5. Governance systems of marine protected areas in leastdeveloped countries: analytical framework, characterization and weaknesses

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In order to identify MPA governance issues in LDCs and propose suitable public policy options, a comprehensive examination of governance in each MPA or MPA network is required. A review of the literature has shown the dominance of normative and prescriptive texts advocating good governance and the relative scarcity of thorough scientific analyses, and this to the detriment of thorough analyses (Weigel, 2008). This leads to the conclusion that an analytical framework for MPA governance is lacking and that such a framework should take into account governance specificities in LDCs.

Therefore, an analytical framework has been developed, drawing inspiration from four sources. The first source is the interactive fisheries governance approach, largely developed by the Centre for Maritime Research (Kooiman *et al.*, 2005), which stresses public and private interactions to solve societal problems and create societal opportunities. The second is the risk governance approach developed by TRUSTNET,¹² a European pluralistic think-tank, which identifies two paradigms of risk governance: top-down, and mutual trust. The third source is the socioanthropology of mediations and brokerage, mainly developed by the École des hautes études en sciences sociales (Olivier de Sardan, 1998), which highlights the plurality and the intricacy of socio-economic organizations and institutions, the sociocultural features, and the emergence of new mediators and "development brokers" in LDCs. The fourth is the governance analytical framework, developed at the initiative of the Institut universitaire d'études du développement (Hufty *et al.*, 2007), which suggests a system based on five main components.

The analytical framework adopted, which should provide the basis for a comparative approach applicable to all governance systems, indicates five main components that should be explored to give operational content to the governance concept: (i) define governance problems; (ii) describe the norms with which governance should comply; (iii) classify the governance actors; (iv) identify the nodal points where actors' strategies clash; and (v) reconstruct the process that led to the current governance system.

¹² www.trustnetinaction.com

This analytical framework makes it possible to characterize the different MPA governance systems in LDCs. It has been applied to the two most important West African coastal and marine protected areas: the Banc d'Arguin National Park in Mauritania, and the Bolama Bijagos Archipelago Biosphere Reserve in Guinea-Bissau. Two governance systems have been identified: a hierarchical and instrumentalized¹³ system and a community-based concession system.

The characterization of governance systems highlights their weaknesses, making it possible to suggest how to restructure them and propose new public policy options. The main weaknesses concern: the limits of fisheries management; the absence of financial sustainability; the disproportionate role of international NGOs and institutions; an incomplete decentralization process; and the fragmentation of the State and civil society.

AN ANALYTICAL FRAMEWORK TO CHARACTERIZE GOVERNANCE SYSTEMS

Definition of governance problems

Actors address the problems of governance in different ways according to their place in society, their objectives and the pressures they are under. Therefore, the first stage is to acknowledge the diversity of viewpoints. Hence, in considering what the major issue is in an MPA, ecologists see fish resource overexploitation. Indigenous populations see access to these resources and the control of fishing grounds. State authorities focus on the balance between conservation and economic development and the maintenance of social harmony. In order to be functional, the analytical framework should be able to express the problems identified (e.g. falling fish catches, population densification or non-equitable resource access) in sociopolitical terms. Actors are brought to go beyond what they consider to be a problem and see it, *inter alia*, as a sociological and political issue.

The case of the Banc d'Arguin National Park illustrates the diverse ways in which governance problems are addressed. For scientists, the governance problem is the low capacity of the management institution to persuade a dependent and heterogeneous population – whose tradition does not require, as a main task, the forecasting and planning of natural resource use – to accept the principles of regulation and conservation of a fragile environment. For the administration of the MPA and its partners (NGOs and international donor agencies), the governance problem is that of improving the legal and institutional framework, strengthening the management plan, building mutual trust and understanding, and making participatory mechanisms part of the institutional system. For residents, who may not have a unified vision of the problem posed by governance (given the diversity of interests at stake and the heterogeneity of the actors concerned), the governance problem is defined in terms of opportunity benefits: What is the compensation for loss of income caused by the regulation of fishing and, more generally, of natural

¹³ An "instrumentalized" governance system is a system that those to be governed take opportunity of, and use, to reach objectives of their own, different from (or in addition to) those aimed at by the administration.

resource exploitation? For non-resident users, particularly tourists, the objective of governance is that of biodiversity and landscape conservation (Cheikh, 2009).

Generally, demography stands out among the most important governance problems in LDC MPAs. In the first place, the issue is to curtail population growth, which requires including areas that are often isolated into governmental family-planning programmes. A second problem is to limit the seasonal migration of non-residents and prohibit uncontrolled offshore fishing, which requires the strict and complete application of resource access regulations to all the actors in the value chain (from the fisher to the trader).

Another major problem affecting governance of LDC MPAs is the considerable development of artisanal fisheries in the last 30 years. This has usually meant fishing overcapacity and has led, as in West Africa, to full exploitation and to the overexploitation of certain stocks since the end of the 1990s (Gascuel and Laurans, 2001; CECAF, 2004). The case of West Africa illustrates the considerable increase in artisanal fishing effort and processing within and at the periphery of MPAs at the instigation of development projects funded within the framework of bilateral or multilateral development aid. The solution to this problem requires the integration of MPAs into sectoral policies, for example in fisheries policy, in order to anticipate the problems related to artisanal fisheries development projects at the periphery of MPAs or induced by the mobility of non-residents.

Finally, a governance problem for most LDC MPAs is the significant extraversion of their economies owing to trade deregulation and liberalization. The analysis of the modalities of the deregulation and economic extraversion of these areas showed that overriding market forces operate within them, affecting the residents of protected areas and increasing pressure on natural resources. In order to counteract this negative impact, one option for the public authorities is to mediate and to restore the regulation of flows of goods between protected areas and non-protected zones.

Description of governance norms

Three types of norms can be distinguished, each relating to a different analytical level: (i) meta norms, relating to principles guiding the "social contract" and to broadly shared values that may be of international inspiration (sustainable development, responsible fishing, and participatory management) or of local inspiration (clan, tribe and lineage affiliation); (ii) constitutive norms, which define organizational and institutional mechanisms; and (iii) regulatory norms, which define rules of conduct specifying what is appropriate in terms of behaviour from a social point of view.

Norms can be formulated at different levels and transferred to other levels, for example from the international level to the national or local level. At each level, there is a process of reaction, rejection or acceptance and adaptation. The norms may be formal (recognized by the authorities of the relevant society) or informal (produced by actors' practices). These various norms may overlap, compete or coexist in a given society, and this normative plurality may become a major source of conflict. For example, in the Banc d'Arguin National Park, norms are produced by the park authorities using the meta norms from relevant international NGOs as well as norms from tribal hierarchies. This unicity in norm production is clear even though some competition develops between ministries and state agencies concerning park governance. However, a deeper analysis of norm production reveals that natural-resource access and use regulation is far more administered by the State, via the park authorities, than contracted out with control mechanisms, confirming the fact that regulatory activities are undertaken solely by the authority of the State. The unicity in norm production (an exclusive mandate of the park authorities) is made possible by deliberation mechanisms that are instrumentalized by tribal hierarchies, and which tend to reinforce a potentially deleterious patron–client¹⁴ relation between the park populations and their representatives or delegates.

Tribal hierarchies are placed at the centre of the decision-making mechanisms, but the contemporary context is also characterized by the restructuring of tribal territories, in particular with the creation of new human settlements. Although authority is expressed through a strong state presence and traditional hierarchies throughout the different levels of governance, it also emanates from external partners that, in a context of insufficient state resources, more or less deliberately increase the dependence of the populations on them (Cheikh, 2009).

Classification of the governance actors

In order to analyse the interactions between actors involved in MPA governance, a typology can be made from their classification, according to: their origin (civil society, formal or informal sector, State); the community they belong to (affiliation, membership, administration); their organization (deliberative or not, bureaucratic, market-based); and their social commitment (voluntary or hierarchical).

The typology can be enriched by a supplementary classification. Strategic actors are any individual, organization or group with sufficient power resources to prevent or hinder the application of rules or the decision-making process and the implementation of solutions for collective conflicts. Relevant actors are those involved in the institutional framework and have the resources required for playing a role. Finally, secondary actors are those that lack sufficient power to have an impact on the rules of the game (Prats, 2001).

Based on this typology, some civil-society actors can be identified. Within and around MPAs, the major active actors from civil society are coastal or island communities (mainly fishers, farmers and informal sector workers) organized into village committees, as well as sector-based associations and local and international NGOs. Coastal and island communities can be considered as complex and deeply embedded arrangements of people with kinship, generational, religious, economic and political ties. Residents of an MPA are defined by their unintentional belonging

¹⁴ The term "patron" is used in a negative sense to stress that fact that the assistance, or provision of services or advantages, is given to people in return for their support, creating a dependence between "patrons" and "clients" that may deviate the institutions from serving societal, collective objectives to serving particular interests.

to coastal or island communities, their intentional and voluntary membership in village committees, and their market-related and voluntary membership in producer associations. The local and international NGOs involved (e.g. the World Wide Fund for Nature [WWF] and the IUCN supported by international donors) are very focused on conservation policies and development or cultural heritage policies for local communities. Local NGOs can be likened to mediators or, in some cases, to "development brokers".

In the Arabian-Muslim countries and in the Horn of Africa (e.g. Djibouti, Eritrea, Mauritania, Somalia, the Sudan and, Yemen), in MPAs where human activities are tolerated, the strategic actors are the tribal chiefs, as tribal affiliation plays a decisive founding role in natural-resource-use rights and, more generally, is a key element of governance. Human communities identify themselves with one "tribe" (qabîla) defined as a group, of varying size, of persons whose members are linked by kinship, solidarity or allegiance. The unity of the tribal group is conveyed through a number of common prerogatives, such as the claim to ownership or control of the same territory or the participation of adult males in collective obligations, as well as in the assembly that deliberates on community affairs including those related to access to natural resources.

In a few sub-Saharan African LDCs, in MPAs that are not classified as strict natural reserves, the clans, chiefs and age classes are the strategic governance actors. These traditional hierarchies continue to play an important role in the coastal and marine protected areas of Angola, Benin, the Democratic Republic of the Congo, Equatorial Guinea, Guinea, Guinea-Bissau, Liberia, Madagascar, Mozambique and Sierra Leone. Affiliation to groups such as clans, chiefs and age classes is the basis for natural-resource access and use rights and for MPA governance in general.

The same applies to MPAs in the South Pacific LDCs (Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu). For example, in the Aleipata and Safata MPAs in the Samoan islands, the governance system highlights the role played by the clans (aigai) and the lineage chiefs (matai) who are responsible for the natural resources and represent the clan in the village council (fono). The fono is responsible for community order and the organization and development of the village. The national government adds to this structure by appointing a village mayor (pulenu'u) who presides over the village council. This governance system is strengthened by the 1990 Village Fono Act, which acknowledges the delegation of legal, judicial and executive powers to village councils (Techera, 2006). The village council appoints a coordinating committee to manage the conservation area. Meanwhile, as in other South Pacific island countries, the church is another major governance institution, and pastors or priests have considerable influence over village life. In addition, the Women's Committee and the Untitled Men's (taulelea) Association are also involved.

In other MPAs, traditional hierarchies such as clans, age groups and chiefs have been significantly undermined. This is the case of sub-Saharan LDC MPAs (Comoros, Equatorial Guinea, the Gambia, Senegal, Togo and the United Republic of Tanzania) and of South or Southeast Asian LDC MPAs (Bangladesh, Cambodia and Myanmar).

Identification of nodal points where actors' strategies may clash

Nodal points are spaces, either physical (e.g. a community council or a negotiating table) or virtual (e.g. an Internet conference), where problems converge, actors interact, decisions are made, agreements are concluded and norms are established. The nodal point is an observation space where the actors' distinct visions and interests meet. This notion is close to the notion of "arena" developed by the socioanthropology of mediations and brokerage (Olivier de Sardan, 1998). Governance may involve several nodal points, or a principal nodal point with inter-related secondary ones. For example, during negotiations on the allocation of access rights, each represented group holds internal discussions to determine the group's strategy, during which different actors argue but end up aggregating their demands or positions in preparation for the main negotiation. Identifying and characterizing the different nodal points is part of the analysis of existing governance conditions. The main governance nodal points in West African coastal and marine protected areas are the governing boards and the management committees, the village or community committees, the customary assemblies, the professional associations, and the concertation workshops. It may be noted that, on the whole, the nodal points tend to evolve from the traditional to a more formalized framework.

Among the most identifiable nodal points of the governance of the Banc d'Arguin National Park are the concertation workshops periodically organized by the park management in order to discuss with the representatives of the MPA populations the issues that require their involvement or their consent, e.g. related to regulations or local development initiatives. The concertation workshop is the crossroads where the whole variety of local ideas and interests of resident populations meet and face the resolve of the administration with the view to integrate these ideas and interests into the process of ownership, with the aim of contributing and ensuring the conservation of the natural heritage on which they live and their livelihood depends. The divergent expectations emerging from these workshops are central to the difficulties faced by the governance of the Banc d'Arguin National Park. The workshop is precisely the place where these difficulties are brought out and debated. Connected to this first nodal point, the cooperative is another focal point between divergent interests that acts as the "transmission shaft" between projects and MPA resident populations.

In the Bolama Bijagos Archipelago Biosphere Reserve in Guinea-Bissau, there has not been such a clear formalization of the customary framework. In each village or geopolitical entity, the nodal points remain the council of elders and other traditional assemblies, during which decisions are made. These are accompanied by ritual ceremonies, which play a role in social regulation and in particular in exorcizing conflicts (Henry, 1994). However, these ceremonies also play their part in maintaining the gerontocracy that perpetuates the domination of the elders through the control of resource access and especially of the labour force (Da Silva, 2003). The evolution of nodal points towards a more formalized framework remains localized and depends mainly on the efforts made towards participatory management; as a result, it is more noticeable in the islands of Formosa, Nago and Tchedia, which constitute the Urok Community-based MPA.

Reconstruction of the process that led to the governance system

The process is seen here as a succession of states through which the governance system evolves. One method of analysing the process is to identify the sequences of governance, introducing a temporal dimension.

For example, 1998 was a pivotal year in the case of the Banc d'Arguin National Park. It marked the transition from a barely and only seasonally occupied marine area governed on the basis of a top-down paradigm, to a governance system integrating concertation mechanisms potentially capable of dealing with threats such as: increasingly sedentary (less migratory) populations; greater fishing effort (motorized outside the park and non-motorized inside it) owing to regional and international market pressure; greater access to the park facilitated by the increase in four-wheel drive vehicles and, more recently, the tarring of the road between Nouakchott and Nouadhibou; and the threat of offshore oil and gas drilling. Since 1998, the concertation mechanisms, the objectives of which relate to resource access and sharing new fisheries wealth, have awakened the traditional tribal organization.

Another method to analyse the governance process is to draw the web of interactions between actors. The drawing combines four types of interactions: (i) bargaining transactions, which determine the collective rules related to the transfer of a right (e.g. the access to fish resources); (ii) managing transactions, which organize the production of goods and services (e.g. the exploitation of resources); (iii) rationing transactions, which organize the distribution of the wealth produced based on the principle of allegiance to the authority; and (iv) reciprocity transactions, which strengthen the social fabric and are the foundations of the social capital (Beaurain and Bertrand, 2009).

One example of such transactions are those observed in April 2003 during the installation of a fishing camp in Ancopado in the Orango National Park (Guinea-Bissau) between Diola fishers coming from the northern coast of Guinea-Bissau and the indigenous populations of the village of Eticoga, who claimed territorial control (Da Silva, 2003). The negotiation transaction concerned the composition of the committee bringing together decision-makers from both sides and the modalities of decision-making and transfer of rights. It was decided to establish a committee of five representatives, three from the indigenous village and two from the non-native fishers, and that the transfer of a right of access or exploitation of a resource would occur during ceremonies presided over by the priestess of the village. The managing transaction led to limiting the number of canoes and fishing gear according to the target species, the definition of zones where fishing was prohibited, and to designation of compulsory days of rest in keeping with

Bijogo cosmogony. Rationing transactions dealt with the quantities to be given to the village chief and the council of elders as well as the species and quantities over which the women of the village would have commercial monopoly. An example of reciprocity transaction related to the settlement authorization is given by the rental of canoes at preferential rates – allowing the village women to trade their processed fish on the weekly market of Bubaque, the main town of the Archipelago – and the provision, at the request of the council of elders, of a large canoe from the fishing camp to evacuate the sick and injured to Bubaque.

The case of a hierarchical and instrumentalized governance system: the Banc d'Arguin National Park

The Banc d'Arguin National Park is an example of an MPA where governance is strongly influenced by tribal affiliation. The Imraguens who inhabit the Park were originally a dominated class, once comprising former slaves, tributaries and artisans holding their use and access rights (including maritime rights) from a tribal framework. The tribe continues to determine mentalities, to foster exclusions (in particular matrimonial ones) and to establish powers. The way in which the park's resident households are formed and composed is provided in the general tribal system, which presides over resource access. Within the tribal framework, access regulation is based first and foremost on the assertion of a use right for water points, pastoral itineraries and fishing grounds based on the claim of the past dependence of Imraguens who used to occupy the coast on a seasonal basis to fish for mullet. The strategic actors, who are the chiefs of tribal groups or their representatives, make commitments and decisions in the name of others, taking their authority from within the tribal framework. These are also the actors who draw the most benefit from means and resources provided by external interventions, even though redistribution mechanisms generally temper the predatory behaviour of these "development brokers" (Cheikh, 2003).

However, even though the State, through the park administration, exercises its duty of regulation by delegating some of its functions to traditional hierarchies of the MPA, it has the final say, particularly when tribal conciliation fails. This is especially the case because the State is in charge of the control function, exclusively undertaken by park or state officials, while social organizations have no recognized competence in this domain. It is the park administration and state services that transmit the meta norms advocated by international NGOs. The administration is tempted to operate according to the prevailing top-down paradigm, the only one it really "masters", but it often runs up against the weight of networks of influence and counterbalancing powers of tribal and regional origin from which this administration draws (more or less covertly) some of its legitimacy (Cheikh, 2003; Dahou *et al.*, 2004).

Because of its financial importance, the International Foundation for the Banc d'Arguin (FIBA) can be seen as an informal supervisor of the park administration. The residents of the Banc d'Arguin National Park are tempted to deal directly with the FIBA because of its strong presence on the ground, possibly bypassing the administration. As regards bilateral cooperations, the residents deal practically only with the park central administration but they compete with one another and with the FIBA and this does not always foster coherence among the different projects on the ground. Finally, the "experts", especially those who manage to stay for long periods in Mauritania and are, in principle, serving a rational and ecological vision of local realities, cannot escape from a patronizing reading of the problems.

The arguments of legitimacy or the justifications used by the different actors reveal divergences, convey antagonisms, and mobilize solicitations and odd alliances, which gives the governance system of the Banc d'Arguin National Park its specificity as a hierarchical and instrumentalized governance system. The Imraguen populations work towards strengthening their position of recipients of international aid, stressing sometimes the "compensations" they feel entitled to for the loss of earnings resulting from the statutory constraints enacted by the administration (Cheikh, 2009).

The main governance weakness is the truncated representation of dependent groups that are nonetheless the direct users of the natural resources. This representation tends to marginalize many actors that are neither visible in the tribal organization nor in the representation systems initiated by international NGOs and institutions. Thus, the participatory methods promoted by donor agencies do not always lead to a true associative movement. The poor visibility of resident populations can contribute, ultimately, to increased pressure exerted on the resources by actors located at the park's periphery, in particular artisanal fishers, who claim fishing rights in the park's waters inasmuch as no significant mobilization contrasts their predatory intentions (Cheikh, 2003; Dahou *et al.*, 2004).

The case of a community-based concession system: the Bolama Bijagos Archipelago Biosphere Reserve

The governance system of the Bolama Bijagos Archipelago Biosphere Reserve is based on the devolution of regulatory powers concerning resource access and use to traditional institutions. These institutions refer to the social organization of Bijogo society – every villager belongs to a clan and to one of eight age groups, the last of which provides members of the council of elders. The identification with an insular geopolitical entity relates first of all to the village, which is the property of one of the four matrilineal clans of the archipelago. The "king", assisted by the priestess, heads the hierarchy of the village or group of villages and "possesses", in the religious sense of the term, the collective assets of the village: the land, the beach and the proximate aquatic spaces. He also chairs the council of elders, which brings together the "great men" (the oldest age group) to grant land-use rights or to authorize the settlement of foreign fisher communities (Mendes Fernandes, 1984, 1989; Henry, 1994).

The rights to access and use fishery resources are granted and implemented in various ways. Use rights for fish resources located near the villages are only regulated: (i) when large fish traps are built; (ii) for specific fisheries, in the form of technical restrictions concerning hooks or mesh sizes for mullet nets; and (iii) for certain ceremonies during which the "elders" forbid canoe owners from fishing in the coastal zone surrounding the sacred sites. As regards the use rights of purely maritime fish resources, the customary hierarchies have no recognized role, as the State is supposed to exercise its sovereignty over the maritime space of the exclusive economic zone. The fishing rights in the intertidal zone are set aside for the women of the village and give rise to seasonal collective harvesting led by the "elder women".

This community-based concession system, based on the prevailing mutual trust paradigm characterized by a broad involvement of the stakeholders in the management process, is encouraged by the public authorities insofar as a land law recognizes and endorses all the customary rights. On the other hand, state governance in the reserve is practically absent – deconcentrated administrations seem broadly absent from insular territories and maritime zones. This situation is not specific of the archipelago, as, given the lack of state resources, the administration of citizens remains relatively loose over the whole territory of Guinea-Bissau. Therefore, this is definitely a case of the principle of the devolution of access rights to territories and resources to local populations, with no guarantee, however, from any higher authority, as to their public nature. Incidentally, the process is enhanced by the numerous interventions by national and international NGOs, first by the IUCN and the FIBA, heavily involved in the governance of the reserve and directly financing some of the archipelago communities.

In the case of fishing, this community-based concession system is ambiguous insofar as the traditional institutions are unable to control efficiently the access to and the exploitation of fish resources. Both autochthonous and nonautochthonous fishing coexist in the case of Bijagos. These two types of resource exploitation operate either together or separately depending on the fishing sites. One of the reasons is the absence of the State to enforce the law and guarantee the settlements authorized by law and to call into question illegal ones. As a consequence, some fishing camps develop into proto-urban settlements that threaten the reserve environment. Even when such tensions are moderate, e.g. in particular in the case of offshore fishing from Senegal in MPAs, out of any community control, the State's lack of resources is indirectly responsible for the increase in predatory fishing.

This highlights the main weakness in the governance of this community-based concession system: the lack of resources of traditional institutions to exercise control over the maritime territory, together with the weak linkages between traditional and state powers. To remedy this weakness, norms for resource access and use could be jointly established by the residents and the State. Such cooperation could be supported by international NGOs and institutions that have the resources to generate the necessary mechanisms (Da Silva, 2003; Dahou *et al.*, 2004).

WEAKNESSES OF MPA GOVERNANCE SYSTEMS IN LEAST-DEVELOPED COUNTRIES

The limits of fisheries management

Conventional fishery management generally limits the stakes of governance to a functional mechanism whose objective is to conserve fishery resources (Hatcher and Robinson, 1999). Analyses in terms of fisheries management usually bring only technical or economic solutions to problems involving power struggles between actors that, in that approach, remain neglected. On the contrary, a political economy or political science approach to management would be more willing to address the conflicts between the divergent interests that characterize the governance of MPAs.

Therefore, fisheries managers usually think of the management of an MPA only in terms of appropriate or inappropriate economic incentives or bioecological properties and/or issues and do not pay sufficient attention to the power struggles along the value chain that largely determine the way in which socio-economic issues are appropriated and norms are applied.

The non-recognition of territorial access and use rights¹⁵ of MPA residents by highly mobile migrant fishers is another limit to the fisheries management approach, which only rarely takes into account the overlapping of different fishers' territories or migration paths. For example, the fishing migrations and interactions between MPAs show the difficulty of establishing territorial limits, and yet, the management of these migrations and interactions represents one of the principal challenges for local governance that has to integrate the various scales and manage interactions between the groups operating within and at the periphery of MPAs.

In West Africa, the governance of an MPA is usually only analysed in terms of its fisheries management dimensions. This governance model focuses on understanding the biological, and perhaps the economic or ecosystemic, impact of measures specific to these areas, which reduces the possibility to integrate any elements other than the "catch" and gear dimensions into the analysis. It is difficult for such a narrow approach to integrate the impacts of trade on removals, or in social, economic or political terms (increased inequality, redistribution of value-added, etc.). The conventional "fishery" management model turns out to be too narrowly sectoral to "capture" properly the complex scope of-this type of area.

By modelling essentially the removals taken from ecosystems, the fishery management approach to MPA management promotes only the functions needed to control those removals. By characterizing exploitation systems simplistically, if at all, this approach prevents understanding of the practices of the group of actors and of the degree of equity in these systems. As a result, this approach alone cannot suggest how to achieve environmental, economic and social sustainability objectives.

¹⁵ The term used in French is "déterritorialisation".

The lack of financial sustainability

In LDCs, MPA governance is usually hindered by low, unsustainable and unstable levels of funding. Several funding sources can be distinguished (Reid-Grant and Bhat, 2009). The low level of government subsidies can be explained by the fact that it chooses as a priority to finance the basic needs or to clear its international debt. The unsustainable nature of the funding is the mark of foundation grants given to NGOs working on MPAs for specific projects of fixed duration and that cannot usually be used for daily management activities.

The interannual instability of funding is illustrated by donations, which are an important source of funds for some of the West African coastal and marine protected areas. Other MPA funding sources, such as concessions and biodiversity enterprise, remain marginal in LDCs. Concessions granted to private entrepreneurs provide revenue for the running of MPAs but may open the way to legal appropriations that could then be difficult to reverse. The funds from private firms interested in biodiversity originate generally from pharmaceutical companies searching for chemicals or ready to pay for conservation of their potential sources.

The best guarantors of some longer-term funding are international assistance agencies, debt swaps and trust funds. The Global Environment Facility, for example, is intended for governments and not for NGOs, meaning that funds transit through government bureaucracies. As noted in Senegal, this may lead to lower efficiency. International financial assistance can also take the form of debt swaps,¹⁶ which supposes that the benefiting MPA has the qualified personnel to follow through on the agreement. Finally, the trust funds, which are a relatively long-term source of funding, require that the following conditions be met: the existence of a planning process and a management plan with regular budgeting, annual reporting, business plan, institutional and organizational development plan; and a consolidated and transparent accounting system including externally audited annual accounts. A recent development in LDC MPAs are trust funds. One of the best known in West Africa is that of the Banc d'Arguin, implemented on the initiative of the FIBA and of the Government of Mauritania (FIBA, 2008).

Finally, the introduction of user fees clashes with the low income of fishers and other users who often generate only a low, perhaps even negative, resource rent, explaining why such fees are practically never applied to residents of LDC protected areas. However, several studies have shown that the potential of entrance fees, licences and permits were often underestimated and that they could make a significant contribution to management costs (in particular surveillance costs) provided that the flow of tourists were substantial and the area to protect not too extensive (Depondt and Green, 2006; Thur, 2010).

¹⁶ A debt swap is the conversion of an old debt into a new debt, a new equity, or a series of transactions where debts are exchanged between two entities. Here, the suggestion is that some part of the sovereign debt of an LDC could possibly be swapped for a long-term financing by that State of its management of MPAs.

The disproportionate role of international NGOs and institutions

The analysis of LDC MPA governance systems highlights the disproportionate role of international NGOs and foundations (the IUCN, WWF, FIBA, etc.), and of other international institutions that, through their programme funding, effectively establish themselves as power holders in the environmental field.

The logic behind the development activities of these international NGOs and institutions is to promote deliberative bodies with the view to promote a group of actors. As a result, they do not usually strengthen government-based management of these areas. They try to limit the weight of the top-down governance paradigm by focusing their resources on the organization of local populations. While strengthening community organizations, they do not appear to bother about balancing power relationships within and between communities. This can lead to deficient regulation of conflicts over resource access and use and incoherent management. Thus, these international NGOs and institutions sometimes tend to promote a conservationist approach to the detriment of a wider vision of sustainable development by not providing the necessary resources to mitigate or compensate the restrictions.

Incomplete decentralization and institutional fragmentation

In LDCs, MPA governance is strongly influenced by the general institutional context of decentralization. Initiated by international institutions and relayed by bilateral cooperation agencies, the decentralization policy was implemented in almost all LDCs in the 1990s. However, one can speak of incomplete decentralization insofar as the administration of local communities has not been wholly empowered and decentralization has been limited to certain areas of competence, within the framework of a relationship with the central power based on deconcentration or sometimes even on sheer centralization (Galletti, 2003). Hence, LDC MPA governance stumbles, on the one hand, on absent or incomplete decentralization, as shown by the lack or insufficient fiscal prerogatives of local authorities, and, on the other hand, the insufficient deconcentration processes by a State tending to keep all strategic decisions at this level, helped by its grip over most of the fiscal resources.

In LDCs, MPA governance is also hindered by excessive fragmentation of the State and the civil society. State fragmentation emerges in three ways: (i) in the adoption by state institutions of norms that may be contradictory, e.g. in environmental protection and poverty reduction strategies; (ii) in interministerial competition at the national level, leading to compartmentalized projects; and (iii) in the coordination problems emerging at the local level between deconcentrated administrative services, reducing the development of complementarities. State fragmentation is a serious obstacle to the promotion of a sustainable development, as the different administrations constantly oscillate between conservationist and developmental approaches.

The multiplication of local NGOs and associations illustrates the fragmentation of civil society. Their diverse objectives and difficult coordination seriously

compromise the horizontal governance that should be based on the mutual trust paradigm. In the three areas studied, coordination problems may be identified at the heart of these two power structures (i.e. the State and civil society) that undermine the efficiency of the current concertation mechanisms (Weigel and Dahou, 2007).

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Case studies from West Africa

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