

## The political aspects of resilience

Michael Fabinyi

Resource Management in Asia-Pacific Program, The Australian National University, ACT, Australia.

**Abstract.** This study investigates the political aspects of resilience in social-ecological systems. Based on long-term anthropological fieldwork in the Calamianes Islands, Philippines, the study focuses on the diverse and contested human interests that make up social-ecological systems. In the Calamianes, what promotes the interests of one group of people may impact negatively for another group of people, or the ecosystem in which they live. Fishers, for example, have struggled greatly to preserve their patterns of marine resource use, and to oppose various forms of regulation that have been introduced. Following Armitage and Johnson (2006), this study has found that deciding ‘for what and for whom are we trying to promote resilience?’ becomes a critical question. Answering such a question will require decisions that will favour certain elements or resource users within any social-ecological system, and disadvantage others. The study concludes therefore that such political aspects of resilience thinking require greater attention, and that more attention could be paid to negotiations over tradeoffs among various stakeholders, if the resilience concept is to be more widely accepted in policy and management arenas.

**Key Words:** resilience, social-ecological systems, politics, anthropology, Philippines

---

### Introduction

This paper emphasises how greater attention could be paid to the political nature of resilience, and of policies designed to promote resilience. Building on the notion that social-ecological systems are made up of diverse and contested human interests, the paper shows how any attempt to promote resilience for the overall social-ecological system will have differentiated impacts and effects among the diverse elements within it. The paper will show how policies designed to improve social-ecological resilience were transformed, and ultimately rejected, by fishing communities concerned with resisting these policies. Here, there is a significant gap between the particular social and economic interests of fishers, and the resilience of the broader social-ecological system. The paper suggests that resilience must therefore be understood within its political context, and that we need to pay more attention to the need for negotiations over tradeoffs among various stakeholders.

### Methods

The paper takes an anthropological perspective to examine the issues surrounding the political aspects of resilience and social-ecological systems. Research was conducted for twelve months between September 2005 and January 2007 in the Calamianes Islands. The author was based in two locations during this period: Esperanza, a small coastal community within Coron municipality, and Coron town, the capital of Coron municipality and the largest town in the

Calamianes. Coron municipality was chosen to study the political aspects of marine resource management because of the high importance of commercial and small-scale fishing, and the high number of marine resource regulations implemented at the time of fieldwork. Esperanza has a particularly high population of fishers, and several of the MPAs that are discussed in the paper were located in fishing grounds used by fishers from Esperanza. Specific methods adopted for the study included observation at meetings, and numerous formal and informal interviews with a variety of different stakeholders. These included dive operators and divers, fishers of all ages and types, government officials, and non-government organization workers. Interviews with fishers were conducted in Tagalog. In addition to the in-depth data gathered from Coron and Esperanza, the author frequently visited and interviewed residents at other locations of the Calamianes.

### Diverse and contested human interests

Scholars in resilience theory have typically tended to reduce the differences between social and ecological systems. Berkes et al. (2003), for example, state that ‘the delineation between social and natural systems is artificial and arbitrary’. Social science scholars, however, have tended to emphasise the distinctiveness of human systems because of the vital presence of human agency. Social scientists have long affirmed that human relations with the environment cannot be reduced to energy flows; they contain value and agency (Burnham and

Ellen 1979). Because of the complexity of human agency, this means that social systems contain diverse and contested human interests. It follows that resilience has to take account of such contested interests if it is to be practically applied. As Johnson and Armitage (2006) point out, '[f]or resilience to be useful in assessing social institutions and in marking roads to sustainability and social justice, it has to be situated in the context of complex, contested and changing human interests, and the uncertainty of the outcomes of human interactions'.

The Calamianes Islands can be seen as an example of a social-ecological system that contains diverse and contested human interests with regard to the management of marine resources. The main livelihood for the region is a variety of fisheries, both small-scale and commercial. While several fisheries have boomed and busted since the 1970s, the live fish for food trade is currently dominant; an estimate of the value of the trade in the Calamianes for 2002 was about US\$5.3 million (Pomeroy et al. 2005). This fishery has been extremely profitable for local traders and fishers, but has also been highly ecologically destructive, characterised by overfishing and the common use of sodium cyanide (Fabinyi 2007). Stakeholders from the fishing industry have generally attempted to preserve the status quo, with minimal or no regulation of their activities.

Conservationist organisations have been promoting the development of marine protected areas to work with dive tourism, and regulations designed to reform the live fish trade, which included a lengthy closed season. Much government planning and the everyday lives of residents in the broader region can be characterised by contestation over how best to access, exploit and manage these marine resources (Eder and Fernandez 1996).

### **Socio-political interests vs. social-ecological resilience**

While not explicitly framed in terms of resilience theory, both sets of environmental reforms were attempts to promote social-ecological resilience by reducing both the long-term poverty of the coastal communities of the Calamianes, and degradation of the marine environment. The policy brief behind the development of the live fish regulations, for example, stated that '[t]he policy goal is for a sustainable fishing industry in Palawan Province that ensures viable fish stocks, ecosystems and livelihoods for present and future generations' (Pomeroy et al. 2005). Similarly, marine protected areas have been cited as a means of promoting resilience. In the Calamianes, their development was aimed at both maintaining the ecological integrity of particular

marine ecosystems, and at livelihoods through the development of tourism and by increasing the overall level of fish stocks.

### *MPAs*

The ways local fishers understood and responded to many of these MPAs was extremely significant in determining their ultimate outcomes (Fabinyi 2008). Importantly, fishers placed their fishing practices within a social and political context. Small-scale fishers generally represented their patterns of fishing as possessing two key features: it was harmless to the environment, and it was closely tied to poverty. In contrast, tourists and tourist businesses were frequently objects of resentment by fishers, the latter seen as undeservingly profiting from the beautiful reefs of the Calamianes. From this perspective, any regulations to try and reduce problems of environmental degradation should not impact on the small time fishers, who could not afford it. They felt that any regulation that interfered with the activities of small-scale fishers, such as MPAs, would have to be accompanied by financial benefits of tourism. These perceptions meant that some [particularly younger] fishers were sometimes opposed to the creation of MPAs if they were not seen as benefiting local communities, and indeed felt justified in still fishing within them. Fishers would only tend to support MPAs if they did not impact significantly on their fishing practices, focusing instead on taxing tourists. Essentially, the perspective of many local fishers was that MPAs which interfered with existing fishing activities were to be opposed, unless they gave significant benefits in terms of tourism money.

The planning processes for many of these MPAs illustrated this perspective of local fishers clearly. What was notable was the ways in which coastal people refused to allow the MPA to have any impact on their particular patterns of marine resource use. During the planning meetings for example, the core or 'no-take' zones were changed from the original locations drawn up by the marine scientists in the conservation projects to account for the presence of several fish traps owned by local residents. And, in the buffer zones of the MPAs, residents ensured that their fishing practices would be allowed, while actively pushing for the fishing practices of neighbouring communities to be disallowed. For all of the fishers, the MPA had no ecological focus, but was viewed as something to support the community; something that was solely about assisting and protecting their livelihoods.

Another key aspect of this planning process of the MPAs could be seen in the desire among fishers to obtain greater benefits out of the tourism industry in the form of user fees, which

were demanded by participants as an essential component of the MPA. For many coastal residents in the Calamianes, the socio-economic differences between foreign tourists and themselves were stark and inescapable. Foreign tourists were typical of the 'rich foreigner'. Their very presence in a place like the Calamianes, pursuing nothing but leisure activities like SCUBA diving, was proof to locals that they had incredible amounts of money to burn. Versions of refrains such as 'You foreigners throw money away like it is rubbish' were commonly stated assumptions among local fishers. In contrast, the Philippines was understood to be the most poverty-stricken place on Earth.

The development of MPAs in the Calamianes can be seen as stimulating a sense of territoriality over the protected areas. In effect, they produced an artificial form of marine tenure or ownership among coastal communities. The rationale behind fishers' support for these MPAs had less to do with conservation or even fisheries management, but more to do with an expression of political, livelihood claims. Fishers viewed MPAs as a way in which they could address some of the massive inequalities between themselves and those involved in the tourism sector. The claims of fishers about MPAs were based not on a logic of environmental management, rather on a belief that their poverty ought to be the focus of any external environmental intervention. For fishers, no purely technical, scientific management of MPAs would be fair or legitimate without taking into account their claims. As it turned out, these claims favoured the development of particular types of MPAs that had minimal restrictions on local fishers, were loosely enforced when it came to fishers, and involved user fees for tourists.

The status of many of the MPAs in the Calamianes could be seen as somewhat ambiguous. Many were being created, but most of them were marked by serious shortcomings and limitations. Core zones were often minimised as much as possible and seen as a concession to conservationists, buffer zones were adapted to include the fishing techniques and gears of local fishers, and enforcement was rarely effective when it was conducted by locals. Whether the MPAs produce the increase in fish stocks as desired by the conservationists (and the fishers) remains very unclear because of these sorts of shortcomings. So, from this perspective, the proliferation of MPAs is not so much a victory for wise fisheries management or the promotion of social-ecological resilience, but more a way in which local fishers and some sympathetic local government officials were able to successfully advance their interests.

#### *Live Fish Trade Regulations*

The second piece of environmental management that coastal communities responded to was the implementation of a series of regulations designed to reform the live fish trade. These regulations were approved in March 2006 at the provincial level, but the political system of the Philippines requires that provincial laws have to be approved by municipal laws before they are actually implemented in those specific municipalities. So, for most of 2006, the provincial council and the various municipal councils that supported live fishing were locked in a stalemate arguing about the new live fish regulations.

At different points through 2006, the provincial government threatened the municipalities involved in live reef fishing with a moratorium on the renewal of all live reef fishing accreditations if these regulations were not adopted. Finally, in December, after a whole year had passed without the municipal governments creating specific municipal ordinances, the provincial Bureau of Fisheries and Aquatic Resources enforced a ban on all live fish exports from Palawan. Immediately after this, furious lobbying and negotiations occurred. Fishers went to the traders that supported and financed their fishing activities, asking for help. They argued that the imposition of the regulations was extremely unfair; that if there were any problems in the live fish trade it was, according to them, only because of a small number of fishers who used cyanide. The rest of the fishers who used legal methods should not be punished for the actions of a few. They argued that by imposing a closed season and creating MPAs in the best fishing grounds, this would send them back to the poverty-stricken lives they had lived before the introduction of the live fish trade in the Calamianes. In particular, fishers emphasised that the live fish trade was the only significant commercial industry in the Calamianes, and no alternative livelihoods existed that could even come close to the live fish trade in terms of financial benefits. Many people would go hungry, the fishers argued, and other community members also protested at the regulations, claiming businesses such as general stores would also suffer. Gaining national headlines in the newspapers, more than 500 fishers eventually trooped to the capital of the province to protest at the creation of the regulations.

It seemed for a while that the provincial council was not going to back down, and that the moratorium would hold. Eventually however, they gave in to intense pressure by their local constituents. The ban was overturned at the New Year, and shipments were allowed to go through again. Another year and a bit on in 2008, and the

live fish trade continues in Coron with little regulation.

Adger has defined social resilience as 'the ability of communities to withstand external shocks to their social infrastructure' (2000: 361). In the terms of this and other definitions the overall social resilience of fishers was probably quite low, given their high dependence on fishing and their lack of economic flexibility. However, suddenly taking a large part of this livelihood away through powerful regulations would have certainly increased their vulnerability in the short-term at least, no matter how immensely important the ecological justifications were. In both of these cases, fishers were acting against what they perceived as a clear potential shock to their social and economic infrastructures. In a region with few available alternative livelihoods, the introduction of MPAs and a closed season for the live fish trade would have had a significant economic impact. It was therefore in their interests to oppose the live fish regulations and to influence the implementation of MPAs the way they did.

### Discussion

In this context then, a contradiction can be observed between the resilience of the overall social-ecological system, and the interests of fishers and local government. Supported by the municipal government, fishers were able to promote their interests by manipulating the design of MPAs so that their social and economic benefits remained, and by rejecting the live fish trade regulations that would have heavily disrupted their most important economic livelihood. In doing so, such outcomes compromised the ecological resilience of the social-ecological system. This basic contradiction leads to a fundamentally important question about social-ecological resilience — how is it possible to promote social-ecological resilience when any social-ecological system is composed of diverse and contested human interests? Or as Armitage and Johnson ask, '[h]ow do we balance these divergent interests and the interest of ecological sustainability to define the ideal resilient system?' (2006).

Many analysts have argued strongly for the principles of 'good governance', as articulated through the themes of adaptive co-management, polycentric governance, interactive governance and other related terms (Armitage 2008). Lebel et al. (2006), for example, hypothesise that the existence of participation, polycentric and multilayered institutions, and accountable and just authorities can be associated with an increase in resilience for social-ecological systems.

But while in many cases good governance may clearly be associated with resilient social-

ecological systems, in many cases it is not, as Lebel et al. also acknowledge (2006). As Armitage (2008) argues, governance attributes such as those described by Lebel et al. (2006) are 'productive and important, but they are circumscribed by context, and... provide only partial direction for governance innovation. They represent a set of "prescribed" and normative governance values or principles'. During the introduction of the environmental regulations in the Calamianes, for example, attention was paid to various principles of good governance outlined earlier. Indeed, it was the very existence of strong participation by the fishers in the design of the MPAs that led to their ecological compromise. In both instances, governments ultimately were accountable to their constituents and responded to what the majority of the stakeholders wished for, which were MPAs that fulfilled short-term social and economic objectives but had little ecological function, and the rejection of regulations for the live fish trade that would have been beneficial ecologically, but undoubtedly socially and economically damaging in the short-term. This can be seen as an example of governance that is good when understood from the perspective of the interests of fishers and the municipal government, but clearly damaging when viewed from the long-term perspective of the social-ecological system.

Some have lauded the potential of good governance to provide a situation which will be mutually beneficial to all stakeholders. In contrast, perhaps what we need to be more aware of is the inevitability of 'hard choices' in marine resource management (Bailey and Jentoft 1990). Any decisions taken at the scale of the social-ecological system are going to privilege some elements within this system, and alienate others. As in the case of the Calamianes, what may promote resilience for the system as a whole may not always be in the direct interests of particular groups within that system. Therefore, resilience, and activities undertaken to promote resilience at the scale of the social-ecological system, must be seen as a political concept. Resilience, like any other concept for ecological management, including those that emphasise good governance, cannot remove the need for political decisions and negotiations among diverse stakeholders to be made in particular local contexts.

Similarly, practitioners in the field of integrated conservation and development projects have recently emphasized the need for greater attention to and understanding of the goals and interests of all the stakeholders around protected areas, noting that win-win solutions are usually unachievable: 'Once these different interests are identified, clarified, and understood,' they argue,

'the opportunities for negotiation and tradeoffs can be explored' (Wells et al. 2004).

This paper has argued that we need to place greater emphasis on such political aspects of resilience if it is to succeed as a viable and practical management or policy concept. While resilience may be a useful metaphor to understand features of social-ecological systems, focusing on issues at this level of abstraction actually obscures somewhat the diverse social and political relations that actually make up these social-ecological systems, and how resilience affects and is affected by these relations in different ways.

#### Acknowledgements

This research was conducted while I was a Visiting Research Associate at the Institute of Philippine Culture, Ateneo de Manila University, and was funded by an Australian Postgraduate Award at the Australian National University. I thank both institutions for their support. Thanks to Colin Filer, Simon Foale and an anonymous reviewer for helpful comments on earlier versions of the paper, and thanks to all the residents of the Calamianes who assisted in the research.

#### References

- Adger, WN (2000) Social and ecological resilience: are they related? *Progress in Human Geography*, 24:347–364.
- Armitage D. (2008) Governance and the commons in a multi-level world. *International Journal of the Commons*, 2:7–32.
- Armitage D, Johnson D (2006) Can Resilience be Reconciled with Globalisation and the Increasingly Complex Conditions of Resource Degradation in Asian Coastal Regions? *Ecology and Society*, 11(1):2 (online).
- Bailey C, Jentoft S (1990) Hard Choices in Fisheries Development. *Marine Policy* 14:333–344.
- Berkes, F, Colding J, Folke C (2003) Introduction. In Berkes F, Colding J, Folke C (eds) *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge: Cambridge University Press.
- Burnham PF, Ellen RF, eds (1979) *Social and Ecological Systems*. Academic Press, London, New York and San Francisco.
- Eder JF, Fernandez JO, eds (1996) *Palawan at the Crossroads: Development and the Environment on a Philippine Frontier*. Ateneo de Manila Press, Quezon City.
- Fabinyi M (2007) Illegal Fishing and Masculinity in the Philippines: A Look at the Calamianes Islands in Palawan. *Philippine Studies* 55:509–29.
- Fabinyi M (2008) Dive tourism, fishing, and marine protected areas in the Calamianes Islands, Philippines. *Marine Policy* 32:898–904.
- Lebel L, Anderies JM, Campbell B, Folke C, Hatfield-Dodds S, Hughes TP, Wilson J (2006) Governance and the Capacity to Manage Resilience in Social-Ecological Systems. *Ecology and Society* 11: (online).
- Pomeroy RS, Pido MD, Pontillas J, Francisco BS, White AT, Silvestre GT. 2005. Evaluation of Policy Options for the Live Reef Food Fish Trade: Focus on Calamianes Islands and Palawan Province, Philippines, with Implications for National Policy: Palawan Council for Sustainable Development, Fisheries Improved for Sustainable Harvest Project and Provincial Government of Palawan.
- Wells MP, McShane TO, Dublin HT, O'Connor S, Redford KH (2004) The Future of Integrated Conservation and Development Projects: Building on What Works. In McShane TO and Wells MP (eds) *Getting Biodiversity Projects to Work: Toward More Effective Conservation and Development*. Columbia University Press, New York.