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Towards Evaluation Of Success In Natural Resource Management Projects In the Sahel

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This paper is a working document prepared for the Sahel Unit of the International Union for the Conservation of Nature. It represents the first stage in a discussion process aimed at a clearer understanding of how to achieve better resource management in the Sahel. The Sahel Unit would welcome comments from our readers on issues raised by this paper.

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1. Introduction

Following many years of development projects run by NGOs, international and national organisations in the Sahel, it has become clear that rather few of them manage to meet their objectives or to prove of lasting benefit either to the local communities where they undertook their interventions or to the country as a whole. Many different reasons have been put forward to explain the variability of project results, most of which deal with specific cases. There is now more general concern for developing the structures and modus operandi best suited to running successful projects in the field.

This paper initially sought to examine what research should be undertaken to analyse the components of successful resource management projects in sahelian Africa. Features common to all could then form the basis of an approach which built on previous successes.

However as investigations continued it became clear that there exists already a considerable body of literature on this subject (OXFAM, USAID, IIED, CARE and Ground-up as well as books by Harrison (1987) and Chambers (1983)). It was also clear that the appraisal of existing projects must examine the criteria on which their success or failure are to be determined. This paper will therefore address the issue of whether resource management projects can be evaluated, and the potential conflicts between different yardsticks for evaluation, before analysing the guidelines for successful projects set up by other investigators. In conclusion it will examine whether or not, once these two stages have been completed, successful project structures can be replicated elsewhere.

2. How to evaluate successful projects ?

Before looking at the common features of projects considered to be successful, it is worth looking at the criteria by which such success is assessed.

Projects in rural areas are faced with four different groups of people who do not necessary share the same criteria for evaluating a project's success or failure. The first are the villagers whom the project is trying, in the long or short term, to help. Their input is essential, and their priorities are often immediate, so they must be able to see immediate benefits. Local government has a set of development objectives which often include national strategies with a top-down approach or more strategic ambitions concerning their relationships with the rural people they administer. National government has a further set of priorities. Finally, the executing agency and its donors have a set of criteria for defining whether a project should be funded and what constitute acceptable objectives and achievements. When

these groups come to assess a project, their opinions are most likely going to differ significantly.

The evaluation teams whose job it is to decide whether a project is successful or not, are generally composed of elements of all these groups, except the most concerned, the villagers. A whirlwind tour of several days, is all that is allowed for outside experts to learn the complexities of the area and assess progress against objectives. Where tangible measurements have not been made, the team's opinions must be based on subjective points of view from local officials, project staff and villagers (if the latter have not already been intimidated by convoys of landrovers sweeping into isolated project sites).

Harrison (1987) made his own decisions concerning whether or not the projects which he examined were successful. Such projects had been going for at least two years, had acheived their targets, offered attractive economic rates of return, improved longterm productivity and reduced poverty while proving sustainable in the long term. It would have been interesting if he could have supplied the data concerning these variables for each project. Certainly some are available, but as usual they concern easily measurable variables such as yields, % marketed, areas planted etc, which, as we shall see below, are not always appropriate to resource management projects.

However it is often not the evaluation teams themselves who proclaim the success of a project (in fact they may find them a disaster according to their own criteria) but a network of visitors who feel, through discussions with project staff, that certain principles of resource management or rural development, which they think are important, are being respected and that the approach stands a chance of succeeding. In no time at all, a project is considered, by consensus, to be successful or at least on the right lines. Harrison acknowledges that in many cases, consensus among these informal evaluators is the main yardstick for success.

For projects with easily definable outputs (wells, roads, hospitals, numbers of people vaccinated), evaluation of their success or failure is relatively straightforward, but for the assessment of resource management projects with fairly nebulous objectives of improvement and better management, what does this mean in concrete terms ? Some discussion of this question is relevant to trying to draw up project implementation guidelines because part of a project's structure or time must be allocated to seeking to monitor the success or failure of the project's activities.

Where natural resources are concerned, there is a genuine dilemma when trying to assess whether resources are being optimally exploited. There is little concrete methodology yet for measuring resource management and its effectiveness. Most approaches begin from the standpoint that natural resources are

in decline largely due to abusive exploitation. This is caused in large part by the difficulties of defining and measuring fluctuations in natural productivity due to drought, and the complex links with exploitation patterns.(However, this attitude has a knock-on effect, as described by Swift (1988) who points out that as long as rural people are thought to be actively destroying their environment then more draconian interventions (such as bans on grazing over large areas) will increasingly be seen to be acceptable. This will prevent projects from working effectively with villagers to resolve their problems).

Management schemes must be socially, economically and ecologically stable or they will collapse. If existing systems are collapsing it is due to a number of extrinsic forces which push people to exploit their environment in certain ways. That current practices exist and are to a large extent maintained is because they are the global expression of individuals satisfying, or attempting to satisfy, the multiple constraints under which they find themselves.

Successful projects have succeeded in removing or decreasing one or several of these constraints until a new socio-economic/ecological equilibrium point is reached. The constraints controlling resource use will vary according to the local situation, but they will probably be of an ecological, social and political nature.

The dilemma faced by most project managers is in not knowing at the outset where the other equilibrium points in the system are to be found. They are therefore obliged to proceed using rule-of-thumb guidelines, some of which are quantifiable (from research results) others derived from gut feelings, still others simply dogma.

However there is no guarantee that new equilibrium points will be found during the life of the project, or indeed that the project will ever know when it has found one. Such things only become clear with hindsight. (This process is a familiar one to all observers of Chancellors of the Exchequer and Finance Ministers trying to keep European economies on a steady course).

Project planning has to take into account the fact that it may not know with any certainty when it has achieved its aims. The critical test, that of time and sustainability, will always be before them.

All ecological systems contain a set of critical points which control the fundamental parameters of population dynamics (births and deaths). People exploiting such a system must take care to maintain this ratio on a long term basis or they set the population into decline. To establish whether or not they are doing this at a single point in time in the field is extremely difficult. It is often only obvious retrospectively that the

resource base is declining. In the case of common resources or common land it is then hard to resolve who or what was primarily responsible for the decline, particularly during periods of fluctuation in weather patterns. Such fluctuations may also occur during the life of a project. The question can then legitimately be raised of whether the observed changes in the natural resources or people's welfare would have been more extreme in the project's absence. Such analysis may show projects to be successful even with a negative balance sheet.

A particularly crucial question that projects will have to consider is the relative weight to be given to the well being of the environment and the well being of the people.The two are inextricably linked, but they will undoubtedly have several equilibrium points between which managers will have to choose.

If the argument is made solely in terms of the standing crop of a particular resource which is available for measurement, this would infer that a protected area with flourishing grassland and woodland is a great success despite being a disaster for the quality of life of rural people. Equally, mining of natural resources for short term economic gain may create a short period of economic wellbeing, but which will prove unsustainable.

Measuring resource management is a difficult business which makes the external evaluation of projects which try to balance the twin interests of peoples livelihoods and maintaining natural resources a particularly contentious task. In the next section, despite the problems of resolving the different viewpoints of separate interest groups, some general guidelines and criteria which have been developed from projects considered to be successful will be discussed.

3. Suggested guidelines for judging project success

It is evident from the available literature that very few organisations, if any, have really come to grips with the thorny task of evaluating results of projects intervening in natural resource management.

The oft-quoted successful projects are still generally those of the something from nothing type where there are tangible, often visible but certainly measurable products; eg. x hectares of newly dyked millet fields (Yatenga, Burkina; Reij 1987), y Km of new windbreaks (Maggia Valley Niger; Jensen 1987), construction of village schools, dispensary or cooperatives (Tin Aicha Mali; Chambers 1987). Very few projects have come to grips with how to assess changes in existing exploitation systems.

Traditional management systems are generally extremely complicated and very flexible, with few hard and fast rules about who does what, when and where. Nevertheless it is up to individual projects to devise the basis on which their

interventions will be judged.

The following ideas, drawn from a variety of sources and experiences, are worth considering as a future way out of the measurement dilemma, not because they are universally applicable or exclusive, but because they could form a framework to examine the effects of a project's intervention on the ground. Doubtless there will be others, and it will be upto individual projects to determine which are most appropriate and to develop new ideas and approaches.

It should be noted that they all require a within-project monitoring system and that none can be easily assessed by outside visiting experts on a one-off basis.

Has there been any net migration (in or out) of the project area as a result of its activities ?

How have access rights changed with the intervention ? Have rights for the poor been maintained ?

Who has gained and who has lost in broad terms ?

What constraints (ecological, socioeconomic, political) have been removed or improved ?

Where in the new equilibrium management state will the greatest pressure come from to revert to the old system? Has this pressure been countered ?

Are the project's activities, particularly changes in rights, fully supported by Government ?

How have stocks of resources (or other parameters of population dynamics, eg age structure) improved during the life of the project ?

If regeneration of resources has occurred what steps have been taken to ensure that the factors which caused their disappearance will not recur ?

What indices are available to show that people have benefitted ?

Has productivity improved, both biologically and in an economic sense?

It is evident from the topics broached above that research and monitoring must remain a major component of projects even during an implementation phase. The success or failure of the project can then be judged on the results of its own research.

This project approach may be inherently unacceptable to National Governments as there is little potential for independent

assessment and evaluation of project activities, particularly if the project adopts a flexible approach and the goalposts keep moving. Evaluators may feel this situation makes the project both gamekeeper and poacher, but the nature of a projects interventions is probably too complex to measure on a one-off basis. There is therefore a still greater need for discussion, collaboration and government approval as the objectives of a project evolve.

4. Project Implementation Strategies

Accepting the difficulties involved in determining whether or not projects have been successful, a number of analyses have been carried out on projects generally considered to have succeeded and these have formed the basis for guidelines as to how best to implement projects in the field. Naturally the details will differ according to local circumstances, but in all cases authors have tried to isolate the principal components of the successful approach.

Vonk (1987) describes four basic types of project implementation approach ranging from, bottom-up planning through to the blueprint approach of many large donor agencies, including cost-benefit analyses. The following discussion assumes that the case for what Vonk calls an experimental/adaptive intervention approach has already been argued and won, and that this is the framework within which we shall work.

Some authors promote a systems approach (eg. Conway 1985) to examine how agroecosystems function and seek to identify how their major components (productivity, stability, sustainability and equitability) interact to produce trends in land use. The analytical procedure assumes that the basic functioning of an agroecosystem requires intimate knowledge of a few key functional relationships. Improving these vital relationships can form the basis for overall improvement in the system.

Conway further argues that system components can be broken down to isolate the decision making structures which influence resource use. Description of the agroecosystem (system hierarchies and system boundaries) allows bottlenecks and pathways to be identified which can then be researched and improved on by local workshops.

A good researcher will end up with all the elements of this structure anyway during the course of his research. However Conway's conceptual approach helps to formalise the description of the system which is useful as long as it is considered as a tool rather than an endpoint.

Chambers (1983, 1987) is more concerned with results on the ground and his analysis of successful projects comes up with five complementary elements essential in project design and approach:-

1. A learning process approach (flexibility). The ability to recognise, embrace and learn from error and failure, and even to change objectives are the key to success.

2. Putting peoples priorities first. Providing for peoples perceived needs gives a project an enthusiastic impetus through self-interest of participating villagers.

3. Secure rights and gains. Because much of natural resource management looks at long term gains, some guarantee of a return on investment (money or labour) is essential. Secure rights may be communal or private.

4. Sustainability through self-help. Outside subsidies (eg food-for-work) may induce people to work for things they do not necessarily want. However, unless they are particularly innovative and adventurous, villagers often have to see success achieved before incentive-free self-help becomes widespread.

5. Staff calibre, commitment and continuity. Dedication, determination, self-sacrifice are all essential components for success, as well as involvement of staff over long periods of time. Long term involvement facilitates development of the learning approach and mistakes are not repeated.

Chambers (1987) makes a further important point by stressing the need to identify those areas with large gaps between potential and performance. Projects should find relatively easy self-help, low cost ways in which these gaps could be closed. This approach mirrors that of identifying bottlenecks but includes the concept of a closable gap rather than simply problem-identification.

In his book, Putting the Last First he further emphasises the need for improvisation and inventiveness, that projects should be able to react rapidly to Govt policy and that they should seek to attain the correct mix of research, monitoring, action, increasing awareness and villager involvement while remaining open to the unexpected. Roche (1987) supports the principles of villager participation and flexibility while adding interproject coordination.

Reij (1987), the manager of the Yatenga PAF project in Burkina, identifies the successful structure of his project as a complex blend of components including :

a) local and national politics
b) expatriate and local staff
c) local ecological, edaphic and population factors
d) project structure
e) project approach

It is worth noting that, of these, only d and e (and with difficulty, b) are variables which can be manipulated by project managers or project designers.

Table 1. Keys to success - A checklist of best practice

Costs to beneficiaries	-	nil or low cost low labour input at crucial crop periods no increase in exposure to climatic risks
Benefits	-	financial rate of return > 50% pay back period of one year or less reduced exposure to climatic risk
Easy, local maintenance	-	low import content high content of local materials low skill requirements of maintenance
Easy to disseminate	-	nationwide network with mass contacts pyramid training emphasis on education and awareness
Strong local participation	-	in design (research, surveys) in execution (concrete help to villagers) in management and evaluation
Learning process approach	-	regular feedback flexibility pilot projects to perfect approaches
Political backing	-	verbal and symbolic resources and manpower policy environment (prices, land tenure) consistency of government
Donor backing	-	ten year horizon payment of local and recurrent costs consistency of goals coordination with other donors commitment to improve national capacity subcontracting to voluntary organisations

After Harrison (1987)

As a result of researches for his book, Harrison (1987) also proposes a list of keys for success- a checklist of best practice (Table 1), although many of his proposals are more relevant to agricultural or technical projects rather than management of existing resources, an area where his list has some notable absences.

5. Conclusion

When examining the history of implementation-evaluation procedures for resource management projects, several things become clear.

The first is that, although there may be a number of elements of the approach which should be stressed in the project design phase there are a significant number of imponderables to make any project go off the rails during its lifetime. By adopting the main lessons from other projects, managers may go 70% of the way to success, however the other 30% required will be dependent on factors over which noone has any influence.

The second is that successful projects can only be replicated in areas which share common characteristics. Harrison (1987) asks why innovations dont spread faster than they do, citing language and physical boundaries as potential barriers. However, he accepts, correctly, that innovations are only sustainable under particular, socioeconomic, ecological and political circumstances and that these are necessary prerequisites for that success story to take root.

The third reflection is that the science of measuring or evaluating resource management projects is in its infancy. The classic procedure is still to compare achievements with objectives with few people asking whether or not independent criteria exist which could be useful. The result is that projects are successful because they have been successful in achieving their objectives, which may or may not have been adequately formulated.

In this search for features common to all such projects there seems to be only one quoted example of projects conforming to the successful approach which has been found to have failed. This may seem like a contradiction in terms. However Reij (1987) cites a project in Mauretania which was closely modelled on his success story in Yatenga but where results were disappointing. This failure was put down to differences in soils, topography and population density (none of which, unfortunately can be controlled by projects). An interesting conclusion must be that this particular project was not flexible enough and did not meet people's needs. Flexibility was thought to be a key element in project success, yet by attempting to replicate the Yatenga project in Mauretania, this precondition was not met. Therefore it failed. Replicability seems to be second only to project evaluation as a breeding ground for fallacious and tautological argument and analysis.

There is no doubt much to be learned from how other projects have approached similar problems but there is no evidence to suggest that projects can succeed in a mechanistic way once the key to their essential components is discovered.

Bibliography

Chambers R (1983) Putting the last first. Longman, London 246pp

Chambers R (1987) Sustainable rural livelihoods: A key strategy for people, environment and development. IIED conference on sustainable development. April 1987

Conway (1985) Agroecosystem analysis. Agricultural Administration 20, pp 31-55.

Harrison P (1987) The greening of Africa. Paladin, London 380pp.

Jensen O B (1987) Rehabilitation in the sahel : The Maggia valley experience. A way forward or a blind alley ? in Practical methods for community land management in African drylands,CARE Norge and NORAGRIC,Oslo.

Reij C (1987) The agro-forestry project in Burkina Faso: An analysis of popular participation in soil and water conservation. IIRD conference ibid.

Roche C (1987) Participation in project design - case studies from West Africa. in Practical methods for community land management in African drylands,CARE Norge and NORAGRIC,Oslo.

Swift J (1988) Avid land case studies. Harumata (IIRD) No 1., p9.

Vonk (1987) The rural development development cycle. in Practical methods for community land management in African drylands,CARE Norge and NORAGRIC,Oslo.

Also

USAID (1988) Oppurtunities for sustained development. Successful Natural resource management in the Sahel. Vols 1,2 and3.

OXFAM (1987) Arid lands management. Workshop at Cotonou, March 1987.

Ground-up (1988) Project proposal to IUCN.