

HOW DISTRIBUTIONAL CONFLICTS THEORY EXPLAIN FACTORS AFFECTING INSTITUTIONAL CHANGES IN CORAL REEF GOVERNANCE? LESSONS LEARNED FROM GILI INDAH VILLAGE, WEST LOMBOK INDONESIA

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ABSTRACT

This article aims at explaining factors affecting the successfulness of coastal communities of Gili Indah in constructing a governance structure of coral reef management. Coral reef management in this region has changed from an ineffective state regime to a local governance. From the perspective institutional economic theories, the emergence of a governance is an institutional change phenomena that are affected, among others, by actors' characteristics such as organizational experiences, opportunistic behavior, environmental awareness/perception, planning horizon, bargaining power, technological skill and certainty; and trust, distrust and reputation. Using a distributional conflict theory of institutional change, the results of this research can draw a conclusion that institutional change process of coral reef management in the locality was strongly assumed affected by those factors.

Keywords: institutional change, governance structure, credible commitment, distributional conflict, power resources

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INTRODUCTION

Institution is defined as constraints devised to shape political, economic and social interactions (North, 1990). Far before this definition, Schmid (1972) has defined institutions a set of ordered relationships among people that define their rights, exposure to the rights of others, privileges and responsibilities. Schotter (1981) viewed institutions as regulations on behavior that are agreed to by all member of a society, and which prescribe behavior in specific,

recurrent situations. Ostrom (1990: 51) defined institutions as a set of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained, what aggregation rules will be used, what procedures must be followed, what information must or must not be provided, and what payoffs will be assigned to individuals dependent on their actions. Hamilton (1932) defines institution from the perspective of sociology as a way of thought or action of some prevalence and permanence, which is embedded in the habits

of a group or the customs of a people. A similar definition comes from Knight (1992: 2), who considers an institution to be a set of rules that structures social interaction in particular ways.

By its form, written and unwritten, institutions can be classified into informal and formal. Informal institutions like social norms, customary laws, habits and customs are commonly unwritten. These come into existence unintentionally or evolve spontaneously (North, 1990; Knight, 1992). Informal institutions play an important role. In a chaotic or crises situation due to, for example, war, they can be persistent as rules that sustain a social construction. A lot of ethnic groups in the world such as Jews, Kurds and countless other groups have persisted through centuries, despite endless changes in their formal rules due to wars, revolutions and military occupation. A state may be in ruin, but the social norms, culture and habits embedded in its communities may continue to exist (North, 1990: 35).

Different from the first, formal institutions generally have a written form. These include political rules, economic rules, contracts and agreements. Formal institutions have taken a unidirectional move from formerly informal ones. Such changes are a necessary response of people who are moving from less to more complex societies, which need standardized weights and measurements, and, because they may face more complex disputes, naturally need to formalize constraints in writing (North, 1990).

2. Distributional Conflict Theories of Institutional Change

With respect to institutional change, Knight (1992) analyzes it from the perspective of distributional conflict theories. These theories of institutional change are principally based on the assumption that each strategic actor in an action situation has different interests and power, which dispose the actors to become involved in conflicts of

interest. To resolve the conflict, the actors attempt to find some solution according to power resources that they have. The actors who can control power resources such as information, political access, capital, and skill tend to control and influence the process of institutional change and, finally, resolve conflicts by changing or creating rules that favour their interest. The target of such change is to satisfy the interests of individuals, not to achieve collective interests (Knight, 1992: 146). The change processes themselves can emerge either intentionally or merely as a consequence of the pursuit of strategic advantages.

Distributional-conflict theories of institutional change are a universal theory in the sense of its capability to explain institutional change at all institutional levels, and applicable to both formal and informal institutions. Changes in informal rules can be accomplished intentionally, due to different interests and asymmetries of power (Knight, 1992: 147). According to Knight (1995), changes in the distribution of power give self-interested actors an incentive to change their institutional setting toward one that favors their interest. He further emphasized that the new institutional setting reflects the self-interest of the economic actors, regardless of whether the change will generate a more efficient institution or not. Knight (1992) contends that it is better to explain the on-going development of social institutions as a by-product of conflict over distribution gain than as a Pareto-superior response to collective goals or benefits.

Regarding power, Knight (1992) defined it as people's ability to affect other people to act in accordance with their wishes. Let us say that 'A' is more powerful than 'B' if A intentionally or unintentionally can force B to adopt a rule whose main idea comes from A or which is made by A, even though, in the end, the benefit of the institution may be distributed to both A and B. The actors or groups of actors who possess more power will have a better bargaining position to force the weaker groups to comply with institutional

rules, whether they want to do so or not. They respect these institutional rules not because they agree with them, nor because the rules give benefits to them, but simply because they cannot do better than to do so.

Having discussed asymmetric power's influence on institutional change, the question now is what kind of power needs to be possessed by strategic actors in order to influence institutional change or to create a new social institution? With respect to this, Knight (1992: 175) offered several key components, which he calls "power resources". These include information, organisability, credible commitment and sanction power.

- (1) Information is needed in order to compete. Strategic actors who endeavor to control information and are familiar with the expectations and strategy of those with whom they interact have a greater potential to win the competition. With the mastery of information, they can choose a strategy that can maximize their individual benefits. In other words, they can change an established institution or create a new one in accordance with their wishes.
- (2) Organisability is important primarily at the political level because they can influence decision-making process. The actors who have good organisability will likely have better bargaining power than those who do not. They can better organize and act collectively.
- (3) Credible commitment is a believable attitude demonstrated by actors that they will in fact do what they claim to. Actors with good credibility of commitment, in other words those with a good reputation, will more easily convince other actors. With this power resource an actor can determine the choices of other people (Knight, 1992).
- (4) Sanction power is a mechanism used to enforce external institutions, that is, a threat of sanction by a third-party enforcer. It is a common feature of many social institutions, such as state or powerful group

enforcement of sanctions against prohibited actions. With this power, a group of actors can force others to accept their alternative. It can be employed so as to discourage a certain strategy of actors. To be a successful deterrent, the sanction must be sufficiently severe so as to reduce the potential benefit of violating the institution, to the point that this is no longer the dominant and preferred strategy (Knight, 1992).

MATERIALS AND METHODS

This is a case study conducted in Gili Indah village, West Lombok, Indonesia. The data collection took place in May and June 2003, carried out using a triangular technique: a combination of interviews, direct observations and document analysis. Interviews involved 42 respondents from different stakeholders, applying semi-structured and open-ended questionnaire, while the observations were conducted through participating in community activities that relate to the research objectives. Books, journals, official archives, project reports, personal and official documents were also a valuable information sources. The collected information was then analyzed qualitatively using mainly distributional conflict theory of Knight (1992).

RESULTS AND DISCUSSION

Actors and Stakeholder Involved

Institutional change in coral reef management in Gili Indah Village, West Lombok, involved six main actors. These actors are regarded as being both direct and indirect participants in the local level governance structure. They are: (1) fishermen; (2) tourism business operators (TBOs), represented by Ecotrust (Trawangan Diving Company Association) and APGA

(Association of Gili Air Entrepreneurs); (3) SATGAS; (4) village administration; (5) Natural Resources Conservation Agency (BKSDA); (and 6) the Convention Board of North Lombok Fishermen Societies (LMNLU). The process of institutional change and self-governance in the management of the coral reefs of Gili Indah rely upon these actors. Therefore, detailed identification of the actors is necessary.

Using this theoretical framework of Hagedorn et al. (2002) and Knight (1992) as guides, the predominant attributes of actors involved in coral reef use and management in Gili Indah are identified as follows: environmental experience; opportunistic behavior; environmental awareness/perception; planning horizon; bargaining power; technological skills and certainty; and trust, distrust and reputation (**Table 1**).

Table 1: Actors Involved in Coral Reef Management and their Characteristics

Actors	Predominant attributes						
	OE	OB	EA/P	PH	BP	TS	T/R
Fishermen	Low	High	Low	Short	Low/High	Low	n.c
TBO (Ecotrust, APGA)	High	n.c	High	Long	High	n.c	Good
SATGAS	High	n.c	High	Long	High	n.c	Good
Village administration	High	n.c	High	n.c	High	n.c	Bad
BKSDA	High	n.c	High	Long	High	n.c	Bad
LMNLU (Extern)	n.c	n.c	n.c	n.c	n.c	n.c	n.c

Notes: OE: Organizational Experience; OB: Opportunistic Behavior; EA/P: Environmental Awareness/ Perception; PH: Planning Horizon; BP: Bargaining Power; TS: Technological Skill; T/R: Trust/Reputation; [NB: 'n.c' means not characterized]

Fishermen

In order to adequately understand the fishermen's attributes this subchapter begins by highlighting the predominant livelihood patterns of Gili Indah residents. Long before tourism industry entered the region, fishing and farming were the two main livelihoods of the Gili Indah community. However, since tourism came there in 1977, the livelihood pattern has shifted, from fishing and farming to tourism-related business or work associated with tourism. The shift was inevitable, given that fishing activities became more difficult parallel to the decrease of the fish stock and the increase of fishing costs which are a consequence of the requirement to move from one fishing ground to others in order to reap a good catch of fish. At the same time, tourism, which grows rapidly, offered greater hope and certainty for the future, so that it became

more welcome in the hearts of most Gili Indah villagers. Thus, Gili Indah was rather rapidly changed from a fisherman to a tourist village.

In spite of the change in livelihood pattern, not all fishermen are adaptable to the new livelihood. Some of them continue to retain fishing as their main livelihood. From the 693 families residing in Gili Indah village, 150 are fisherman families¹, both as juragan (owners or shareholders) and sawi (workers). Looking at the number, they are a minority; however, they cannot be easily ignored. They are descendants of village founders who were also fishermen. Therefore, their claim to be the main beneficiaries of the available marine

¹ Up to 2002, according to logs of the village administration, there were 100 fisherman families living in Gili Indah; however, the fieldwork revealed that 150 fisherman families reside on the island.

resources, as illustrated in the statements below is understandable.

“If we are not allowed to fish here, to get our living from the coral reefs, where must we move to? We have no other choice for living. We, fishermen, inherited the islands along with their resources. Thus, we have more rights than tourism operators who came later. Why should we move? We will never leave these islands and *will retain our inherited livelihood*”(Hidayat, 2005)

Due to their strategically strong position in the social setting, the fishermen can significantly affect processes of institutional change and local governance construction in coral reef management. As shown in Table 1, these actors are characterized by low organizational experience, opportunistic behavior, low environmental awareness or misperception regarding coral reef resources, short planning horizon, low bargaining power, and low technological skill. Those attributes may affect their potential role in governing coral reef ecosystems in the locality in a way which we will now explain in detail.

a. Lack of organizational experiences

Classified as traditional fishermen, all of Gili Indah fishermen apply various artisanal fishing devices. They operate either small-sized outboard motor boats less than 5 Gross Tons (GT) in weight or non-motorized small boats of similar weight. Up to the middle of 2002, they were grouped by the fishing tools they used. There have been five groups parallel the five kinds of fishing devices they commonly use.² Each group has several subgroups;³ therefore, it is not surprising that

² The fishing devices include: (1) Muroami, (2) Jaring Sret/Jaring Gae, (3) Mogong, (4) Pancing, and (5) Bagang boats.

³ Consider the groups are A, B,..., G (names of fishing devices). There could be A1, A2,...An, B1, B2,..., Bn, G1, G2...Gn.

the fishermen were distributed over 47 groups beyond 68 anglers and 81 archers.

Such unorganized situation had lasted for a long period of time. But it just stopped on 15 December 2002 after the formation of the Gili Indah Fisherman Association shaped to help solve a serious physical conflict between TBOs and Muroami users that erupted on 17 August 2002.⁴ This long unorganized situation of fishermen has contributed to their lack of organizational experience, which in the end has become a source of fisherman powerlessness in bargaining with public politicians and other actors. At the local level, as expressed by the head of the Gili Indah Fisherman Association, before this association existed, fishermen could not negotiate with other actors to deal with local issues, moreover express their opinion or interest to the public policy makers whose action affected their interests. In other words, they were powerless to act and struggle for their interest collectively. A fisherman involved in a meeting in the village office, for instance, could not claim himself as a representative of all fishermen of Gili Indah. He could not talk on behalf of all fishermen. This condition had lasted for a long period; however, in the past, it seemed not to be a problem because the problems

⁴ Since the presence of the tourism industry in the region, physical conflicts between fishermen and TBOs have almost occurred several times. The interviewed fishermen expressed that physical conflicts almost erupted in July, 2000, and August, 1998. However, these could be stopped due to kinship relation among the conflicting parties. According to respondents, the physical conflict that erupted on 17 August, 2002, was the first real physical conflict. This occurred when they were fishing, as usually applying Muroami, within a certain area near Gili Trawangan, when suddenly they were attacked by SATGAS officers. The SATGAS itself admitted this action. They did so because they considered that the fishermen were fishing within a prohibited zone (zone of diving) according to local awig-awig.

themselves were simpler than those they face today.

b. Distrust and credible commitment

In addition to a lack of organisability, fishermen also developed a bad image (impression) as a distrusted group from financial institutions (banks). The distrust is not because they are morally bad, but because their livelihood (fishing) is regarded to be economically risky and uncertain, a characteristic related to the physical qualities of the fishery resources. Banks cannot lend them capital if they are unsure, for instance, when and how they can return it. In other words, the fishermen cannot make a credible commitment particularly on this matter. This has caused them to become powerless to access sources of capital. There is no a single bank in West Lombok that is willing to lend money or other forms of capital to them, including Folk Bank (Folk Bank of the Republic of Indonesia, BRI), which should serve the interests of farmers, fishermen, and other small-scale economic actors.

In order to satisfy their needs for capital (boats, motors, nets and so on) they have had to make use of private or personal lenders with the consequence of having to pay higher interest than that offered by banks. Or, they expect project aid from the government or an international donor organization which usually discontinues. This situation has caused fishermen not only to continue to be a dependent and marginalized group, but also has reduced their bargaining power. This low bargaining power could also be seen when the coral reef ecosystems were established as a conserved area. The shifting of the status from non-conserved to conserved area has of course reduced or constrained their fishing space, which clearly could damage their economic interests.

c. High solidarity

Even though, on one hand, they lack of organisability, on the other hand the fishermen have good inter-individual relationships which is here restricted to relationships among peers. Among them, there is high solidarity. For example, when they witness fishermen applying blast-fishing methods they will not inform on them to coast guard officers. They do not want to hurt or cause their colleagues get into difficulties. The solidarity among them is considered as a power resource which to a certain extent can increase their bargaining power and affect village-level policies. The ineffectiveness of the state property regime in this location could be, among other factors, caused by this power.

d. Information

Fishermen also have good information on the situation of Gili Indah village. They know very well the situation of the islands because they are native inhabitants. This sense for the surroundings has even caused a governmental policy imposed to them, i.e., the patrol of Gili Indah waters by the navy, to become ineffective. This is so because fishermen, when they are fishing illegally and have been found out, know exactly where they have to go to deceive pursuing navy officers. They also know about their rights over fisheries and coral reef resources as registered fishermen. This also can increase their bargaining power and influence local level policies.

e. Short planning horizon

Mostly, Gili Indah fishermen are classified as subsistence fishermen who fish only for meeting primary daily needs. However, it often happens that the income is not sufficient for these needs. Muroami (the main fishing device among fisherman in Gili

Indah), net of operational cost, could only generate some Rp15,000, equal to around \$1.8, per week (six work days). This low income has a negative impact on the quality of their children's education. Gili Indah fishermen generally cannot send their children to pursue higher level education. After completing elementary school the boys of fishermen immediately become fishermen themselves. They do so to lower the economic responsibility of their parents.

Poverty has driven them to think and act pragmatically. Their incapability of generating an alternative livelihood has made fishermen tend to maximize present benefits from the coral reefs. This becomes a more serious problem because at the same time they lack technological capacities. Their strong dependence on the resources does not, however, prevent them from exploitative behavior, which could be caused by, among other reasons, the absence of exclusive property rights. This has caused the fishermen not to have economic certainty about the future. An interviewed fisherman was reluctant to invest in coral reef protection (conservation, management) because he had no guarantee of getting returns from what invested. He was also unsure whether his children would inherit the resources. Therefore, he maximizes the present benefits from the coral reef ecosystems like other fishermen do.

f. Environmental Awareness and Misperception

The Gili Indah community (not only fishermen) has differing levels of awareness concerning coral reef ecosystems. According to their level of awareness, the community members can be classified into three groups: (1) Groups who realize that their livelihood and future life are dependent on the reef ecosystems. Belonging to this group are TBOs or those whose livelihood either directly or indirectly depends on the tourism industry. (2) Groups that have less

environmental awareness and misperception. They are, for example, blast-fishermen who think that there is no interrelatedness between coral reef destruction and fish abundance, and believe that fish will never become scarce, in spite of coral reef disappearance. The following statements of two fishermen may show the environmental awareness and misperception: "...*We have been fisherman for a long time. We only know this for a living as did our fathers. Since we have become fisherman more than 25 years ago, fish is always available here. God supplies it for us as well as for the next generations, in spite of coral reef extinction...*" (Hidayat, 2005). (3) Groups that are aware of the importance of the reef as a fish habitat; however, the awareness does not drive them to take any real safeguarding measures. When witnessing people applying destructive fishing methods, members of these groups will not inform the marine security officers. The following interviewed fisherman's statements illustrate this mindset:

"I know some fishermen who sometimes apply bombs. I know their action may damage coral reef ecosystems. However, I do not have the heart to report them to the police or marine guard. They do that for a living..." (Hidayat, 2005).

g. Opportunistic behavior

There are three categories of opportunistic behavior which are often found in CPR uses, i.e., free riding, rent seeking and corruption (Ostrom, 1997). (1) Free riding is the behavior of people who are willing to enjoy the benefits of an investment which they themselves have not made any contributions toward generating them. For example, one can enjoy environmental cleanness while not contributing toward producing this outcome. (2) Rent seeking is an effort to influence the decision-making of both

government organizations and organizations at the local or donor level, so that the decision made is beneficial for the rent seekers. If the effort is successful, they will expand it so that each decision will not be free from their influence, which is clearly beneficial to them. (3) Corruption can include bribe payments and other kinds of illegal payment which can change the distributional consequences of a bargaining outcome.

This study did not reveal any corruption and rent seeking practices among Gili Indah fisherman. The interviewed fishermen, members of a fisherman association, admitted that there was no indication of misusing funds of the organization by its elites. Although corruption and rent seeking are not found among Gili Indah fishermen, this does not mean that the community is free from opportunistic behavior. The fishermen could be considered to be practicing free riding behavior because of their lack of involvement in managing and protecting coral reefs while almost all TBOs such as hotel owners, restaurants, cafés, diving companies, kiosks, Cidomo drivers have given their respective contribution. TBOs and others whose livelihoods are related to the tourism industry on the islands collect money for funding coral reef protection. This action is beneficial not only for the TBOs but for fishermen as well. Meanwhile, fishermen, in particular Muroami user, do not give any contribution as the others do. Such attitude among fisherman could be affected by their claim as the “owners” or the true beneficiaries of the resources. This could also relate to their perceptions on coral reefs and fish abundance, as already mentioned above.

h. Reciprocity and Trust

Reciprocity is an individual strategy for facing social-dilemma situations. It is an individual reaction to other individual actions, either negative or positive. The most commonly found reciprocity is tit-for-tat action (Ostrom, 1997). Such reciprocity is a common characteristic of the Gili Indah community, not only restricted to fishermen but also covering other social groups. It exists in their daily life. For example, if family A invites family B to attend a wedding ceremony of family A, family B will feel it necessary to invite family A once they have similar kind of occasion. Reciprocity is an important element for individuals who want to have a good reputation as a person considered who can work in collective action without corruption. Thus, many individuals use reciprocity as a short-term investment to gain a long-term benefit (Kreps, 1990; Miller, 1992).

The Gili Indah community actually possesses a good reputation as a cooperative and trusted community. It is quite difficult for them to violate an agreement made through a democratic process, moreover if those involved in the making of the agreement feel satisfied. The agreement between Ecotrust (a diving company association) and Muroami users made in May 2003 could be seen as evidence of this. The interviews with both parties show the existence of trust. They believe that each will not cheat the other.

i. Lack of technological skills

Fishermen lack technological skills. The fishing technology they apply is classified as traditional fishing devices. They usually employ outboard-motor boats which only can be used to sail within inshore waters.

Tourism Business Operators

Gili Indah village offers eco-marine tourism services such as clean beaches, coral reefs of pristine beauty, ornamental fish, and so on. In order to support the tourism activities, TBOs develop various support business and recreational facilities, such as diving companies, hotels, bungalows, restaurants, cafés, ticket counters, money changers, bicycle rentals, internet cafés, telecommunication cafés, and traditional handicrafts.

Each business group has an association. However, generally they all take shelter under two organizations influential on coral reef management practices at the village level, i.e., APGA and Ecotrust. SATGAS, acting as a marine safeguard, actually has a close link to TBOs. In comparison to the fishermen, in particular, these groups generally are characterized by a longer planning horizon, better organization experience, higher environmental awareness, and have other power resources which are important for affecting policies on coral reef management (see Table 1).

a. Long planning horizon

TBOs have high expectations regarding coral reef resources. They consider this ecosystem as the only livelihood source that should be kept alive and handed on the next generation. Accordingly, they seek as much as possible to maintain and protect the coral reefs from any kinds of activities which potentially bring about their destruction. The success of reef management is identified by the disappearance of destructive fishing, which has generated a new feeling of hope for the TBOs. Moreover after they have obtained an exclusive right to control the resources, they then have greater certainty of future economic benefits. Therefore, they are willing to invest their capital and make efforts to materialize the hope and oppose each action potentially causing coral reef destruction.

b. Environmental awareness

The serious efforts and involvement of TBOs toward protecting coral reef ecosystems can be considered evidence that this group has a relatively high environmental awareness about the ecosystems' sustainability. This can be empirically recognized from statements of the head of Ecotrust and APGA:

"Coral reefs are our life. We make our life from them. We have been able to have a better economic situation, such as that of recent time, because of their existence. We also want our children and grandchildren to get the same benefit from them. Therefore, it is our moral duty to protect them from any kind of destruction" (Hidayat, 2005)

A deep awareness can also be captured from these statements of a cidomo driver:

"Coral reefs? I know them from the tourists who often use my Cidomo. They come here to enjoy the reefs. I can get much money from them. If there is no tourist my income decreases. I want them always to come here to enjoy our reefs so I will protect them for the tourists. I often feel sad when hearing that a fisherman destroys them" (Hidayat, 2005).

c. Organizational experience

Looking at their involvement in local organizations, TBOs may have more organization experience. TBO organizations have existed longer than fisherman associations. Therefore, it is not surprising if individuals whose livelihood is related to tourism services have a strong desire to join relevant organizations. The following statements of another Cidomo driver show this.

"Before taking shelter in this association, we had difficulties talking to each other, to achieve the same perception and to voice our aspirations to the village administration. However, now it is much simpler. When we need to attend a village problem meeting at a village office, before joining in it we have a pre-meeting among ourselves to unify our

perception, what we need and expect. What we agree upon is to be presented in the panel meeting...The head of the cidomo driver association presents our aspirations to the forum. This association is also useful to build the environmental awareness of the cidomo driver community". (Hidayat, 2005).

A similar opinion is also expressed by the representative of a street vendor association.

It is difficult to handle and monitor street vendors. They always move from one place to another to approach the tourists. We initiated the effort to gather them in an association to make it easier to build their environmental awareness.

The greater experience in being involved in organizations has enabled TBOs to have greater organisability. They can organize people who have a similar interest in coral reef ecosystem and develop a collective action program among themselves to meet a collective target, i.e., to conserve coral reef ecosystems in order to generate sustainable benefits. This greater ability to organize themselves is a source of power by which they can affect bargaining outcomes and influence policies of coral reef management at the local level. Their success in driving local governance is grounded, among other things, in this power.

d. Sanction power

In addition to having relatively good organisability and other advantageous characteristics as described above, TBOs that financially support SATGAS have sanction power. That is, a power to impose their alternative path of action on other parties or to make other parties have commitment to their alternative. The source of this power is local institutions (awig-awig) that authorize them to take any necessary actions against coral reef destroyers. Referring to Knight (1992), sanctioning can contribute to the

stability of self-enforcing institutions, potentially reducing the expected benefits of non-compliance and making compliance a more beneficial long-term strategy.

Village Administration

Prior to elaborating the characteristics of village administration, it seems necessary to highlight its position in the Indonesian government hierarchy. Village administration in the Orde Baru (New Order) regime was the lowest level government organ that had a direct command line to the central government (see Figure 1). The old Regional Government Act No. 5/1979 (UUPD 5/1979) clearly defined the village as a certain region occupied by a number of individuals unified as a legal community, acting as the lowest level government organization, and possessing the rights to organize their own domestic issues under the authority of the Republic of Indonesia.

Although, according to the law, village administration has a right to manage its own region, at the same time the law also states that village administration was the lowest level government organization under subdistrict. This means that it constituted a representative of the central government. Consequently, it could only serve as an executor of national programs, without the ability to refuse or propose any different programs. This system had actually eliminated the rights of democratization at the village level, which generally exhibits uniqueness and variety from one village to another. During the period, the government attempted to homogenize the villages and eliminated the variety. The villages had nearly no rights at all to create their own rules, including rules for conducting the management of natural resources (Suhartono et al., 2001

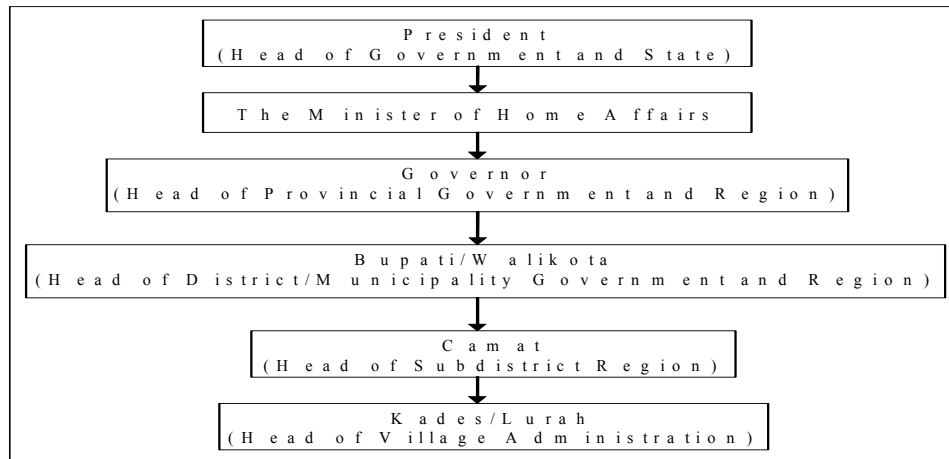


Fig. 1: Hierarchy of Governmental Structure in Indonesia
 Source: Hidayat (2005)

Suhartono et al (2001) proposed that what the New Order regime did was not only to position village administration as the lowest organ of the government hierarchy, but also tried to homogenize them to fit into the same scheme and model (Figure 2). Even though there was a statement that government should retain the heterogeneity of culture existing within the villages, that was only a rhetoric. In the structure there existed two important government elements, that is, the Head of Village Administration and Village Convention Board (LMD). Suhartono et al (2001) criticized the structure as a centralized scheme contending that even

though there is a LMD which should actually be a channel for grass root aspiration, in fact it is infertile. The infertility is caused by the fact that a head and secretary of village administration, according to UUPD 5/1979, at the same time also hold a position as a head and secretary of LMD. In other words, they become a head and secretary of LMD due to their position as a head and secretary of village administration. It can be assumed that this was only an attempt by the central government to easily control local community, by which it could implement the central government's program and interests without any obstacles.

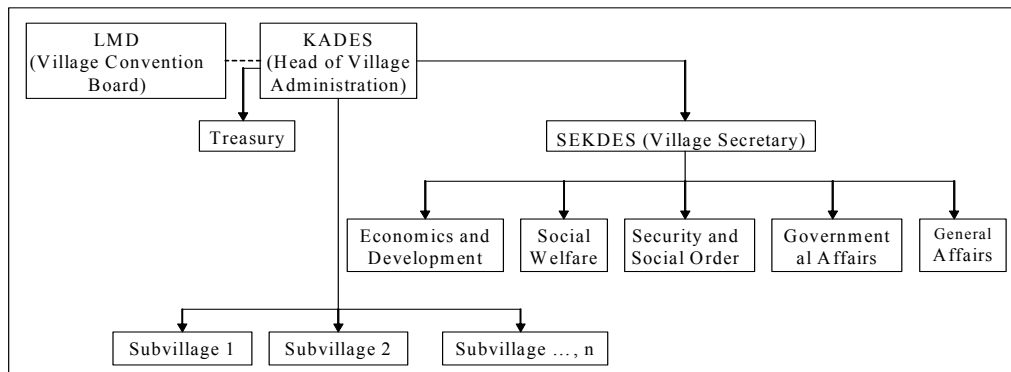


Fig. 2: Former Village Administration Structure
 Source: Hidayat (2005)

Since 1999 Indonesia has a new Regional Government Act (22/1999), which substitutes for the old one. According to this Act, local governments (district and city) are autonomous, with their relationship to the provincial government being not a command relation but rather a coordinative one. The governor has no right to give orders to Bupati or other local government heads. The same status is also held by the village administration. The new Act considers villages to be autonomous administration units at the lowest level. In spite of being structurally directly under the subdistrict level, village administration is not directly controlled by the former, but merely coordinated through it. In other words, the former only coordinates development activities of villages where KADES/Lurah (head of village administration) must not be responsible to Camat (head of subdistrict), but directly to Bupati.

The arrival of autonomous village administration was signaled by the emergence of Village Parliaments (BPD), substituting for the LMD and serving as a legislative body. The head of this body occupies a position of the same high level as the head of village administration (KADES). One important point to notice is

that there is a separation of legislative and executive functions, which during the period of the New Order regime was impossible (Figure 3). In short, following the new Act, village administration consists of a village secretary (SEKDES, or other name according to region) and its staff serving as an executive body and BPD a legislative one.

Suhartono et al (2001) identified five types relationship between the village administration and the BPD: (1) a responsibility relationship which necessitates KADES to give a responsibility report to the BPD when he or she terminates his or her duty; (2) a consultation and cooperation relationship, where in executing governmental duties the KADES must consult and cooperate with the BPD; (3) a working relationship, where both can cooperate in making up working programs and village regulations; (4) a control relationship, where the BPD can control the work performance of the KADES. In addition, the BPD may have a right to channel the grass root aspirations and suggestions to the KADES. Following the new regional government law, since 2000 Gili Indah village has changed its administration structure. Beside the KADES and his staff, this village also has a BPD acting as the KADES' partner in making village policies.

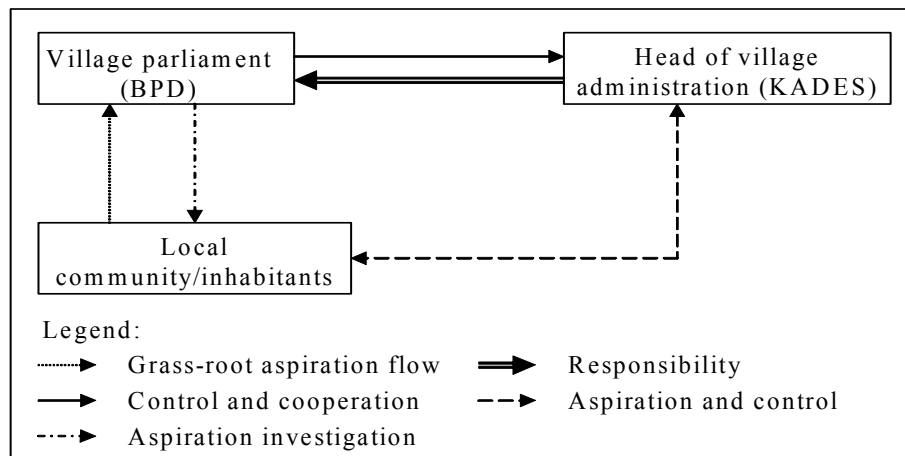


Fig. 3: Scheme of Links between Village Administration and Village Parliament
 Source: Suhartono et al (2001)

As shown in **Table 1** (see page 2), Gili Indah village administration officers have relatively better organization capacity and stronger bargaining power, but also are seen as untrustworthy and have bad reputation. These characteristics affect its role in institutional change and local governance. Good organization skills are indicated by their relatively higher level of education. From the eight staff members, two graduated from lower high school, five completed upper high school, and one holds a bachelor's degree. In addition, they often deal with a variety of activities. This village administration also has a relatively stronger bargaining position compared to other local organizations. This is caused by its position as a formal governmental organization, whose head is elected by residents, acknowledged and established formally by the head of the district government. Due to this position, it also has direct access to the higher (district) level of policy maker⁵.

Nonetheless, Gili Indah village officials have a bad reputation. Most informants consider the village administration staff to be corrupt. This is mainly caused by their unaccountability in

⁵ Although the village administration has direct access to the district government, it is still unable to influence the policies made by the district. This could be mainly caused by an embedded self-conception among village officers that they occupy the lowest level organ of Indonesia government. During the New Order regime, village administrations were positioned as the executors of the policies coming from the higher level government, which they considered to be the boss. They were also indoctrinated with principles such as "the boss never fails; this is the instruction of the boss; the boss knows better," and so on which derive from feudalistic government systems (Suhartono et al., 2001). This mindset has made village officers unconfident when facing with the "bosses" of subdistrict, district, moreover from provincial and national levels. This also applies to Gili Indah village administration officers

managing public funds.⁶ The interviewed villagers considered that the allocations of the budget to be unclear; there is even a strong indication of misuse of the budget that should be used for environmental interests, including coral reef patrol and monitoring. This situation prompted the emergence of APGA and Ecotrust, which have initiated the raising of funds and have conducted self-management. The following statements reveal a attitude of distrust that undermine the reputation of the village administration officers:

"We know exactly that each month the village administration receives money from TBOs. As TBOs, we agree to do it and always meet our obligations. However, how do they allocate the money? We never know, or get reports, how they allocate the money. If they claim that the money is spent to construct public facilities, which public facilities? Nothing new is built in this village. We are quite sure that they misuse it for personal interests".

Yayasan Front Pemuda SATGAS

Yayasan Front Pemuda SATGAS (SATGAS Youth Front Foundation), well-known as SATGAS, has organized the coral reef and marine resource security activities in the area since 2000. The villagers identified as members of this organization generally have a relatively better educational background, organizational skills, sufficient knowledge on the resources in question, and better

⁶ The village administration of Gili Indah has two budget sources: the district government and TBOs. The first is a yearly budget to be used for financing development activities; the second is initially collected from TBOs for funding management of coral reefs, coastal environment and other tourism purposes. second is initially collected from TBOs for funding management of coral reefs, coastal environment and other tourism purposes.

environmental awareness. They have made much contact with environmentally aware international tourists, who usually have great concern for the resources. Prior to involving themselves in the SATGAS, they were also youth organization activists who successfully organized different activities at the village.⁷

The organization holds a strategic role. It gets trust from the community to guard marine resources and is responsible for the monitoring and patrol of the waters around the islands. Since its emergence, it has executed the tasks well. Therefore, it has built a good reputation, sufficient trust and strong bargaining power. Due to the good reputation, it often receives mandates from the local community to handle other social problems, such as cases of looting, fighting, threatening, and other social disorders. Their reputation in dealing with coral reef problems has reached the national level, where SATGAS officers are often asked to present papers concerning their success story.

Strong financial support, good reputation, credibility and trust have made SATGAS very influential on local coral reef management strategy. It plays a main role in local governance structure. Local level policy on coral reef management can hardly be free from its influence. A policy made without its involvement would barely be

implemented. In spite of being powerful at the village level, however, SATGAS is still not powerful enough to influence policies made at the district level. This could be caused by their distant relationship with the district government. They also have no contact with or representatives to it.

Natural Resource Conservation Agency

The Natural Resource Conservation Agency (BKSDA) is the only government agency authorized to manage conservation areas. It is the only property right holder over all conservation areas in Indonesia, and is responsible to carry out management tasks, ranging from planning and implementation to law enforcement and monitoring. Due to the status of its coral reefs as a conservation area, BKSDA also operates in Gili Indah. Our investigation shows that this stakeholder has good organization capacity and strong bargaining power, but lacks trust and has bad reputation (Table 1, page 2).

BKSDA has organized the management of coral reef conservation for many years. The officers working at this agency have been accustomed to organizing different conservation activities and have special training on how to undertake conservation tasks, such as patrolling, monitoring, investigating and so on. Therefore, they have good organizational skills and good knowledge of the resources in question. In addition, as the sole property right holder, the agency holds all rights to control access over the resources. Individuals or companies that want to invest in these resources, so as to benefit economically from them, must get permission from this agency. Due to such privilege, it holds strong bargaining power with both the local community (resource users) and other agencies that have similar interests. It can affect policies concerning the conserved coral reef ecosystems. The local marine and fisheries agency and other agencies in West Lombok admit the authority of BKSDA.

⁷ The head, secretary and staff of SATGAS are commonly upper secondary school graduates. Prior to forming this organization they were involved in *Karang Taruna* (village youth organization). They have better awareness on coral reef ecosystems because of more contact with tourists, other organizations and other sources of information concerning these resources. They become convinced of the need to save coral reefs after they realized that the ecosystems, which can attract tourists, could improve their economic status. Their statements illustrate this attitude: "If there are no coral reefs, there would be no tourism here. We might have been fishermen as others".... (Hidayat, 2005).

As an agency responsible to protect the resources, the officers always think of fishermen as potential violators. They even categorize fishermen as a user group to be monitored or considered as a dangerous threat. They only think about how to conserve and protect the resources, regardless of user groups' dependence on them. As a result, the agency faces a strong resistance from local fishermen and has a bad reputation among them. Fishermen consider the agency to have robbed them of their inherited rights. Consequently, the agency often has trouble implementing policies related to coral reef conservation.

CONCLUSIONS

I have discussed actor characteristics that influence the institutional change in coral reef management. Almost all frameworks for institutional analysis of CPRs—from Oakerson (1992) and Hagedorn et al. (2002) to Dolsak and Ostrom (2003)—said that resource user characteristics are viewed by scholars of institutional economics as important factors of institutional innovation and collective action at every level. Therefore, study of the institutions of CPRs involves the determinants almost throughout.

As described in this paper, self-governance of coral reef management in the study location involves six different actors, five of which are considered as internal actors: fishermen, Ecotrust and APGA (TBO representatives), SATGAS, village administration, and BKSDA. One other, LMNLU, is classified as an external actor, which only plays a role at the collective-choice level.

TBO, SATGAS, BKSDA and the village administration (see Table 1) have similar characteristics: a relatively better organizational experience, higher environmental awareness, long planning horizons and high bargaining power. These characteristics are basic capital, driving them to get involved in institutional change

processes and self-governance. Unfortunately, BKSDA as de jure property right holder, responsible for dealing with daily management activities, has a bad reputation with the fishermen community. Such impression has emerged due to its authority, which has excluded fishermen from benefiting from coral reef ecosystems. Fishermen consider the agency to be a thief of resources they inherited from their ancestors.

Similar to BKSDA, the village administration also has a bad reputation. This is so due to its non-transparency and unaccountability in managing and allocating public funds. As already mentioned, the village administration receives both a subsidy from the district government and monthly contributions from TBOs. The accusation of misusing the budgets addressed to the village administration officials has decreased the community's trust, materialized in the reduction of their spirit or motivation to act collectively as well as in their rejection of any programs that come from the village.

The subsequent actor influential in institutional change and self-governance of coral reef management is fishermen. Fishermen are identified as actors who have lower organizational capacity, higher opportunistic behavior, lack of environmental awareness or have misperceptions about coral reef resources, short planning horizon, low bargaining power, low technological skills, and uncertainty. These characteristics are disadvantageous for building self-governance. Low environmental awareness, misperception about resources, opportunistic behavior, and short planning horizon, for instance, act as a strong disincentive for the actors to invest in coral reef protection. Meanwhile, low organizational capacity and bargaining power could marginalize the actors from an action arena, degrade their roles and decrease the trust of other actors.

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