INNOVATIONS IN PARTICIPATORY APPROACHES FOR SUSTAINABLE RECREATIONAL FISHERIES MANAGEMENT

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Abstract

Community-based fish stocking groups have established in Queensland. These groups contribute to the management of local freshwater fisheries. Management of these recreational fisheries is facilitated on a co-operative basis between fish stocking groups and the Queensland Fisheries Service (QFS) of the Department of Primary Industries, under the fish stocking program. Officially known as the Recreational Fishing Enhancement Program, the program has been operating for approximately 15 years. The Queensland Government introduced the program in 1986, with input and support from recreational fishing groups such as Sunfish Queensland, Australian National Sportfishing Association and the Anglers Fish Stocking Association of Queensland. The initial aims were to stock and restock inland water storages (dams and weirs) with native fish species, create an inland recreational fishing resource and tourism attraction, and remove pressure on saltwater estuary fishing. The first twelve years of the program saw the Department take a major role in decision-making and priority setting.

Negative feedback from fish stocking groups indicated a need to implement change in the approach to the program. QFS responded to these needs and innovations were implemented over a three-year period to provide mechanisms for change. Varying degrees of community participation occur within many of the activities that contribute to the management of Queensland's freshwater recreational fishery. These types of participation are interpreted through a Typology of Participation model specifically designed for fisheries management. Originating from work of rural extension theorists and modified to suit a fisheries context, this model is presented as a guide for describing examples of Queensland management initiatives.

Extension theories are presented together with specific case studies to demonstrate how these innovative approaches have been applied and the resulting shift in community attitude. These innovations have fostered a positive community atmosphere, constructive dialogue, and recognition that Queensland Fisheries Service and community groups can work together in partnership to sustainably manage freshwater recreational fisheries.

Introduction

In recent years there has been a significant international move in community-government relationships with regard to natural resource management. This move has seen a shift from paternalistic government policy and administration to community-government consultation, cooperation and partnership. Suzuki and Knudson (1992) describe the validity of cultural perspectives when considering the management of natural systems. The move towards community-based resource management indicates government recognition of this validity. This acknowledges that communities can provide significant contributions to policy, management, labour and resources that are relevant and locally acceptable.

Many programs throughout the world illustrate that local communities and individuals have been active participants in the management of natural systems within catchments (Hinchcliffe et al., 1999; Stapp et al., 1998). In Australia, national community-based programs such as Landcare (Chamala and Keith, 1995) and Waterwatch (Foster, 1995) encourage community participation in catchment management. These programs illustrate that government, non-government organisations, local communities and individuals can sponsor and be partners in catchment management.

Initiatives of the International Centre for Living Aquatic Resources, Network of Aquaculture Centres in Asia-Pacific (NACA), Southeast Asian Fisheries Development Centre and International Institute for Rural Reconstruction (IIRR) have generated community based fisheries management programs (IIRR, 2001; Subasinghe et al., 2001). The Samoan Fisheries Project (Kallie, 1999; King and Faasili, 1999) is an example where each village in Independent Samoa generates their own fisheries management plan that may include a restocking program for giant clams.

There are numerous fisheries management programs where local community groups produce and release fingerlings for conservation and 'put, grow and take' purposes. In the United States some of these programs are driven by non-profit organisations such as

Table 1. A model for community participation in recreational fisheries management

Level of participation	Characteristics of level
1. Passive participation	The community is presented information on what is going to happen (or has happened) in a project, how and when it will happen. The community has no input into fisheries management.
2. Participation through provision of data	The community provides data by answering a set of pre-determined questions. Often the data is not validated through further contact with the data provider. The community queries how the information will contribute to fisheries management.
3. Participation for emotional reward	The community provides resources, such as money, people or time, in return for emotional comfort. They feel their contribution will help to sustain the fishery resource. The community feels there is no need for continuous involvement in fisheries management.
4. Participation by consultation	The community provides feedback on proposed changes to policy. The issues and solutions are pre-defined within a government document. Solutions may be modified in light of the community response. The community has no role in decision-making for fisheries management.
5. Functional participation	The community is represented on a committee to provide advice to fishery managers. The committee has been formed with pre-determined objectives to meet a pre-determined purpose. The committee tends to be dependent on the initiators. The community provides expert advice for consideration in fisheries management.
6. Interactive participation	The community is represented on a committee that jointly provides input, analyses information, and develops strategies and actions. Objectives of the committee are determined by its members. Results in the strengthening of local groups through information exchange. The community takes a lead role in local decisions that contribute to fisheries management.
7. Self-mobilisation	The community takes the initiative to form groups to meet their own objectives. They develop contacts within government departments, source funding to achieve their objectives and have control over the use of the funds. Their success strengthens the community. The community provides the resources to accomplish fisheries management objectives.

Trout Unlimited (www.tu.org). In other cases the United States Environmental Protection Authority (www.epa.gov/OWOW/fish) supports community groups. The Salmonid Enhancement Program established in Canada (Department of Fisheries and Oceans, 1996) has a strong community base for the fish-stocking program.

In Queensland, programs such as Fishcare Volunteers, Seagrass Watch and the Recreational Fishing Enhancement Program involve community groups and individuals in varying ways.

Due to variations in the style of interaction between communities and government, confusion arose about the meaning of the term 'participation'. A Typology of Participation (Pretty et al. 1995) was developed to guide extension professionals in interpreting community participation. This typology describes different types of participation for agricultural communities and is drafted in a hierarchy of levels. It has been modified to suit recreational fisheries management (Hollaway, 2001) (Table 1). When used in conjunction with a design framework (Foster, 2002), it is possible to develop effective processes to assist community groups to be self-directing participants in fisheries management programs. 'Participative' processes for communities in fisheries management are well accepted and successful throughout the world. A broad range of groups that can participate in these processes include government, non-government organisations, local communities and individuals.

Participatory processes have been developed for the Recreational Fishing Enhancement Program, through the use of a design framework and the above typol-

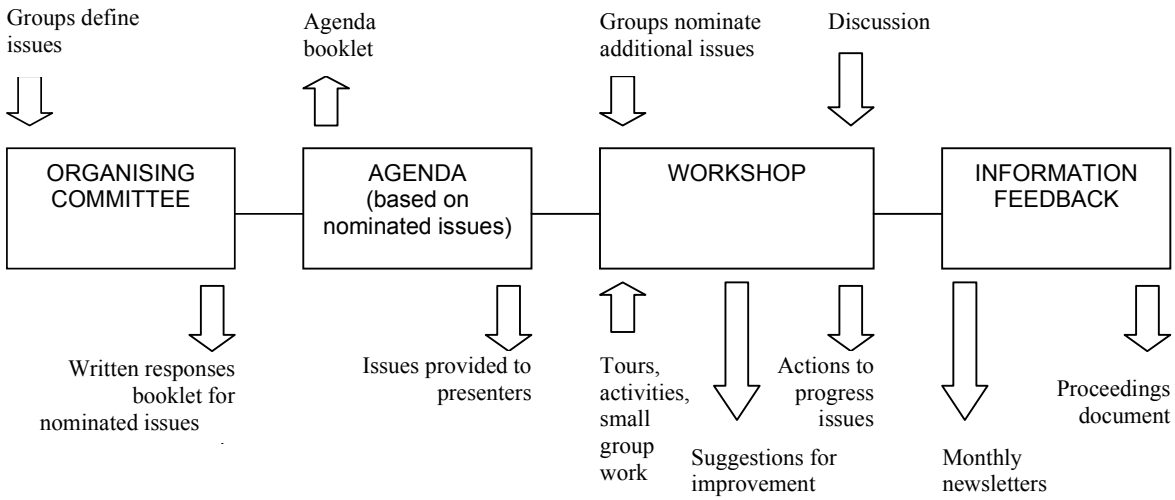

Figure 1. Process used to increase participation in workshops with recreational fishers

ogy. Two case studies, the Freshwater Recreational Fishing and Stocking Workshop and the Future Directions Group, demonstrate the results of community participation in recreational fisheries management.

Case study one - freshwater recreational fishing and stocking workshop

This is an annual workshop attended by members of Queensland's fish stocking groups, recreational fishing bodies and government staff it occurs on a weekend in different locations each year. It was initiated to provide a forum for stocking groups to raise issues and concerns related to the fish stocking program (Hamlyn, pers comm).

At workshops pre-1999 participants were told either what was going to happen or what had already happened with projects and issues related to the program. These workshops developed into a forum of conflict and anger, with a widely held view of scepticism for the government. This generated dissatisfaction amongst stocking groups and lowered morale of government staff. Why did this develop? Community views, ideas and responses were being ignored and the participants were not given an opportunity to provide input into projects and issues associated with the program. This can be considered passive participation-level 1 (Table 1). Understandably, the participants came to the workshop with a preset attitude of mistrust. Low levels of participation in the workshop design contributed to these reactions.

Consequently, the workshop format was reviewed in 1999. A structured process (Figure 1) with an organising committee consisting of government, non-government and community has been established. The committee achieves functional participation-level 5 (Table 1) by providing advice on the workshop design. Continuous interaction with stocking groups is a key feature of the process and allows groups to participate by consultation-level 4 (Table 1) through defining issues and providing feedback.

The result of the new process is significant with a substantial change in participant's attitudes. The workshop now fosters a positive atmosphere with constructive and logical discussion. It is now recognised that all participants can solve issues and develop policies together. The process is reviewed after each workshop to incorporate feedback and ensure continuous improvement.

Case study two - future directions group

Structured interviewing of sectors involved in the fish-stocking program revealed a need to examine, discuss and plan the best approach to the future of the program. To service these needs, a group representing recreational fishing bodies, hatchery operators, charter operators, bait and tackle operators and government agencies was formed in 2001 to set future directions for the Queensland fish stocking program and freshwater recreational fishery.

Encouraged by the success of increased community participation in the fish stocking workshops, similar processes were encouraged by all parties for this strategic planning exercise.

The planning process (Figure 2) encouraged interactive participation-level 6 (Table 1). The group participated in joint analysis of issues that lead to the development of actions to ensure a sustainable future for the program. Group members frequently sourced feedback from their sectors to allow participation through

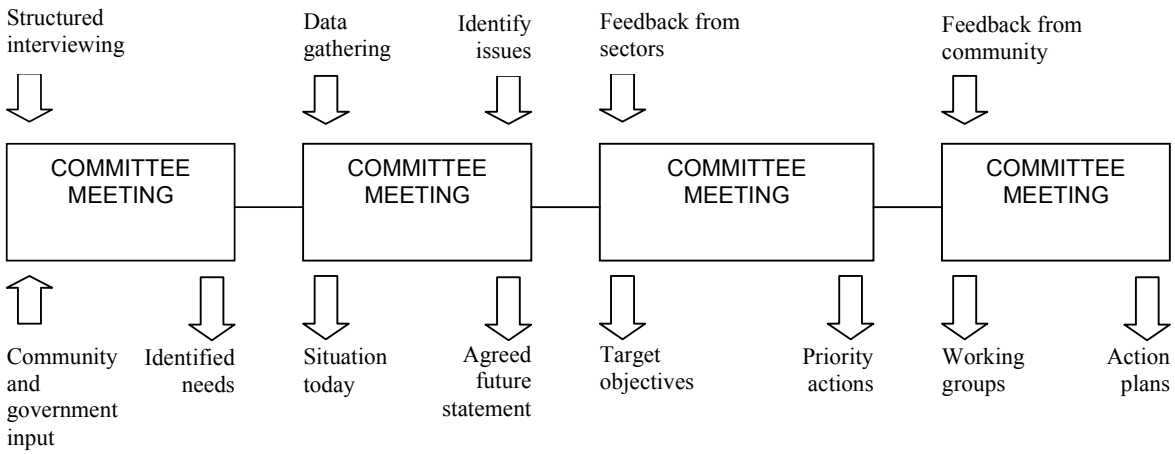

Figure 2. Process used to increase participation in strategic planning

consultation-level 4 (Table 1). Each member was responsible for meaningful contribution to ensure the quality of the outcomes.

This high-level participation process has fostered a progressive development of group dynamics. This has resulted in a positive working atmosphere, constructive discussion and progression of issues through community-government joint working groups.

Conclusion

1. Effective processes use a structured framework for design
2. Participation is consciously considered and decisions are made about levels to be achieved
3. High level participatory processes result in satisfied clients and practical output.
4 High level participatory processes complement fisheries management arrangements

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