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Fisheries co-management, the role of local institutions and decentralisation in Southeast Asia : with specific reference to marine sasi in Central Maluku, Indonesia

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INTRODUCTION

This PhD thesis is the result of my work during my position as associate expert for the Dutch Ministry of International Cooperation (DGIS) from 1996 to 2000 within the framework of the worldwide Fisheries Co-management Project funded by the Danish International Development Agency (DANIDA). The Centre of Environmental Science of Leiden University enabled me to write and compile additional material to complete this thesis.

The Fisheries Co-management Project is a collaborative research project of the International Center for Living Aquatic Resources Management (ICLARM) in the Philippines (now the WorldFish Centre in Penang, Malaysia), the Institute of Fisheries Management and Coastal Community Development (IFM) in Denmark, and National Aquatic Research Partners (NARS) in Southeast Asia and Africa¹. The project was initiated in 1994 and phased out in 2004. This collaborative project was based on a mutual interest to gain practical experience in research in fisheries co-management, to demonstrate its applicability as a sustainable, equitable and efficient management strategy, and to develop models for use and adoption by governments, fishing communities, NGOs and others. The overall purpose of the Fisheries Co-management Research Project was to determine the prospects for successful implementation of fisheries co-management strategies.

As part of the Fisheries Co-management Project, with funding assistance from IDRC (International Development Research Council of Canada), together with Indonesian research partners from Yayasan Hualopu and Patimura University², a study was carried out on *sasi*, a local traditional natural resource management system in Central Maluku, Indonesia (Fig. 1). The overall objective of the research project was to evaluate this community-level resource management and learn from it in order to develop better models for the future (Pomeroy and Simanjuntak 1997).

¹ In Southeast Asia participating countries were: the Philippines, Indonesia, Vietnam, Thailand, Malaysia and Bangladesh. African partner countries were: Senegal, Benin, Cote d'Ivoire, Malawi, Zambia, Zimbabwe, Mozambique, and South Africa. Similar research has also been carried out in the Caribbean.

² We worked in an inter-disciplinary team with as principal co-researcher Irene Novaczek (PhD phycology and marine biology). Ansye Sopacua (BSc chemistry) was translator and carried out the interviews on management structures. Marcus Tatuhey was responsible for data input and analysis. The parts of the research projects presented in this dissertation are the ones where I was the principal researcher (unless stated otherwise).

RATIONALE OF THE STUDY

Worldwide, fish stocks are being over-exploited (FAO 2001; FAO 2003). The productive and highly diverse coral reefs in Southeast Asia are in a critical state (Amor 2002a; Amor 2002b). For many poor Asian communities aquatic resources represent a crucial rural safety net that not only bolsters food security, but also gives families a way to earn extra cash selling on the local markets. In countries such as Indonesia and the Philippines, close to 50% of people's animal protein intake comes from fish consumption. Degradation of natural resources, reduced access to markets and lack of political power to reverse these processes are a severe threat to people's livelihoods. Increasing competition and conflict over limited resources further stress fisheries management systems.

Ongoing over-exploitation and degradation of natural resources causes governments to rethink their management approach. Top-down, centralized government control over fisheries has led to crises in fisheries worldwide as it created the conditions under which fishers maximized their efforts (Kearney 1984; Jentoft 1989; Pinkerton 1989; McGoodwin 1990). In many cases the government lacks the ability to effectively govern resources and enforce the rules. As a result, compliance to regulations and a sense of ownership over resources is low. The basis for government control was Hardin's (1968) 'tragedy of the commons' which left no space for local property rights over resources. Over-exploitation, increasing fishing effort, and conflicts over access lie at the basis of depleting fisheries. In search for solutions and better ways of governing resource use, new approaches have been developed of which co-management is but one of the strategies. Co-management refers to the sharing of management authority and responsibility between resource users and the government. It involves the devolvement of management authority to local and lower government levels, and the creation of institutional arrangements including rights and rules. Co-management is considered to represent a more democratic, equitable and efficient governance system as it involves participatory and collaborative processes of decision-making and power sharing, and a more equal sharing of resource benefits (Pomeroy 1994; Pomeroy and Berkes 1997; McCay and Jentoft 1996; Ostrom *et al.* 1999; Kuperan *et al.* 2003).

Clearly defined property rights are an important tool for fishers to exclude others and to be able to enforce rules and regulations concerning the fishery. Co-management therefore often includes the transfer of responsibility over natural resources to local communities (Jentoft *et al.* 1998; Jentoft 2003; Raakjaer Nielsen *et al.* 2004). Under pressure of large international organisations, supported by NGOs, and as a result of civil demands, central governments all over the world are now supporting decentralisation as a way to

transfer authority to lower government and local levels in order to improve resource management (Pomeroy 2001).

SASI

Coastal villages in Central Maluku claim de facto rights of access and withdrawal over fairly extensive areas of both land and sea through a set of rules and regulations called *sasi*. *Sasi* is nested in *adat* which lays down the basic ethics and codes of conduct and is an intrinsic part of the culture. *Sasi* offers an important research opportunity because it is one of the few (if not the only) long enduring local resource management systems in Asia (Zerner 1994a; von Benda-Beckmann *et al.* 1995). While land *sasi* (*sasi darat*) controls and manages agro-forestry, marine *sasi* (*sasi laut*) deals mostly with the fishery, i.e. sedentary marine organisms and pelagic fishes found in the waters close to shore. *Sasi* also applies to social behaviour. Fishery related rights and rules usually apply to coastal waters facing a village, bay, coral reef ecosystem, or other areas having easily recognized boundaries. However, while in some villages of Maluku *sasi* was still functioning, in others it was growing weaker or had disappeared entirely. The extent of *sasi* and how quickly, where and why it weakened was not clear.

The government of Maluku realized that in some parts of the province, village people were more likely to comply with traditional management systems than with formal regulations. *Sasi* institutions as well as other traditional local customs, however, were not reflected in national and provincial laws and policies. Without acknowledgement by the government, fishing communities were not able to defend their institutional arrangements and hold off the slow demise of their management systems. More recently, the situation is changing as the government of Indonesia has decided to devolve management authority over natural resources to lower levels. However, while government policy makers know that local management exists, they lack information on how well these systems perform. This research project went beyond the descriptive studies that have already been carried out on *sasi* and undertook a quantitative performance analysis. Information about the performance of *sasi* potentially forms the basis for changes in policy to support, maintain and develop local culturally appropriate and effective forms management.

As a village-level institution that has roots in the local culture, *sasi* is not a co-management structure. However, research on *sasi* helps to understand how traditional local systems change and adapt over time, providing insights that are critical for the design of new systems as is provided under the new decentralisation laws. The results can be of use to both the government of Indonesia, the fishers and local resource users and other parties involved in

the process. The results are also useful to a worldwide audience interested in the design and implementation of local (co-)management systems.

Research objectives of sasi were:

- 1 To identify the extent of operating *sasi* systems and practices in Central Maluku Province.
- 2 To describe the *sasi* institution using the Institutional Analysis Framework.
- 3 To measure the performance of *sasi*, i.e. impacts in terms of equity, efficiency, social sustainability and biological sustainability.
- 4 To investigate which mechanisms positively enhance the resilience of the *sasi* institution.
- 5 To describe the legal framework and government institutions at work with local resource management and the role and functioning of *sasi* under this framework.

This study covers the institution and changes until 1998 when a civil strife broke out that has highly impacted Central Maluku and, unavoidably, also the *sasi* institution. The period 1998-2004 was one of major clashes between Muslim and Christian populations, and the destruction of mosques, churches and whole villages throughout the islands. Ambon Island became divided into a Christian and Muslim part and thousands of people fled to refugee camps. In the end, over 5000 people lost their lives. The role of police and army has been unclear and questionable at the least. The cause of the conflict is unclear and various explanations are given, including ignition by outside Muslim extremist groups, e.g. *Laskar Jihad*, while local gangs and groups allegedly further fuelled the violent outbreaks. Aside from some scattered information (see also Chapter 10) the long-term effects on the social structure and culture in Central Maluku, including *sasi*, are not clear. Information on the legal framework and changes in the context of decentralisation are up to date until January 2005.

DECENTRALISATION

In response to a call for better management and a decrease in global fish production, there is a widespread move towards decentralisation of management authority to regional and local communities (Pomeroy 2001). Decentralisation is generally accepted as the way forward, but has various results. In countries like the Philippines, decentralisation has led to positive results and sustainable resource use. Current experiences in Indonesia on the other hand show massive resource exploitation by local authorities, especially in forest areas. Due to these negative experiences there is a tendency to turn away from decentralisation (von Benda-Beckmann 2002, Ribot 2002). This would be very unfortunate as, despite the current setbacks, in the longer run

decentralisation presents the highest hope for establishing the conditions for sustainable resource use and a more equitable and efficient social political system. When assessing the current results of the decentralisation process, it is also important to change the point of view and compare the situation the past so that the important changes that *have* been made are done justice, especially in a country like Indonesia that is undergoing a major transformation from an authoritarian centralised state to a more democratic regime.

In order to make proper assessments, it is important to carefully document the features and process of decentralisation including the types of power, authority transferred, and the accountability structures. It is also interesting to analyse the role of local actors and the formation of new elites. Through an analysis of the potential pitfalls and opportunities, some key factors can be distilled that may, on the longer term, render decentralisation efforts successful.

Research objectives of decentralisation were:

- 1 To describe the processes of decentralisation in Indonesia and the Philip - pines.
- 2 To identify the obstructions towards true transfer of power.
- 3 To identify the lessons learned and see how they apply to Indonesia.

CONDITIONS AFFECTING SUCCESS OF CO-MANAGEMENT

Over the past 15 years, a growing number of projects and coastal manage - ment initiatives has been documented and assessed in terms of success. In 1999, the first 5-year phase of the international Fisheries Co-management Research Project came to an end and all the sites in Southeast Asia that were part of the project were evaluated in order to identify the principles and conditions that facilitate fisheries co-management at the household, community and supra-community level, i.e. government, including the legal framework and administrative structures.

While co-management may not be a viable alternative fisheries management strategy for all countries and fishing communities, an evaluation like this establishes in what situation and under what circumstances it proves to be a sustainable, equitable, and efficient management strategy. Sought are rec - ommendations on how fisheries co-management can be successfully imple - mented, as well as methodologies and guidelines.

Research objectives of conditions for success were:

- 1 To investigate under what conditions co-management is a viable fisheries management strategy.
- 2 To identify important principles that support co-management.
- 3 To identify the policy implications.

MEASURING PROJECT SUCCESS

Within Southeast Asia, the government of the Philippines has been a leader in decentralising management of natural resources to the local level. Between 1984 and 1994 more than a hundred community-based resource management (CBRM) projects were undertaken. The time, funds, and collective effort put into these projects accumulated a wealth of valuable knowledge. However, the results in some ways were disappointing: less than 20% of the projects were evaluated as being successful (Pomeroy and Carlos 1997). Interestingly, the project participants themselves did not perceive these projects as failures at all (Pomeroy *et al.* 1996). Apparently, there was a discrepancy in the perception of success between the project implementers and the recipients.

Project activities involved, amongst others, alternative livelihood programmes, installation of protected areas, and technology for increased fish production. The project implementers set as minimum criteria for project success that (1) the community organisation still existed and that (2) at least a single project intervention was maintained after the project had terminated. For many project sites this was not the case. Why the majority of projects failed, was not clear. What clear is that the indicators that were used failed to measure the things that actually *were* achieved and appreciated by the local population.

Research objectives of measuring success were:

- 1 To identify project failure and project success.
- 2 To explain the discrepancy between the perceptions of project staff and beneficiaries on project success.
- 3 To design a methodology that captures the project impacts from both the insider and the outsider perspective.

THIS THESIS

After the introduction, theoretical framework, and methodology, this thesis presents:

- A study of *sasi*, a local traditional resource management system in Central Maluku, including presence, performance and institutional resilience, i.e. the ability of an institution to survive over time.
- A case study of the, at the time, best functioning *sasi* institution of Nolloth on Saparua Island to show the performance and potential for resource management.
- An analysis of institutional resilience of *sasi* and the mechanisms behind it in order to provide building blocks for newly to be established management institutions.
- An analysis of the legal framework around *sasi* and natural resource management as it was in 1998 with an update of new laws as a result of the downfall of Suharto and the current move towards decentralised management.
- A description of the decentralisation process and the potential for coastal resource management in the Philippines and Indonesia.
- A distillation of factors that contribute to project success on the basis of research experiences in Southeast Asia as part of the Fisheries Co-management Research Project.
- A methodology to assess project success from the participants' perspective and in more qualitative terms based on an evaluation of over a hundred community-based resource management (CBRM) projects in the Philippines.

This thesis consists of several published articles and book chapters that have been edited into 'new' chapters. The overlap in information from the different articles has been edited out as much as possible, yet, some chapters will contain similar information for which I apologise. Some chapters are parts of the research report I wrote with Irene Novaczek, Ansye Sopacua and Marcus Tatuhey³. While they have done most work on the legal and political context that are part of Chapter 8, I like to take credit for the overall project design, the case-studies (Chapter 5) and study on institutional resilience (Chapter 7). Chapters 4 and 6 were a collaborative effort. Chapter 11 on conditions for success was written with other ICLARM staff working in the various sites in Southeast Asia and where I contributed information and insights from Indonesia. All the other chapters spring entirely from my own brain.

³ Novaczek, I., I.H.T. Harkes, J. Sopacua, M.M.D. Tatuhey (2001). An institutional Analysis of Sasi Laut in Maluku, Indonesia. Technical Report 59. ICLARM, Manila.

