

# Achieving Sustainable Natural Resource Management Outcomes on the Ground: the Key Elements of Stakeholder Involvement

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**A**chieving outcomes on the ground is crucial to sustainable natural resource management. Stakeholder involvement is not only a central tenet of sustainable management, it also contributes to outcomes through engendering commitment. This article explores, through three natural resource sectors in Australia, the elements of such involvement contributing to commitment and hence outcomes. The activities of three advisory/consultative groups from the protected area, agricultural and mining sectors provided the case studies. It is evident from these cases that perceptions of fairness, identifying a planning process as the 'place to be' and realising mutual benefits were the key elements. Natural resource managers and opinion leaders can foster these elements by building partnerships, managing impressions and allowing sufficient time for planning and collaboration.

## Introduction

Sustainability is one of the most influential concepts in natural resource management today (National Natural Resource Management Task Force 1999, Johnson and Walker 2000). The Commonwealth's State of the Environment Report suggested that it is the central issue of our time (State of the Environment Advisory Council 1996). Jacobs (1999) summarised the intent of sustainable development in six core ideas, here modified for sustainable natural resource management:

- (1) Ensuring that economic development and environmental protection are integrated in planning and implementation;
- (2) Taking into account a concern for future generations in current activities;
- (3) Having a commitment to reducing pollution and more efficient resource use;

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- (4) Having a commitment to meeting the basic needs of today's poor as well as equity between generations;
- (5) Recognising that human wellbeing is based on more than income; and
- (6) Recognising that the sustainable management of natural resources requires the involvement of all stakeholders.

There is growing interest in stakeholder involvement, both as a central tenet of sustainability and as part of the increasingly influential element in natural resource management of participatory democracy (Warner 1997, Johnson and Walker 2000).

In recent years, managers and an increasing number of policy makers have become concerned that stakeholder involvement and participation are being pursued as endpoints in themselves, with other more tangible outcomes being neglected. In this article, we seek to refocus the discussion on stakeholder involvement by identifying which of its elements contribute to outcomes 'on the ground'. Examples of such outcomes include fencing remnant vegetation to protect biological diversity, recycling industrial water to reduce consumption and prevent contamination of other stocks, properly engineering dams to contain mine tailings, and soil conservation activities such as planting shelter belts to reduce the effects of wind erosion. Without these activities sustainable natural resource management cannot be achieved nor its efficacy judged. Recognising their centrality to sustainable natural resource management, the \$1.25 billion Commonwealth government's Natural Heritage Trust has preferentially supported projects on the ground (Commonwealth Government of Australia 1997).

Commitment to achieving outcomes from planning processes involving stakeholders has been explored elsewhere (Moore 1994, Hartig *et al.*, 1996, Warner 1997). Broadly defined, commitment is selecting a course of action and staying with it, generally through to implementation, after having considered other options (Becker 1960). Warner (1997), in work on protected area planning, noted that commitment was needed for such

planning to succeed, that is, to get a plan. The studies of planning processes for protected areas by Moore (1994) showed that commitment was crucial if outcomes (i.e. a plan and its subsequent implementation) were to be obtained. Commitment is often labelled ownership. Hartig *et al.* (1996) described how stakeholder ownership as an outcome of planning was essential for sustainable management of the Great Lakes Basin of the United States. Here we examine the features of stakeholder involvement that engender commitment.

### Case Study Methods and Descriptions

Cases studies were selected from the protected area management, agricultural and mining sectors particularly those experiencing threats regarded as being of highest priority for action, including land and inland water salinisation and loss of biological diversity (Government of Western Australia 1998). The sectors chosen also

represent the range of possible mixes of land ownership, from public lands in protected area management to predominantly privately owned lands in the agricultural sector. Together, the three case studies cover the diversity of Australian natural resource management.

The unit of analysis (Yin 1989) in each case study was the activities of a consultative/advisory group. Groups were selected where stakeholders, and specifically local community members, had been actively involved in planning and/or management and where adequate data on this involvement were available. Additionally, the selected cases had to have resulted in outcomes on the ground. A case study approach was chosen because we wanted to study contemporary events that we could observe but not manipulate (Yin 1989).

The protected area case study was the involvement of the Fitzgerald River National Park Advisory Committee in management planning for Fitzgerald River National Park (Fig. 1) in the 1980s. The National Park, on the south coast of Western Australia and 400 km south-east of Perth, covers about 330 000 ha. The 11-person Advisory Committee, appointed by the State Minister for the Environment, contributed to the planning process over five years. The outcome was a management plan and a series of tangible actions (e.g. constructing new campgrounds). The Committee was a heterogeneous mix of recreationists, local farmers, conservationists, commercial tour operators and land managers. The data sources for this study included observations of meetings by the first author, interviews with advisory committee members, and reviews of files, documents and publications (Yin 1989). The interviews were in-depth and conducted face-to-face (Frankfort-Nachmias and Nachmias 1992).

The agricultural case study featured the planning and management activities of the Gabby Quoi Quoi Catchment Group (Fig. 1) over the last decade. This 20 784 ha catchment is located in the Western Australian wheatbelt, 160 km north east of Perth. The Group includes 13 farming families, Alcoa of Australia and Agriculture WA (a State government department). The outcomes of this collaboration include managing 839 ha of land by planting 312 600 trees, installing 25 km of surface drainage, protecting 133 ha of remnant vegetation and treating 490 ha of saltland (Landcare Vision 1996). The second author

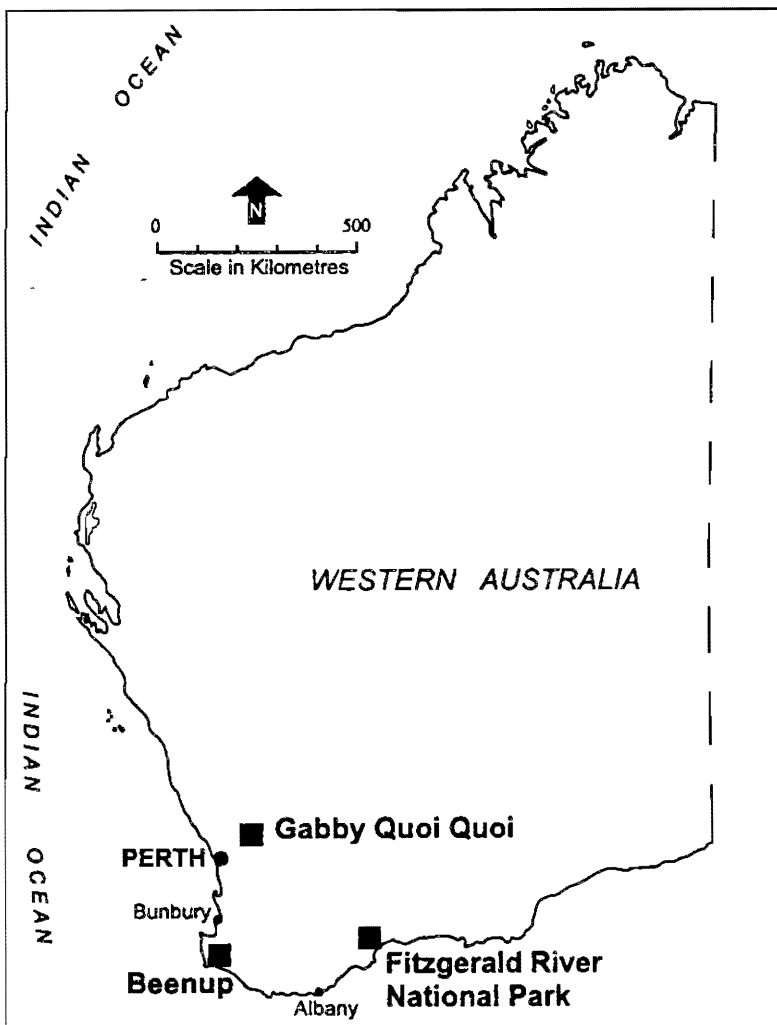


Figure 1. Location of Case Studies

observed meetings and interviewed Group members using similar methods to those used in the first case.

The mining case study was built around the activities and outcomes from the Beenup Community Consultative Group established by BHP Titanium Minerals as part of its planning for the Beenup mineral sand mining operation in south-western Australia, about 250 km south of Perth (Fig. 1). The Consultative Group was set up in 1989 within months of the announcement of encouraging exploration results. They met throughout the environmental approval and project planning phases (Smyth 1990) and continued to meet to advise the company on mine closure (production ceased in 1999). The Consultative Group included local landholders, conservationists, local business people and local government representatives. Outcomes of their involvement included the local community assisting in locating a new regional road, preventing offsite water discharges into the Blackwood River and managing important areas of remnant vegetation for nature conservation. Data sources for this study included observations at meetings by the third author, discussions with key informants and reviews of documentation.

Data were analysed using grounded theory (Strauss and Corbin 1990) and then pattern matching between cases (Yin 1989). The term 'theory' is misleading. Grounded theory is actually a research method. It uses critical reading of interview transcripts and notes taken during participant observation, plus document review, to identify and describe key ideas emerging from the data by virtue of their pivotal nature or repetition and reinforcement by multiple informants. Review and re-review of data are used to fully describe and verify these ideas. In this instance, these descriptions focused on the elements of stakeholder involvement identified by group members as contributing to commitment. Once these ideas had been fully described for one case study, pattern matching was used to determine if similar descriptions applied in the other two cases. This was an iterative process with the descriptions in all three cases being refined through comparison (Strauss and Corbin 1990). While extensive quotations from informants have not been included here for reasons of space, the statements that follow are the result of this rigorous analysis.

### **Key Elements of Stakeholder Involvement Contributing to Commitment**

As mentioned earlier, our critical interest is the elements of stakeholder involvement contributing to commitment. It is this commitment, as documented in other research, which results in outcomes on the ground. These elements

- perceptions of fairness, the planning process as the 'place to be' and realising mutual benefits - are described below, as are their contributions to commitment. These elements were apparent in all three cases. No other elements were apparent from our analysis, or apparent in one case and not the others. The following descriptions draw heavily on the interviews, and especially from key informants in the Beenup case.

#### **Perceptions of Fairness**

In all three cases, the planning processes were perceived as fair by community, government and industry members. These perceptions were based, in part, on the belief that all interests were represented. For example, members of the Fitzgerald River Advisory Committee commented that their interests were fully represented and thus the process was fair. This is a market-place view of representation where a process is regarded as fair if all those who 'should' be involved have a voice in the market-place (Lane 1986).

Perceptions of fairness were also based on contributions being made by all those involved. In the Gabby Quoi Quoi case, Alcoa provided facilitation skills and financial assistance of about \$225 000 over five years with further financial support over a second phase. Agriculture WA's input was technical information, while each farming family contributed funds, labour and equipment in a ratio of at least 3:1 (landholders: Alcoa) for activities on the ground (Peter Curry and Associates 1996). In the Fitzgerald case, the contribution was in time with both community and government members spending long hours on the plan. Community members became more committed to the plan when they saw public servants spending their own time, outside office hours, attending meetings.

People being heard and their ideas and knowledge being taken into account also added to the perceived fairness of the planning process. Those involved in the Gabby Quoi Quoi Catchment Group regarded the planning as fair, in part because their ideas and knowledge were used. Every member had the opportunity to present their views and needs as well as perceiving they had the ability to change the outcomes. In the Fitzgerald case, local knowledge was used to clarify the nature and level of degradation of the Park's resources, thereby defining the problems for planning to address. The plan's management strategies, particularly for fire and the identification of suitable sites for recreational facilities near the coast, also drew on local knowledge. This investment of expertise, and a desire to see their ideas taken through to implementation, committed members to the planning process.

At Beenup, perceptions of fairness were based on the company's openness and willingness to listen over time to members of the Community Consultative Group (Smyth 1992). An important observation by company personnel was that the "community was given enough time so that an informed response rather than an emotional one could be given to the Environmental Protection Authority, government politicians and [in an opinion survey]" (Smyth 1992, 9).

Satisfaction with the planning processes, based on perceptions of fairness, resulted in the participants in all cases being committed to obtaining and implementing the outcomes of their planning. Voluntary cooperation, which is often a prerequisite for action, especially where lands are privately owned, generally relies on perceptions that the associated planning process was fair (Kim and Mauborgne 1998). While many people may be satisfied with outcomes no matter what the process, others are not unless they are also satisfied with the process used to reach that outcome (Douglas and Wildavsky 1982, Mangin and Steger 1990). For these people, belief in the procedural fairness of the planning process, based on evidence of participants' inputs being used and influencing decision-making (Korsgaard *et al.*, 1995), is essential if they are to be satisfied with the outcomes.

#### **Establishing the Planning Process as the Place To Be**

In all three cases, the planning process was recognised as the 'place to be'. This phrase was used by our informants and is used here as a simple and powerful description of why people continued to participate in the consultation processes. The concept of the place to be (Moore and Lee 1999), has been variously described as the best alternative (Fisher *et al.*, 1991), a shared belief in what is inevitable (Benveniste 1989), and the chosen course of action having made side bets and dismissed them (Becker 1960). In the United States, many people have abandoned consensus-based planning for public lands for the court system and litigation. They have decided that consensual planning is not the place to be (Wondolleck 1988).

For members of the Gabby Quoi Quoi Catchment Group their planning process became the place to be in the WA wheatbelt: it was one of only six catchments chosen for Alcoa of Australia support. Alcoa's role as a sponsor has been unusually prolonged, with long-term funding for landcare works, plus assistance in project design, administration, facilitated planning, supply contracts, monitoring and group support (Peter Curry and Associates 1996). Today these catchments are promoted as successes in collaborative land management and are the model for developing 'focus catchments' as

advocated in the WA Government's Salinity Strategy (State Salinity Council 2000).

The certainty of funding over a number of years has greatly enhanced the Gabby Quoi Quoi catchment process as the place to be. It has fostered good relationships, enabled new practices to be trialed with minimal financial risk for individuals and greatly assisted group development by maintaining momentum. Efficient and effective meetings, facilitated by Alcoa and Agriculture WA, have cultivated a sense of achievement, progress and confidence in attaining goals. Through the planning process, the group has developed a long-term, shared vision (J. Collett, personal communication). Particularly important for group development has been the ongoing involvement of Alcoa and Agriculture WA staff. These staff are valued for their technical help, planning skills, direction and enthusiasm. Strong relationships now exist.

Power also rested in the Gabby Quoi Quoi process for several other reasons. First, individual landholders had and continue to have considerable authority to make changes in land management practices on their own lands: 'he who has the gold, makes the rules' (J. Collett, personal communication). Unlike the public lands process, Gabby Quoi Quoi group members individually and collectively can initiate action on the ground. Second, power was derived from the collective processes of catchment planning: group members were able to plan and allocate budgets collectively. Alcoa and Agriculture WA promoted this collective power, primarily by facilitating meetings and ensuring that all those affected participated actively in decision-making.

Those involved in the Fitzgerald process decided it was the place to be because power rested in the process. Power is one of the reasons people decide to become actively involved in natural resource management issues (Buchy and Hoverman 2000). Key community figures were members of the Advisory Committee. The process was resourced and supported by the State government. People also judged rationally that their chances of getting what they wanted were better inside than outside the process. The main alternative was political lobbying. Several members tried this in the early stages through local government and their local politician but a unified stance by State organisations and politicians made the planning process more attractive than lobbying, which in any event did not look like it was going to influence decision-making. It became apparent the planning process was going to proceed so it was better to participate and dissent rather than remain absent.

The Beenup Community Consultative Group was seen as

the place to be by both the company and community, with community members wanting to be involved. "The community wanted to be involved (in the consultative group)" (Smyth 1992, 8) and "The public opinion survey showed that the community in general was willing to trust that [the company] was going to do what it said, however the community wanted continued involvement" (Smyth 1992, 8). The Consultative Group was seen as the place to be because it could influence the company's operations.

The Consultative Group influenced the selection of the transport route for the mineral sand product and raw materials. The route was important regionally for the local community. "One of the Beenup Consultative Group's initial major roles was an evaluation of the options for transporting the minerals produced at Beenup. After a series of studies, [the company] identified three potentially viable and cost-effective options for transporting the minerals to its markets. The Consultative Group set up a five-member sub-committee to make a detailed analysis of the three options from the community's point of view. The sub-committee made no final recommendations, but provided a matrix identifying the pros and cons for each of the options. This sub-committee report was adopted by the Consultative Group in October 1989 and at that stage, [the company] agreed to an engineering review to take account of the committee's findings. [The company] finally selected a road option as its preferred transport route. Although this was a controversial decision as... communities were looking for an uneconomic rail option, the local community found it more acceptable than the other two viable options." (Smyth 1992, 4).

One of the key ways that a planning process becomes the place to be is by impression management. Such management involves individuals or organisations attempting to control others' impressions of them - impressions of their behaviour, motivations and morality (Rosenfield *et al.*, 1994). In such cases, impressions of those observing or involved in the planning processes are regarded as important. The State government in the Fitzgerald planning process relied on impression management to foster the power and influence of the Advisory Committee at every occasion. Ministerial correspondence was addressed to the Chair, the Committee's role was advocated in as many fora as possible and senior agency staff treated the Committee with respect both in meetings and the broader community. This was managing the impressions of those involved in or observing this planning process.

With Alcoa's use of impression management, the activities of the Catchment Group were increasingly identified as the place to be. The company describes the impression they sought to create as one of a business manager facilitating strategic planning and managing the group, with their performance viewed by the group as being highly efficient, empathetic and responsive (Peter Curry and Associates 1996, R. Edkins, personal communication). In the early stages of catchment planning, as a mining company and external stakeholder, Alcoa had to work to gain the trust, respect and commitment of Catchment Group members. One way Alcoa engendered trust was by not requiring written contracts, application forms for funding, or accountability for funds. As the catchment lands are owned and managed by others who have the power and authority to implement or not implement management actions, it was essential Alcoa did not detract from this power and associated responsibilities. For example, Alcoa refers to the Gabby Quoi Quoi catchment as a "catchment assisted/sponsored by Alcoa" not an "Alcoa catchment". In a similar vein, the company continues to down play its role in the group's success, acknowledging only that it assisted the group in achieving their aspirations.

In these cases, participants became committed because they had decided their planning process was the place to be having considered all other possibilities. Additionally, part of the commitment associated with these planning processes hinges on sunk costs, such as the time and resources invested (Bielby 1992). Negotiation research has shown people commit to a course of action if they have invested resources in it even if it is no longer the most reasonable alternative (Neale and Bazerman 1991).

### **Realising Mutual Benefits**

Discovering and developing mutual benefits were characteristics of the three cases. The crucial mutual benefit to participants was enabling their interests to be protected. In the Fitzgerald case, these interests were both self-oriented and mutually-derived and directed. Self-interests included ensuring the continuing availability of a 'traditional' coastal camping site through to providing interpretive information at a favoured site. A central shared interest developed through the planning process was protecting the natural environment of the Park.

The Gabby Quoi Quoi process resulted in a mutually advantageous partnership for all involved. The key shared benefit was reversing land degradation in the catchment. Individual benefits varied. Farming families received

long-term funding for accelerated actions on the ground to reverse land degradation and improve agricultural production. Alcoa received recognition of their involvement in addressing land management issues in the wider community and for fostering community interest in Landcare as well as gaining support for their profile as a good corporate citizen. For Agriculture WA, the benefit was the ability to develop catchment management methods for application to other groups.

In the Beenup example, neither the community nor BHP could have achieved what each wanted without collaborating with the other. By obtaining sufficient community support for an economic transport route the company contributed to facilitating government approval for its project. Without this level of consultation the company may not have gained the public support needed for development approval. And, the community gained a new regional road and an acceptable transport route, although it was not their first preference.

Another mutual benefit in both the Fitzgerald and Gabby Quoi Quoi cases was the respect engendered through belonging to the decision-making group. Members respected each other and were respected by the broader community for their contribution to an important project. The group-identity developed through the Fitzgerald planning process gave members standing in their communities and a sense of belonging to an important group (Moore and Lee 1998). Essential for development of group-identity was the growth of interpersonal trust among members (Moore 1995).

The Gabby Quoi Quoi Catchment Group, including Alcoa and Agriculture WA, had a strong sense of group-identity. Together with the five other Alcoa-assisted catchment groups, they have formed an incorporated body, Landcare Vision, to share their experiences and land management practices with others. Group cohesiveness, demonstrated by the way the members of the group worked together, was stimulated early in the process by a catchment tour that helped people to think beyond their own farms to cross-boundary problems (Peter Curry and Associates 1996). Such group cohesiveness is a powerful source of group-identity and is indicative of group pride, commitment and interpersonal familiarity (Thompson *et al.*, 1998).

A final mutual benefit in all three cases is having an ongoing means for stakeholder concerns to be addressed as they arise. Such means are crucial if commitment to sustainable activities is to continue. Also, managing for sustainability is hampered by the long time frames of most environmental processes, and by the slow response

of ecological systems arising from management difficulties, scientific uncertainties, and lack of information. As such, sustainable natural resource management is a long-term venture relying on actions over time to feed in new information and allow adaptation to changing circumstances (Dovers 1995).

Commitment grew from realising mutual benefits could best be gained through joint planning and action. This was commitment to partnerships and to outcomes resulting from cooperation and respect for other members.

## Conclusions

In this article, we have described three key elements of stakeholder involvement in natural resource management likely to contribute to outcomes: perceptions of fairness, defining a planning process as the place to be and realising mutual benefits. We have focused on those elements of involvement contributing to commitment, relying on other studies to describe how commitment leads to outcomes on the ground. Such outcomes are of course essential if sustainable management is to be achieved. Having identified these key elements, what are the best ways natural resource managers can ensure they are part of stakeholder involvement processes?

*Building partnerships* is one way. The ideas and practice of partnerships are currently dominating discussions in natural resource management (e.g. National Natural Resource Management Task Force 1999). We suggest partnerships specifically as a means of building commitment, via making planning processes the place to be and creating an environment where mutual benefits can be constructed and enjoyed. Partnerships, as advocated here, involve power sharing where there is no dominant group (Mason *et al.*, 1994), with each stakeholder contributing resources and actively engaging in the process. Partnerships as described here, and in contrast to co-management, require deeper levels of commitment to outcomes and to the partnership itself.

Different partners are likely to be involved in different sectors. In the mining sector, the partnership may be between industry and the local community, as with the Beenup Community Consultative Group. For public lands management, advisory committees and 'friends of' groups are usually an amalgam of the managing agency and the interested public. This was the case with the Fitzgerald Advisory Committee. Tripartite arrangements between industry, governments and local landholders have been recommended for Landcare purposes in agricultural areas (Alexander 1995). The Gabby Quoi

Quoi Catchment Group is an example of such a partnership. More recently, projects such as Living Landscapes, in the WA wheatbelt have brought in a fourth partner - Greening Australia (WA), a non-government conservation organisation.

In this article we advocate a partnering approach but only as a means to an end. The purpose of partnerships, from our perspective, is to engender the commitment that in turn supports outcomes as part of sustainable natural resource management. To make sure commitment is achieved any decision-making associated with these partnerships must be perceived as fair, otherwise some stakeholders will not partake in the process. In addition, resource contributions to the partnerships by those involved are important in building commitment, whether these contributions be made in terms of time, technical skills or money.

*Impression management* is another way of assisting the development of commitment through stakeholder involvement in planning processes. These processes can become the place to be through impression management. For stakeholders to join and then stay, managing the impressions of both those involved and observing is very powerful. In the Gabby Quoi Quoi and Fitzgerald cases the impressions of those involved and on the margins were important influences on the power afforded each planning process. Impressions can be managed by government staff, opinion leaders and others in influential positions. Ways of doing so include overtly and publicly sharing as much responsibility as possible with the stakeholder group, ensuring all staff within an organisation, especially senior staff, treat the group with the utmost respect, and providing as many resources as possible with minimal associated conditions (as per the Gabby Quoi Quoi case).

*Allowing sufficient time* is the third way evident from these results for developing stakeholder commitment. Time is needed for groups to recognise and develop mutual benefits. In the Fitzgerald process it took 12-18 months before the shared goal of protecting the natural environment was developed. We are all anxious to make decisions and get outcomes; however, without taking the time to develop commitment, tangible outcomes may never eventuate.

As part of achieving sustainable natural resource management, we have tried in this article to move the discussion of stakeholder involvement beyond what techniques should be used and who should be involved. Rather, we have sought to re-focus attention to 'managing' planning processes to achieve outcomes, with

commitment providing the essential link. By building partnerships, managing impressions and allowing sufficient time, natural resource managers and opinion leaders have the opportunity in stakeholder involvement processes to build the commitment so necessary for outcomes on the ground.

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