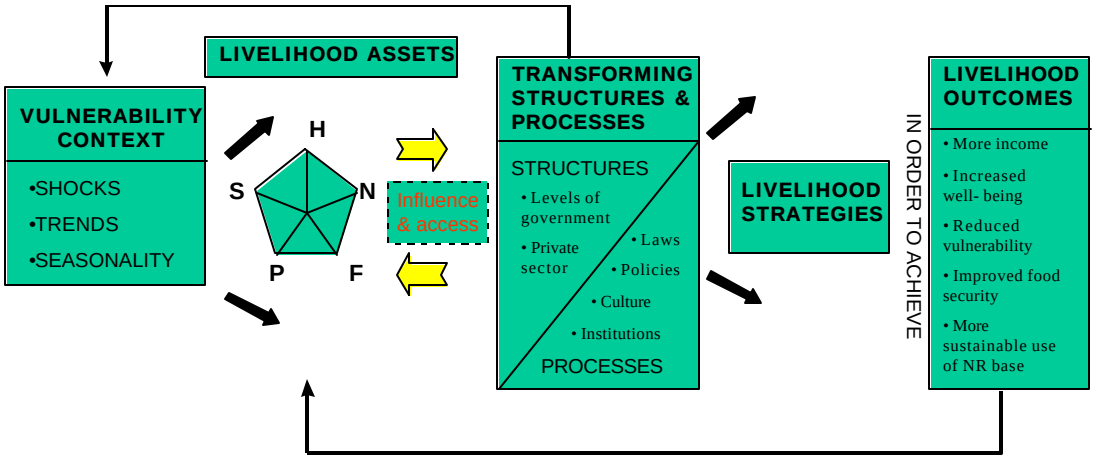
Our understanding of poverty has changed considerably over the past few years. The development of new techniques has meant that we are able to understand, in far more detail, the different types of poverty faced by different groups of people at different times in their lives. New and holistic approaches to poverty reduction are being adopted which embrace this understanding – DFID, UNDP, Oxfam and CARE are among some of the organisations which are explicitly trying to complement the traditional income- and consumption-based measures of poverty with appreciation of the importance of the other parts of people's livelihoods (DFID 1997, UNDP 1999). Carney (1999) concludes that agricultural

research does have a role to play in these new approaches to poverty reduction, but that a whole new set of challenges need to be met before researchers and research decision-makers can clearly show the links between the nuts and bolts of agricultural research and poverty reduction.

For the purposes of this paper, the main points to note about the new approaches to poverty reduction are the following. First, poverty is a process as well as a state. Processes of impoverishment "are highly dynamic and definitions of poverty shift, not only from place to place but from individual to individual and over time." (Carney 1999, p.2). Second, it is often difficult to distinguish between the causes and manifestations of poverty – indeed in some cases they may be one and the same in a vicious circle – and any tools we use to monitor progress towards poverty reduction through agricultural research must be able to take this into account. Third, a better understanding of the links between the different types of poverty that affect individuals and communities mean that it is becoming increasingly difficult to satisfy ourselves that a sectoral route to poverty reduction is going to work. Fourth, linking the micro, meso and macro levels is important if we are to paint a clearer picture of the different types of influence on livelihood strategies. Finally, recognition that the processes of poverty reduction are characterised by conflict and trade-offs (over time and space; and between individuals, households and communities) means that negotiation must become a central tenet of research planning and monitoring.

The Sustainable Livelihoods framework adopted by DFID (see Figure 1) encapsulates these points. It is beyond the scope of this paper to discuss the framework in detail, and the reader is referred to Carney, 1998 and 1999.

Figure 1. DFID's Sustainable Livelihoods Framework.



H = human capial (skills, knowledge, ability to labour, good health).
P = physical capital (transport, shelter, water, energy, communications)
N = natural capital (land, water, wildlife, biodiversity, environmental resources)
S = social capital (networks, membership of groups, relationships of trust, access to wider institutions of society)
F = financial capital (savings, available credit, remittances, pensions).

See Carney 1998 for a fuller discussion of the different types of capital asset.

Developing a new conceptual framework for addressing poverty reduction does not mean that we need to develop new techniques for monitoring and evaluating agricultural research programmes. We need to optimise the framework that informs our approach before concluding that we need to construct new tools. As Akroyd & Duncan (in Carney 1998, p.28) point out, "it would be a mistake to conclude (as occurred fatally with integrated rural development projects) that, because the nature of SRLs[1] is cross-sectoral, special cross-sectoral instruments must be devised as the main means of promoting them. Adopting new forms of SRL-specific instruments runs the risk of (i) undermining necessary policy and institutional reforms; and (ii) causing SRL-promoting measures to be

marginalised in terms of mainstream development". In addition, the reaction of research managers to the imposition of a new set of monitoring tools needs to be taken into account: we are more likely to encourage adoption of modified techniques than ones developed from scratch.

The next section briefly discusses the limitations of existing impact assessment techniques in the context of the sustainable livelihoods approach. Two studies from the grey literature are then cited: one which assesses the implications of adopting the sustainable livelihoods framework for monitoring and evaluation, and one which looks at how to assess the impact of policy research[2]. Observations from these studies are then combined to develop a framework which sets both impact assessment and monitoring in the context of a holistic understanding of the links between short-term, micro-level approaches to implementing agricultural research projects and the long-term, macro-level implications for poverty reduction.

Impact assessment: some brief comments

Traditional methods of assessing the poverty impact of agricultural research are well embedded in the neoclassical paradigm, generally using partial equilibrium analysis to study the causal links between a series of states[3]. Alston, Norton & Pardey; and Alston, Pardey & Roseboom's work has shown that by studying the rates of return to investment in agricultural research we can identify sectoral opportunities for improving benefits to different groups of people, and can

identify some of the economic efficiencies that could be gained from adopting one or other organisational structure. Using this information, we can identify better financing arrangements for global agricultural research, and can understand the implications of weakened government support and the efficiency gains from improving collaboration with the private sector. Alston *et al.* (1998) conclude that "…the management of R&D can be improved by substituting economic incentives for central directions, by applying economic efficiency as the objective of research, and by using more competition rather that committees to allocate resources" (p.1068).

What are the implications of substituting 'poverty reduction' for 'economic efficiency'? Of course economic efficiency must remain as one of the central objectives of publicly-funded agricultural research – for financial accountability to funding agencies as much as anything – and indeed should be one of the guiding principles when deciding where to invest. But there are two points to make. First, an holistic approach to poverty reduction requires that we also look for guiding principles in different areas – poverty of voice simply cannot be addressed by improving economic efficiency. As Guijt (p.8) notes in a different but related context, "sustainable agriculture is much more than only developing a technological innovation. It includes creating new organisational alliances and new forms of communicating with widely different groups to increase the scale of impact of these innovations. As the task of creating sustainable agriculture has social, institutional, and policy-related aspects, several objectives can, and in

many cases should, be monitored simultaneously". The same applies to poverty reduction.

Second, Alston *et al.*'s work does not tell us how to invest. Although the techniques themselves can cope with dynamism, the sole use of economic efficiency is a static approach. Assessing rates of return will give us certain information under fixed conditions. But management and institutional settings will change those conditions, and thus change the rates of return. It is entirely likely that institutions (both as organisations and as rules-of-the-game) are implicitly setting some of the parameters that are used to assess rates of return – and understanding more about the processes involved will help us work out how and why these parameters (and thus investment efficiencies) will change over time. Adopting the sustainable livelihoods approach means acknowledging the enormous level of institutional failure that exists and that conditions the impact of agricultural research.

In a review of the implications of adopting the Sustainable Livelihoods framework, Ticehurst & Cameron examined a wide range of donor experiences of monitoring and evaluation and came to the following conclusions (pp.13-14):

- "measurement tools that reflect a synthesis of the SL approach and its anticipated impacts are undeveloped; and developing a composite index of sustainable livelihoods may still not provide the necessary information.

- “there are processes prior to impact itself that are often not observed, yet are critical for donors and their partners to learn.
- “targets established for impact indicators are often premature and reflect impatience.
- “involving in-country partners not only in developing indicators but also in data collection, management and use is key as they and their institutions will outlive most donor programmes.
- “counts or measures are used by some donors to enable aggregate analysis of their performance and impact, yet they appear divorced from any planning or evaluation framework.
- “the technical challenges surrounding performance measurement and impact assessment are surpassed only by resolving the organisational problems of putting the same information to effective management use. In other words, the challenges to M&E are not merely methodological”.

Although not directed at reviewing the sustainable livelihoods framework, a study by IFPRI of the impact of policy research raises similar issues, and helps strengthen the criticism of economic efficiency as the only principle for assessing the impact of the sustainable livelihoods approach.

Garrett & Islam reviewed IFPRI’s experience of assessing the impact of policy research and point out (p.2) that “even before asking *how* to measure impact, we must determine *what* impact we are measuring. ‘Impact’ of… research can occur at different points in the (decision-making) process, with each requiring a

unique means of measurement. For example, do we evaluate the format and quality of the information IFPRI produces (*output*), or how IFPRI provides information to policymakers and whether that actually influences policy choice (*process*), or whether the policies pursued by a government to which IFPRI provides information actually reduce food insecurity, malnutrition and poverty (*outcomes*)?… The term 'impact assessment' conveys an impression that we intend to evaluate the effect of a clearly identifiable action on a clearly defined target. This 'problem solving' model of policymaking and research use implies that if a report is not read and the policy not immediately changed, the research was not useful and had no impact. This perspective assumes that each instance of information use is a discrete event for which there is a well-defined problem and solution (Feldman, 1989)[4]" (their emphases). Discrete impacts are not usual, and impact happens at different points in the process, and in different ways for different reasons. These are important points, and relate to all agricultural research if 'decision-makers' is substituted for 'policy-makers'.

An alternative framework for monitoring agricultural research

Combining the observations made in the previous section helps develop a framework for examining how we invest in agricultural research while heeding Akroyd & Duncan's warnings about the futility of developing new tools. Modifying the IFPRI notation and using the Sustainable Livelihoods approach in Figure 1 as the basis for analysis, we adopt an approach to research programme

management that we can divide into four parts: *Outputs, Processes, Effects & Impacts* (see Fig. 2).

Outputs are the immediate products of agricultural research projects and programmes: the papers, manuals, workshops, policy advice and technologies with which we are all familiar, and the technical quality of which we are fairly well able to judge. The direct *effects* of their use will be seen in the ways that they change people's livelihood strategies: adoption rates for new technologies or effective coverage of a targeted policy recommendation are measurable in the fairly short term, and could be combined to give an indication of the immediate usefulness of the 'deliverables' of a research project or programme.

But an holistic approach to poverty reduction demands a longer-term view of the cumulative *impacts* on livelihood outcomes, which we can begin to measure using combinations of indicators of (for example) income, well-being, vulnerability, social inclusion and food security. Whereas the links between *outputs* and direct *effects* might be relatively clear in that they will generally be seen at micro and meso levels, the links between direct *effects* and longer-term *impacts* become increasingly cloudy

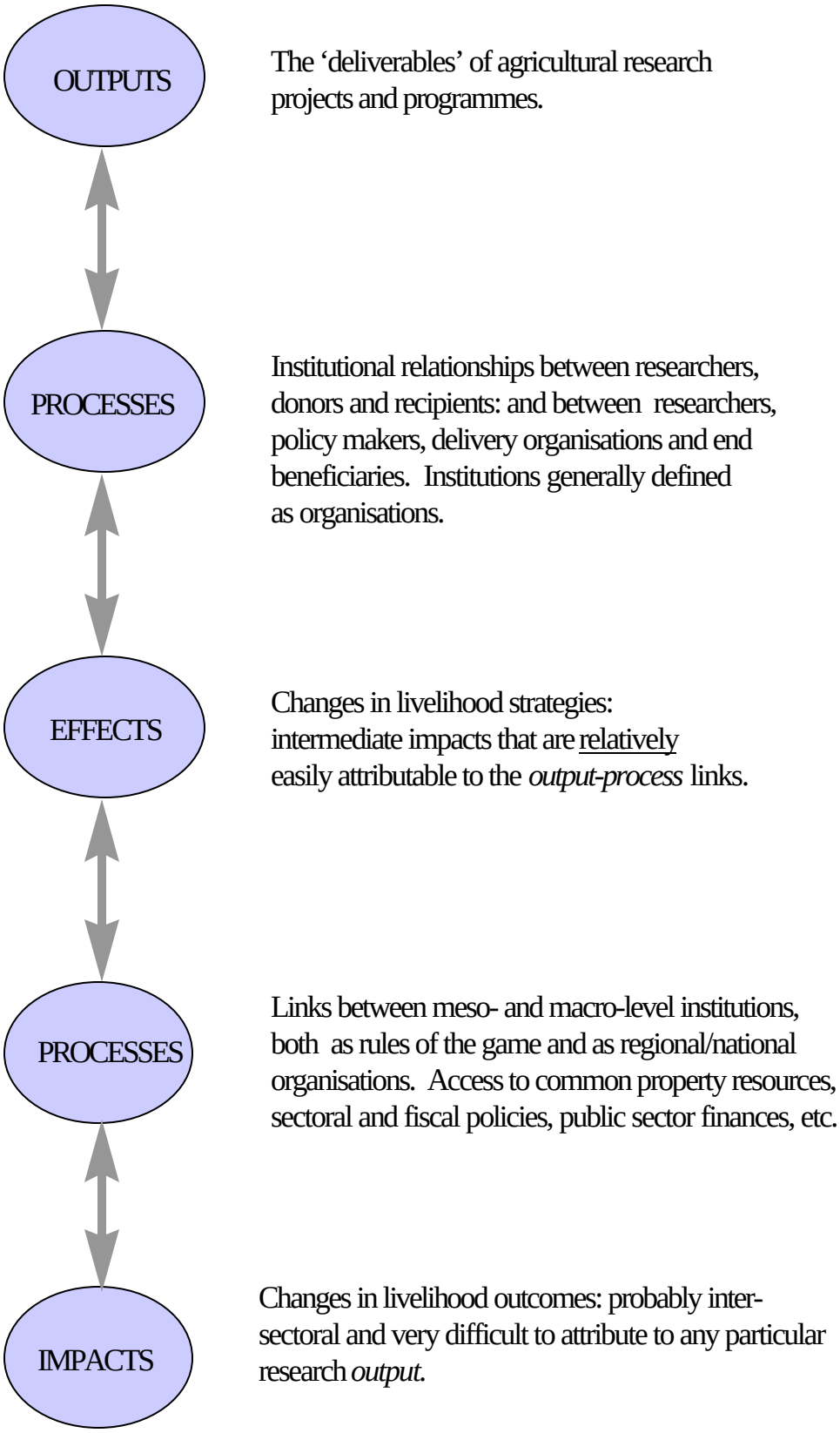


Figure 2: The Output-Process-Effect-Process-Impact monitoring chain.

Cox *et al.* note that it is difficult to ensure that the poor directly capture the effects of agricultural research. Putting this observation in context, it is impossible to think through the relationship between *output* and *effect*, or between *effect* and *impact*, without considering the *processes* that at least filter, and at most obstruct or change the ways in which the results of agricultural research affect people's livelihoods. Placing greater emphasis on understanding (and potentially modifying) the *processes* will give us a clearer picture of how to incorporate the results of SL impact assessments into future research: and thus give us clues to how we – individually and as organisations – need to change the way we work in order to improve the outcomes we are looking for[5].

The concept of *process* is fairly nebulous, but essentially encompasses the context that needs to be considered and managed in order to improve the likelihood that the results of SL-focused programmes and projects are themselves sustainable. And understanding and managing *process* is key: if policy advice to a government is based on complex analyses, which for whatever reason cannot be replicated after the end of the project or programme, then that advice may well be unsustainable in terms of forming the basis for future decisions (see Box 1)

Box 1: An unsustainable *process*: rice policy changes in Vietnam.

Ryan (1999) describes in detail the results of an internal assessment conducted by IFPRI to evaluate the impact of its policy advice to the Ministry

of Agriculture and Rural Development in Vietnam through an ADB-funded project lasting from 1995 to 1997. This took a structure, conduct and performance approach to analysing the rice market: both to describe the characteristics of the marketing channels and to construct a spatial equilibrium model (VASEM) to examine the options for policy reform to improve the way the rice market functioned.

Ryan points out (pp.19-20) that "it is clear that the IFPRI study is perceived as providing original insights into the rice sector in Vietnam…. The study 'changed the nature of the dialogue in Vietnam…. There was strong agreement that the IFPRI study had an influence on the decisions about relaxing rice export quotas…. No one claimed that IFPRI was the sole influence on these policy changes but rather that it was a key strategic input into a policy process which involved many actors and vested interests…. IFPRI's independence and the quality of its research and extensive communications facilitated the arrival of consensus on these policy issues". Although he estimates that the policy changes were neutral in their effects on the numbers below the poverty line for Vietnam, in terms of the economic impact of policy changes he estimates a cost-benefit ratio of between 56 and 114 to one.

He notes that "the influence of the research occurred well prior to the formal publications arising from the study. It was the result of effective oral communication of research results and advocacy of policy changes to

disparate audiences to subjected them to peer scrutiny." But he also makes the following, telling comments, which I use here to exemplify the word *process*. "While IFPRI was conducting the study… the capacity of MARD to undertake policy analysis was strengthened but it has not been a lasting impact…. It seems no institution or individual is currently able to run the VASEM and only one or two had ever tried". Decisions being taken on rice policy are thus not based on an updated VASEM. In terms of assessing the impact of the discrete project this is neither here nor there, but does it compromise future impact assessments of research in Vietnam's rice sector? Although other agencies have been informed by the research, although a number of MSc students have used the IFPRI data, and although the level of debate in Vietnam has been raised, the fact remains that the *processes* of policy dialogue were unsustainable after the end of the project, and that at the time of Ryan's assessment, the VASEM model remained 'on the shelf'. Granted, political commitment to its operation may have changed over time, but the sense is there that had a sustainable *process* been put in place to maintain and enhance VASEM as a decision-making tool, subsequent policy changes might have been better informed.

This is by no means a criticism of IFPRI's considerable achievement, but points out how a failure of *process*, while not necessarily influencing immediate *effects*, can surely compromise the achievement of sustainable *impacts.*

If a system is left in place which supports the future use of those analyses such that any further decisions are based on comparable information; then the decision-making processes become less haphazard, better informed, and more competent at pushing through policies that are based more on clear concepts and less on political and institutional manoeuvring.

So before new technology or policy advice is able to influence people's livelihood strategies, we must make sure that the *processes* are appropriate by asking:

- How have the institutional and political relationships between donor, researcher and recipient organisations been arranged so that the outputs of agricultural research have the greatest chance of influencing decisions?
- How has the information, technique or technology been supplied to the decision makers in the various institutions (local, regional, national) with which we are collaborating or which we are targeting?

Putting the Output-Process-Effect-Process-Impact chain into practice

There are many points along this chain that can (and should) be monitored (see Fig. 3). The technical quality of the *outputs* can be assessed to ensure that it is convincing to peers who might need to replicate the work elsewhere (see Norrish *et al.*, forthcoming, for a discussion of the necessary characteristics of research for communication purposes). Local ownership of decision-making could be used to indicate the sustainability of the local *processes.* Impact assessments, as currently undertaken, would be used to look at the *effects*, though as the SL

approach encourages, (traditional) cost- benefit analyses would need to be complemented by assessments from other disciplines. Policy analysis would monitor the meso-macro- *processes*: in the context of decentralisation, for example, negotiated indicators of transparency and accountability could be used. It is unlikely that econometric analyses alone could assess *impacts* on livelihood outcomes given the problems of attribution years after the event, and participatory poverty assessments would be needed to complement statistical work.

But it is not only the 'boxes' in Figure 3 that can be monitored: the arrows represent the parts of the chain that are not often explicitly incorporated into our assessments of the impacts of agricultural research. The relationship between *outputs* and *process* is the communication issue: ensuring that the right individuals are being targeted in the right institutions with a demand-led communication strategy (see Norrish *et al.)*. Understanding the nature of the *processes* improves our understanding of the types of message that will influence them, and the media needed to carry the messages.

The link between *process* and direct *effects* is the institutional policies and programming decisions within organisations that condition the way that the *outputs* are delivered to the end users. And linking *effects* to *impacts* are the meso-macro *processes*: the policy and public expenditure decisions across all sectors that determine how people's livelihood strategies (intentions) are translated into livelihood outcomes.

There are two ways we can use this chain: to improve intersectoral links and to strengthen the project-programme-strategy logic. Both are connected, and involve working backwards from *impacts* to *outputs*.

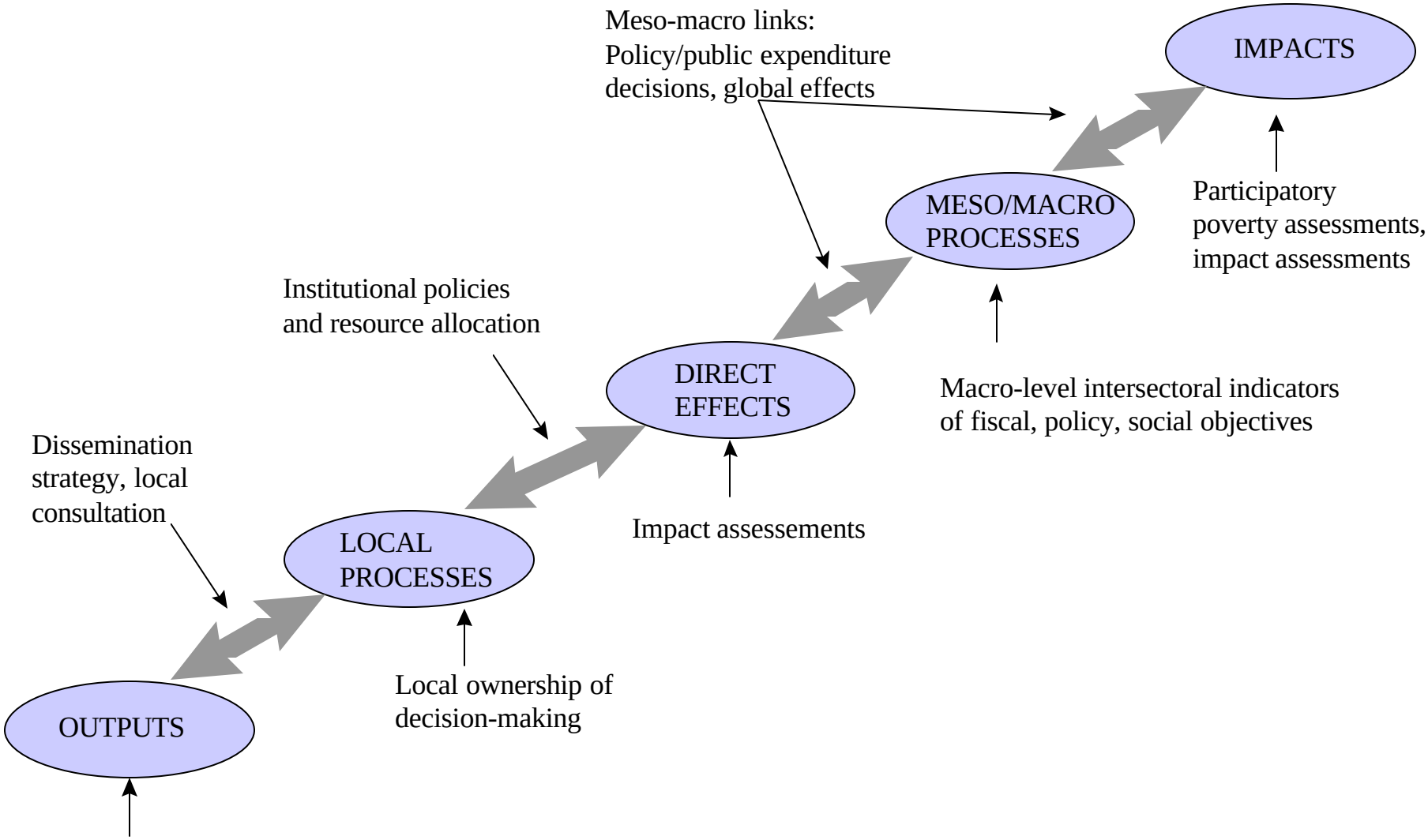


Figure 3: Putting the Output-Process-Effect-Process-Impact chain into practice.

Impacts in the form of livelihood outcomes are not sectoral: adoption of an agricultural technology may alter gender relations in a household to such an extent that the (generally low) nutritional status of girls rises. While this cannot always be foreseen, it is important that we are able to take advantage of the intersectoral implications for monitoring, and to work out with the organisations responsible for health issues how to translate this into measurable *effects*. We know enough about the likely forward and backward links in agriculture, and the links to other sectors of the economy, that we could take a shrewd guess at the organisational and institutional *processes* that should be involved in monitoring the progress of a project or programme. To some extent this does already occur, but in most cases it is not explicit. If it is not explicit we cannot monitor it, and if we cannot monitor it we cannot be sure that the processes which would support this collaboration are sustainable. And understanding the characteristics of the *processes* means that we are better placed to determine the types and the scheduling of the *outputs* they need to influence their decisions (see Ryan's comments on the timing of IFPRI's contributions to decision-making, in Box 1).

Improving intersectoral collaboration: the 'entry point' approach.

How can the framework be used to help improve intersectoral collaboration? In the face of this welter of information, tools are needed to help draw out manageable research options from the complexity of the Sustainable Livelihoods approach. It is bad enough analysing agricultural research alone

through the livelihoods lens – how are we to incorporate research results from other sectors?

In a study of sustainable livelihoods in Mali, Brock (p.11) conducted her analysis through "…understanding…the institutional relationships surrounding water use… 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." Analogous to this 'node' approach, DFID is working with the idea of 'entry points' for livelihoods projects and programmes: issues which have forwards and backwards links to other parts of the same-sector economy, but which are also linked to different sectors within the local economy. The choice of entry point depends to a certain extent on whether the links are manageable within the umbrella of a research project of programme. For example although agricultural research has clear forward and backwards links to other activities in the food chain, the intersectoral links are at present rather forced. 'Food' would be a better entry point, as other institutions (transport, health & nutrition) could also claim it as a sectoral focus. Water, transport, energy and institutional change could also be used as the entry points for livelihoods projects and programmes – it is difficult to conceive of a livelihoods project around water that would not involve to different degrees engineers, farmers and fisherfolk, water quality specialists, water consumer groups, health experts (diarrhoea, malaria, bilharzia) and industry.

Developing an exit strategy

The experience of integrated rural development has left people worried that a livelihoods approach means attempting to developing cross-sectoral indicators so that everything can be monitored, all at once. This is by no means so – and the monitoring framework outlined above could be used to help a very sectoral project or programme develop a livelihoods approach. An initial livelihoods assessment is an enormously complex task: Brock's analysis in Mali used twenty-six different techniques over the course of a year, to collect the information (p.5). This was expensive, but did allow her to:

- start with a broad remit and then focus in on issues and links
- work with tools appropriate to a particular type of information or social situation
- generate and test hypotheses (participatory approaches require as much analytical rigour as 'traditional' methods)
- gather information about institutions from many sources
- triangulate data, confirming its credibility
- adapt tools according to needs.

Adopting the sustainable livelihoods framework means changing our behaviour, both as individuals and as organisations. To date this has only really been thought through at the planning stage: little emphasis has been given to the changes that need to be made within the implementing institutions and their collaborators – as changing the management processes may well affect

decisions taken about where to invest scarce agricultural research resources. The *output-process-effect-process-impact* approach to monitoring, particularly the emphasis on mediating *processes* at micro and meso/macro levels, will be important in implementing the SL approach for programmes and strategies.

Brock's points about focusing and adapting tools can be made at all levels, not just for project activities. As with all research, it is important to start out with an idea of what the project is likely to achieve, though this can be modified in light of new information or changing institutional set-ups. This principle could be adopted by programmes as well –assessing what is likely to be achieved could be done by negotiating at the outset (with collaborators at all levels), an exit strategy for the end of a programme.

This involves working backwards through the monitoring chain, from the start of a programme or project. At all levels and with all potential collaborators, we need to negotiate indicators of desirable *impacts*, the meso- and macro- *processes* which condition the *impacts* on livelihood strategies that we can expect to see in the long-term, and the intermediate and direct *effects* that will be necessary to achieve those *impacts*. We also need to establish what are the more local *processes* that will deliver those direct *effects*, and the *outputs* are most appropriate to the *processes.* Should the local *processes* change in order to deliver the direct *effects*? Can policy advice change the macro *processes* to improve conditions for delivery of long-term *impacts*? Can the ways in which research *outputs* are delivered change the nature of the local *processes*?

Answering these questions will help decide on the numbers and types of indicator that will be needed by different people at different times during a research project's or programme's life.

Conclusions

Negotiating the indicators of a sustainable exit strategy from the outset of a livelihoods programme will help us be more realistic about what can be accomplished; often in a very short time frame. It will help to establish relationships between institutions from the various sectors that are likely to remain involved. And negotiating the collection and management of indicators will help rationalise the proliferation of data that is apparently (but not actually) demanded by the livelihoods approach. As with Brock's analysis, the key is flexibility – although financing considerations may drive the type and extent of initial involvement by particular institutions, the door must be left open for people and institutions to move into and out of the monitoring chain in response to external influences. Guijt (p.9) notes that "the challenge of successful monitoring system lies in designing a system of information collection, analysis and use that is systematic, valid and relevant. This task will require several rounds of trial and error and continual adaptation" (emphasis added).

Part of this flexibility may involve moving away from the micro-management approach that tends to be taken in agricultural research. Devolution of accountability demands devolution of responsibility – if the *processes* are locally owned and more or less sustainable in terms of both financing and institutional

commitment to a common goal, then research programme managers have less of a need to monitor the detail of the impact that is being achieved. As noted above, traditional *ex post* impact assessments will continue to be essential to demonstrate financial accountability and economic efficiency – but need to be complemented with the results of other analyses. Simply disaggregating indicators from programmes down to projects can be self-defeating, as the tail of the indicator will wag the dog of choice of project.

Although accumulation of micro-detail is appropriate at the project level, as we move 'upwards' through research programmes and strategies we need a set of indicators that assess the *processes* through which people make choices. Adopting the sustainable livelihoods framework means that research managers must judiciously interpret when to monitor the detail, and when to step back from the data and allow local processes to take over.

References

Abbot, J. and Guijt, I. (1998) Changing Views on Change: Participatory Approaches to Monitoring the Environment. *SARL Discussion Paper No. 2*, July 1998. London: IIED.

Alston, J.M., Pardey, P.G. and Roseboom, J. (1998) Financing Agricultural Research: International Investment Patterns and Policy Perspectives. *World Development* Vol. 26, NO. 6, pp.1057-1071.

Alston, J.M., Norton, G.W., and Pardey, P.G. (1995) *Science Under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting.* Cornell University Press, Ithaca.

Brock, K., 1999. "Implementing a Sustainable Livelihoods Framework for Policy-Directed Research: Reflections from Practice in Mali". *IDS Working Paper 90* (June 1999). Brighton: Institute of Development Studies.

Carney, D (ed.) 1998 *Sustainable Rural Livelihoods: What Contribution Can We Make?* Papers presented at the Department for International Development's Natural Resources Advisers' Conference, July 1998. London: Department for International Development.

Carney, D., 1999 *Holistic Approaches to Poverty Reduction: Where Does Agricultural Research Fit In?* Paper prepared for the International Workshop on Assessing the Impact of Agricultural Research on Poverty Alleviation. IICA, San José, Costa Rica. 14-16 September 1999.

Cox, A., Farrington, J. and Gilling, J. (1998) Reaching the Poor? Developing a Poverty Screen for Agricultural Research Proposals. *ODI Working Paper No. 112*, November 1998. London: Overseas Development Institute.

Department for International Development (1997) Eliminating World Poverty: A Challenge for the 21st Century. White Paper on International Development. London: HMSO.

Feldman, M. (1989) *Order Without Design: Information Production and Policy Making.* Stanford: Stanford University Press.

Garrett, J. L., and Islam, Y. (1997) Use of Information and the Policy Process: Towards an Impact Assessment of IFPRI's Research Activities. *Outreach Division Discussion Paper No. 18*. Washington, D.C.:. International Food Policy Research Institute.

Guijt, I. (1998) Participatory monitoring and impact assessment of sustainable agriculture initiatives. *SARL Discussion Paper No. 1* July 1998. London: IIED.

Norrish, P., Lloyd-Morgan, K. and Myers, M. (forthcoming) Improving Communication Strategies for the Promotion and Dissemination of NR Research. *Socio-Economic Methodologies for Natural Resources Research. Best Practice Guidelines.* Chatham, UK: Natural Resources Institute.

Ryan, G. (1998) Assessing the Impact of Rice Policy Changes in Vietnam and the Role of Policy Research. *Impact Assessment Discussion Paper No. 8*. Washington, D.C.: International Food Policy Research Institute.

Saywell, D. and Cotton, C. (1999) *Spreading the Word…?: Practical Guidelines for Research Dissemination Strategies.* Interim report of DFID ENGKAR project No. R7127. London: Department for International Development.

Ticehurst, D & Cameron, C (1998**)** *Review of current status of impact monitoring systems for rural development & rural livelihood programmes*. Final report, August 1998. Chatham: Natural Resources Institute.

UNDP (undated) *Indicators of Sustainable Livelihoods: A Preliminary Workshop Report*. UNDP Draft Paper prepared for the Workshop on Indicators of Sustainable Livelihoods. New York, August 21, 1997.

[1] Sustainable Rural Livelihoods.

[2] Note the important distinction between monitoring and evaluation/impact assessment: "evaluation is ultimately about judging a situation and the merit or worth of an intervention…. Monitoring is about collecting information regularly that might feed into an evaluation, but is not necessarily focused on reaching a conclusion about the overall effectiveness and direction of a

programme" (Abbot & Guijt, p.13). 'Evaluation' and 'impact assessment' are used interchangeably in this paper.

[3] Though of course dynamic modelling is an important tool, impact assessments tend to be *ex post* static analyses.

[4] In contrast, Saywell & Cotton (p.14) cite Crossthwaite & Curtice's (unreferenced) typology of four dissemination models -- the *rational* model, where making information available is sufficient for it to be incorporated into policy-making; the *limestone* model, where research findings infiltrate policy making in the same way as water gradually trickles through porous rock; the *gadfly* model, where feedback meetings are held with a variety of advisory groups, media and funders; and the *insider* model, where researchers exploit links, and adapt the presentation of their findings, to specific audiences.

[5] The CIAL approach being taken by CIAT is an apparently successful attempt to foster sustainable *processes*.