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Linking PRA to policy: the conflict analysis framework

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• Introduction

This article outlines a new technique which we hope contributes to a 'basket' of approaches designed to link PRA to policy. The technique is the *Conflict Analysis Framework*. It was piloted with communities in two Game Management Areas in Zambia in December 1995¹. The PRA team comprised experienced facilitators, and extension workers from the government wildlife authority and an NGO (WWF-BWP). This article describes the technique and some of the lessons learned from the case-studies.

An important issue is how to meaningfully link the information gained through participatory analysis with local people, with the actual process of policy formulation. Three problems stand out:

- the danger of local values and perceptions becoming distorted when PRA facilitators 'interpret' the information for policy-makers;
- the lack of residual benefit for the participating communities, i.e. PRA delivering 'information extraction' rather

than direct benefits to local people in the form of problem solving or empowerment; and,

- the logistical, cultural and political difficulties of physically bringing local people round the policy formulation table.

A means is therefore needed to: faithfully represent the views of local people within the policy formulation process and provide some immediate and tangible benefits to the community participants. The Conflict Analysis Framework seeks to meet these objectives.

• The conflict analysis framework

The Conflict Analysis Framework aims to promote a systematic and participatory analysis of the use of resources by local people. The results are summarised in a matrix (Table 1). The principles lying behind the analysis, and the design of the summary matrix, are based on ideas drawn from conflict resolution and environmental impact assessment.

The tool was developed to aid sustainable resource management in protected areas. However, it holds potential to help link PRA to policy formulation wherever the policy in question aims to address issues of conflict over finite resources. Thus it might equally apply to new policy on the use of infrastructure (e.g. transport, electricity etc.) or to improving access to education and health services.

Goal

The Conflict Analysis Framework was used for policy formulation for protected areas. The overall goal was to devise a means to

¹ The pilots were undertaken at the invitation of the World Wide Fund for Nature (WWF) Zambia County Office, the WWF Bangweulu Wetlands Project (BWP) in north-east Zambia and the Zambian National Parks and Wildlife Service. The technique was developed to facilitate community involvement in the formulation of resource policies and related management plans for Game Management Areas (GMAs) across Zambia. GMAs are areas that support natural resources important to both wildlife conservation and the livelihoods of local people.

summarise the conflicts that local people perceive to exist between their use of natural resources (wildlife, fish, water, timber, fertile land, fuelwood etc.) and the use of these resources by other external stakeholders (e.g. government conservation authorities, tourist and safari operators, forestry and water resource departments, district council etc.).

Table 1 shows an extract from one of the summary matrices generated in the Zambia pilot studies. The exploded cell demonstrates the importance of providing a full, and where possible quantified, explanation of the conflict or concern (see below).

The first column in the matrix summarises the principal livelihood activities of local people. The second, those natural resources important to each activity. PRA techniques useful in completing this analysis include historical profiles, time trends, transects, resource village maps, institutional Venn diagrams, daily routine and seasonal calendars. Information about the timing, location and users of resources are documented separately.

To bring the community perspectives alongside those of external stakeholders, it is necessary to precede the PRA fieldwork with an early and separate institutional stakeholder assessment. This is the idea of combining PRA (essentially an assessment internal to a community) with an external assessment of the conservation, economic and political forces acting upon the resource base of local people (see Warner 1995 in *PLA Notes* 23). Where external conflicts concern resources that are also the root of community perceived conflicts, the issue is entered into the matrix in the third column.

Conflicts and concerns

Conflict resolution emphasises the need to find 'common ground' to build consensus between stakeholders. Thus, the fourth column in the matrix records not only community-perceived conflicts, but also 'concerns'. 'Concerns' are resource issues of importance to local people, but which are not the cause of direct conflict with external stakeholders. Examples might include contaminated drinking water or local labour shortages.

The importance of analysing 'concerns' is to provide the policy formulation process with additional options. In its simplest terms, this takes the form of introducing additional bargaining chips to the policy formulation process.

For example, a programme of well construction could be initiated in return for local people restraining from wildlife hunting. However, experience has shown that such unrelated arrangements are invariably unsustainable. It is better practice to develop implementation programmes that are clearly associated with the proposed policy. An example would be creating an administrative structure to deliver a policy of wildlife protection, based on safari hunting revenues being paid directly into the hands of those attracted to poaching (e.g. the Zimbabwe CAMPFIRE programme).

Prioritising

The final column of the matrix prioritises the community's resource conflicts and concerns. Drawing on the discipline of environmental impact assessment, each conflict/concern is divided into its 'magnitude' and 'importance'. The 'magnitude' of the conflict is a percentage figure in the top-left of the end cells, e.g. 50% (see Table 1). Working with major users of the resource, the aim is to reflect the proportion of a resource or service that is collectively perceived to be lost or absent as a result of the conflict. For example, if, on average, 50% of farmers' maize crops are lost to elephant, bushpig or buffalo trampling each year, then the magnitude of the conflict is 50%.

If there is no direct conflict, but instead the community perceive a development 'concern' (such as poor firewood supplies in the wet season), it is still possible to identify the associated % magnitude of the problem. For example, taking the dry season fuelwood supply as the norm, it might be estimated by those regularly involved in collecting firewood that only two thirds of domestic fuel needs are met in the wet season from December to April. Thus the magnitude of this concern entered in the matrix would be 33%. A full explanation of the seasonality and nature of the concern would also be documented.

The % figures simply indicate the scale of the conflict or concern. However, to arrive at the figure, it is necessary to explore the impact of the problem on the lives of those affected by it. On its own, the single % figure is a clear and simple way of raising the awareness of external stakeholders as to the impact of the community's existing resource conflicts.

The heterogeneity of any community means that different groups of local people are likely to be involved in the utilisation of different natural resources. However, for ease of interpretation the summary matrix gives only the primary community stakeholders - those directly dependent upon a particular resource in terms of either employment, gender, wealth etc. Other cases may require different divisions or levels of disaggregation.

The second means by which a resource conflict/concern is described is to identify its 'importance' to these primary stakeholders (bottom-right of the end cells, see Table 1). This figure is required because the magnitude of a conflict does not necessarily reflect its significance. For example, the hungry season may coincide with the onset of the wet season (e.g. before the maize crop can be harvested). Elephant trampling of the annual cassava crops at this time may be considered highly important, even though the crop loss, in terms of annual yield may be small, e.g. 10%.

The 'importance' of resource conflicts and concerns to the primary community stakeholders is represented in the matrix as:

- H indicates resources of *high* importance to sustaining livelihood security or protecting human welfare;
- M indicates resources of *moderate* importance to sustaining livelihood security or protecting human welfare;
- L indicates resources of *low* importance to sustaining livelihood security or protecting human welfare.

These definitions are intentionally open ended. This leaves room for the primary stakeholders (or community as a whole) to determine what the criteria for importance should be. PRA techniques useful for prioritising conflicts and gauging 'importance' include: pairwise

comparisons, direct matrix ranking and cluster ranking. As with the 'magnitude' figures, the 'importance' classifications are indicative only. Associated with each classification, explanatory documentation is provided. This details the types of resources affected, their location, the periods of their collection or use, issues of uncertainty and risk and the rationale behind the magnitude and importance classifications (see Table 1).

Resolutions

The Conflict Analysis Framework is not a tool for policy formulation. It is a means to bring the community perspective into a wider process of consensus-building between all stakeholders likely to be affected by, or influential in, the policy. However, it can be used to encourage local people to investigate options for resolving their perceived resource conflicts.

The idea is that these options can then be used as starting points for wider negotiations over policy. The Conflict Analysis Framework categories conflict resolutions into one of three types. These are indicated in the middle of the end cells (see Table 1) as follows:

- Ri* policy resolutions able to be implemented *internal* to the affected stakeholder group and which are readily available, affordable and socially acceptable;
- Re* policy resolutions requiring *external* financial or technical assistance;
- Rp* *prohibitive* policy resolutions (due to financial, social or environmental cost).

Table 1. Extracts from a summary matrix

Community activities	Community resources	Conservation conflicts	Community perceived conflicts/concerns	Primary resource stakeholders					
				Men		Women			
Shifting Cultivation	Land with adequate regrowth	Elephant habitat loss	Distance/time	25%	Rp	M	25%	Rp	M
	Logs for charcoal	Elephant habitat loss	Loss of regenerative potential of forest	50%	Rp	H	50%	Rp	H
	Cassava crop	Elephant habitat loss	Crop damage (elephants)	40%	Re	L	40%	Re	L
Fishing	Fish stocks	Loss of food sources for endangered bird species	Progressively reduced catches and size of fish	50%	Ri	M	50%	Ri	M
Hunting	Buffalo and other game species	Declining "game" populations	Hunting restrictions	80%	Re*	M	-	-	-
Firewood Collection	Time/Labour	Biodiversity and elephant habitat loss	Not availability during wet season	-	-	-	50%	Re	H
Permanent agriculture	Fertiliser		Late delivery (1 month)	40%	Re	H	-	-	-

* see Table 2

Supporting Documentation

Community Activity	Community Resource	Conflict/Resolution
Permanent Agriculture	<i>Fertiliser</i> - according to the elders in the village, in the mid 1960s cheap synthetic fertilisers were introduced to aid the cultivation of maize. This led to a switch away from organic (grasses and manure) fertilisers, resulting in a growing dependency upon synthetics.	<p><i>Magnitude</i> - Land holders are dependent upon the delivery of fertilisers by outside agencies, and over the last few years the lack of status of the village has meant that fertilisers arrive late (average delay 1 month). This has led to a decline in the yields produced and a corresponding reduction in the cash earned from maize sales. Participants suggested that the late arrival of fertilisers leads to a 40% reduction in maize yields which more than wipes out their profit margins. In addition, fertiliser costs have risen steadily, which when combined with the reduced yields, has led to an increasing number of villagers taking on debt.</p> <p><i>Importance</i> - As the primary source of cash income, the late arrival and increasing price of fertilisers for maize is of critical importance. Given that maize production (and to a certain extent household income expenditure) is the preserve of men in the village, the critical importance of this concern is perceived less by the women and waged labourers of the village. The concern of the former is more with food security, and therefore cassava.</p> <p><i>Resolution</i> - It is perceived that it would be difficult to return to organic fertilisation given that a financially supported transition period of 3 to 4 years would be needed to overcome the decrease in natural soil fertility that has now arisen. However, where this is possible, it would remove the dependency and increasing debt burden of those villagers relying on imported fertilisers (Re).</p>

• Community action proposals

The Conflict Analysis Framework supports the development of community action proposals (CAPs). These provide an incentive for local people to participate in the policy formulation process. They also build trust between communities and the external stakeholders, CAPs are project or action outlines that seek to bring rapid and tangible benefits to the participating communities. They are intended

to be implemented without the need for wider stakeholder agreement, or for substantial financial or technical assistance.

CAPs address the problem of policy-based PRAs raising false short-term expectations by limiting themselves to information extraction. Table 2 is an example of a CAP. Shading is used in the summary matrix in Table 1 to highlight those resolutions taken forward by the participants as CAPs in Zambia.

Table 2. Example of a community action proposal (CAP)

Buffalo Habitat Enhancement Scheme	
WHAT	The granting, by the Ministry of Tourism, of a "special licence" for the community to hunt buffalo (quota of 50 per annum) within local area, in return for enhancing buffalo wildlife habitats through forage planting and refraining from further forest encroachment
WHY	In medium term (3 to 5 years) will increase population of buffalo in the protected area as well as enhancing habitats for other species
WHO (implementers)	Village Wildlife Management Sub-Authority to co-ordinate team of conservation workers from community
WHO (benefits)	All households who consume bush meat, and in the longer-term the whole village through increased safari hunting revenues re-distributed to communities
WHERE	Forest encroachment halted to south of village in areas of buffalo and other wildlife migratory routes. Also forage planting along migratory routes, and along river bank where buffalo and other wildlife congregate during dry season
WHEN	Maximum efforts to prevent forest encroachment targeted in October/November. Forage planting concentrated in December to deliver habitat and food refuges in dry season
HOW	Village conservation teams to be provided with seeds and tools for forage planting, and village scouts hired in October/November to monitor for forest encroachment
COST	US\$ 10,000 per annum
TIME TO BENEFITS	<ol style="list-style-type: none"> 1. Special license for village buffalo quota delivers bush meat to village (for consumption or sale) within six months of application. 2. Increases in buffalo and other wildlife populations from habitat improvements expected to give rise to increases in safari hunting revenues in years 3-5. 3. Payment of village scouts in October/November provides benefits to certain villagers.

• The Zambian context

It was not the explicit intention of the Conflict Analysis Framework to influence policy formulation (although the results are currently being used to support funding applications for future community/wildlife programmes by WWF-BMP). The Conflict Analysis Framework was piloted:

- to test the concept of a framework methodology for linking PRA to policy formulation in the field of *parks and people*;
- to determine the range of appropriate PRA techniques for this purpose; and,
- to expose the Zambian National Parks and Wildlife Service (NPWS) and WWF to the possibilities of acting as facilitators to resolve conflicts between local livelihoods and conservation.

The findings of the pilot studies were distributed to the participating communities, NPWS and WWF. In addition, the report was sent to all relevant development agencies (e.g. district council, forestry and agriculture departments, USAID, other NGOs) who might wish to review their regional policies or lend their support to implement the specific resolutions forwarded by the communities.

At the time of writing, NPWS are awaiting confirmation from USAID of funding for a programme of GMA management planning across Zambia. If granted, there is every possibility that the *Conflict Resolution Framework* will play a role in strengthening the participation process.

• Lessons learned

Some of the key lessons learned from the pilots are as follows. First, before its application, screening criteria should be employed to determine the feasibility of applying the technique. Most of these criteria would apply to all uses of PRA for policy formulation, and include:

- adequacy in skill and experience of PRA facilitators²
- a pre-arranged process whereby the results of the PRA rapidly feed into policy formulation;
- political willingness for policy to be influenced by the local level;
- a capability for external stakeholders to negotiate collaboratively; and,
- adequacy of human and financial resources for the CAPs to be implemented.

Secondly, the Conflict Analysis Framework highlights the debate over the extent to which PRA should exclusively promote 'indigenous knowledge', or alternatively encourage the transfer of 'outsiders' knowledge to local people. When introducing the resource conflicts perceived by external stakeholders to the community, care needs to be taken not to unduly influence the goal of presenting the local perspective.

Thirdly, the matrix is intended to be simple and yet meaningful. In order to achieve this a trade-off needs to be made between promoting meaning (by disaggregating each community into all stakeholder groups) and promoting simplicity, by limiting the disaggregation to the major social divisions, e.g. gender, wealth, education.

Fourthly, we feel that the introduction of a more systematic approach to PRA (by drawing on conflict resolution and environmental impact assessment techniques), improves the quality of the information generated. The matrix enables the relative importance of different conflicts to be made explicit.

Outsider interpretation of local perspectives is a problem that currently faces efforts to link PRA to policy. It is important that facilitators faithfully represent local perspectives in both the summary matrix and background documentation.

² Facilitators may be the conservation authorities. If antagonism with local people is too great, other facilitators, viewed by local people as independent, may be used in collaboration with conservation authorities. To raise awareness and build trust, it is important that the facilitation team should include conservation authorities, if possible.

The Conflict Analysis Framework is part of a wider participatory framework methodology called the *Framework for Consensus Participation in Protected Areas* (FCPPA). This broader methodology builds the Conflict Analysis Framework into a comprehensive process of strategic resource management planning for protected areas.

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NOTE

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