



## Part II. TOWARDS EFFECTIVE PROCESSES



## Chapter 4. A POINT OF DEPARTURE...

### 4.1 What is to be managed? Who is to be involved?

The basic point of departure for co-management (CM) is a situation in which several social actors—bearing different interests, concerns and capacities for the management of a given territory or set of natural resources— not yet found, or possibly not even explored, the possibility of joining their forces and agreeing on a way to do it together. These actors may comprise indigenous and local communities, local authorities, government agencies and representatives at different levels, NGOs, associations, individuals with special interests and private companies and businesses of various kinds. In recent decades, the number of social actors interested in managing natural resources has increased as a result of widespread socio-political change, including governments' decentralisation processes, the privatisation of previously state-controlled initiatives, the emergence of new democratic institutions, and the proliferation of NGOs, associations and business companies. Many such “new actors” perceive environmental or social problems and opportunities and believe that they can adequately respond to those if they are allowed to participate in management decisions and actions.



#### Box 4.1 What type of decentralisation?

(adapted from Ribot, 2002 and Alcorn *et al.*, 2003)

The term “decentralisation” describes an act by which a central government formally cedes power to actors and institutions at lower levels in a political-administrative and territorial hierarchy. If those are local branches of the central state (e.g., prefects, or local administration and technical ministries) the process is referred to as “*administrative decentralisation*” or “*de-concentration*”. If those are private bodies such as individuals, corporations or NGOs, the process is called “*privatisation*” or “*delegation*”. If those are local authorities downwardly accountable to local people, the process is called “*democratic decentralisation*” or “*devolution*”.

The powers that can be transferred are: legislative (elaboration of rules), executive (implementing and enforcing decisions) and judicial. These powers and the financial resources to implement actions are rarely transferred together in integrated packages or ways that create positive synergies, a fact that complicates the process and often creates conflicts.

Extremely rare are the territories or natural resources not under some form of management (*de jure* or *de facto*), even if not outright “visible” or discernible by non-local people. Usually, one or a few social actors have access to the resources and can take management decisions. Others are excluded and may sometimes feel (and be) damaged, deprived of their rights, unjustly treated and unsatisfied. They also may be attempting, overtly or covertly, to gain access to natural resources and their benefits, engendering acute or chronic conflict situations. In other cases, the control over natural resources is shared among some organisations, groups or individuals, but the rules and conditions of this sharing are unclear or have fallen in disrespect. Or the management activities are simply ineffective, and are themselves a cause of ecological and economic damages. In some extreme cases it may even be that control on the part of any one actor is utterly limited and that the resources are in an “open access” state, with no one willing or capable of exercising management authority. In all the cases just mentioned, the need to attempt more effective and collaborative solutions is likely to become, sooner or later, evident.

Yes but... where to begin? In an ideal case, all relevant social actors would together take the initiative to meet, decide what to do and share fairly among themselves the relevant management rights and responsibilities. They would aim at a negotiated agreement and would have all the necessary means and capacities at their disposal, including professional help and time to negotiate. Unfortunately, this ideal case is far from common. A more typical situation sees only one or a few social actors holding most of the authority and the means to set a partnership process in motion. A co-management process is thus strongly dependent on the initiative of the most powerful parties, a good reason to explain why the phenomenon is not yet as widespread as it could be. This notwithstanding, the variety of “prime movers” and practical occasions to initiate a co-management process is impressive. These comprise responses to ecological and socio-economic *crises* (including natural disasters and conflicts over resources, such as legal battles and violent clashes), the emergence of *new legislation* and favourable *socio-political changes* (e.g., attempts to promote more equitable and democratic societies), new *conservation or development initiatives* (especially internationally-assisted projects) and, last but not least, the dedication and commitment of some *exceptional individuals*.

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In India, it was deforestation and the loss of local control over forest resources that prompted villagers to organise sit-ins in the state forestry directors' offices until their grievances were heard and at least some solutions were found.<sup>1</sup> In Argentina, a destructive succession of floods and droughts made everyone aware of the need for co-operation in managing local water resources.<sup>2</sup> In Canada, co-management agreements marked the end of decades of legal conflicts opposing the federal government and the representative of Indigenous Nations. In Ecuador, a major natural disaster ushered a wave of cooperation, solidarity and joint initiatives (see Box 4.2). In many island states, the growth of tourism and its impact on local livelihoods generated social conflicts that eventually provided the impetus for CM processes (see Box 3.9 in Chapter 3).

**Box 4.2    A natural disaster gives birth to solidarity, partnerships and participatory democracy in the Andes**  
(adapted from Rodas, 2002)

In the municipality of Paute (Ecuador), much has changed in less than a decade. It all started after an event that disrupted everyone's life: the "disaster of the Josephina". In the Spring of 1993, a landslide from the hill of Tamuga dammed the rivers Cuenca and Jadan. The natural dam resisted for some time, but eventually broke down and flooded a huge area, including several villages and the town of Paute. The residents of the town—originally not a particularly cooperative population—ended up sharing the same plastic tents and precarious uphill quarters for months. They had to live together, organise themselves for basic necessities, talk and listen to one another. Later, they had to clean up the town from the tons of mud that invaded it and rebuild all that had been destroyed. From this long and humiliating but also empowering experience, a new sense of communality and solidarity was born.

They begun with an organisation called Paute Construye, which started rebuilding the damaged or destroyed homes with a totally new conception of community involvement in all stages— from the definition of who should be helped on the basis of local "scale of need" (defined and established by the people themselves), to the local drawing of construction plans (all houses being different and designed according to the needs of the families to live there), to the cooperation between families and new organisations of local artisans in the construction of the houses themselves. A women's network was created, which is still active ten years later with training, various types of production and credit initiatives. The peasants from the driest rural areas got together and built one of the most ambitious irrigation and water supply efforts in the region. The artisans created new associations and improved their skills, a new cooperative credit scheme was set up (now serving 11 municipalities and having more than 10,000 members) and several community buildings were collectively designed and constructed. Currently, a five year development plan has been developed and approved for the Municipality of Paute. The Plan is simple but extraordinary, as it is centred on common visions of the relevant people about what they want their municipality, and their single parishes, to become. The visions were developed in local community workshops and, from those visions, specific areas of intervention were drawn and for each of those a number of specific projects, many of whom are now in operation.

The process that developed the plan was as important as the product. The participation of all actors, and the local communities in particular, has been its true heart. Support was provided by the Church, a local NGO called CECCA (*Centro de Educaci3n y Capacitaci3n del Campesinado del Azuay*) and the municipal authorities. Innumerable meetings and workshops took place in forty-three villages and urban quarters of the seven parishes in the municipality, as well as many encounters with the main agricultural employers (production of flowers for the foreign markets) and the national, regional and district institutions. Early in 1999, as a consequence of all these meetings but also because of contingent social rebel-

<sup>1</sup> Madhu Sarin, personal communication, 1997.

<sup>2</sup> See the example of Encadenadas Lakes, in Argentina, described in Section 3.2 under "water and watershed management".

lion against corruption, the process gave birth to the Municipal Development Committee, a local parliament with representatives of 27 organisations. The development plan has been the result of the work of this committee, with ideas from workshops at the grassroots being sent to the committee, which commented upon them and sent them back to the grassroots, which commented and sent them back again for final approval, in an iterative process. The committee has also established some local expert commissions to assess specific issues or problems. Once the decisions are taken, an Executive Committee has the responsibility of carrying them out. The Executive Committee is composed of four delegates from the Municipal Development Committee and four representatives of the municipality, headed by the Mayor.

Not everything is well in Paute. Many peasant families still survive on smallholdings in harsh environments, health and social problems are serious, migration from the area is still high, environmental problems with roots in the last fifty years of unplanned “development” are very severe. With respect to other municipalities, however, Paute shows a tremendous difference in terms of local organizing, solidarity, achievements and hope. Surely, this is because of the presence of generous and genial individuals that motivated and supported the participatory process. Most likely, however, this is also because of the shock— and aftershocks— of the disaster of the Josephina.

In Zimbabwe, the CAMPFIRE operation owed its existence to a new piece of legislation assigning wildlife management power to “deserving” districts,<sup>3</sup> and its subsequent success to the economic profitability of the sector and to the fact that many operations were self-directed and motivated.<sup>4</sup> In Madagascar, the GELOSE law, providing for the transfer of management rights and responsibility of common pool natural resources to local communities under specified conditions, ushered a series of impressive social processes and NRM regulations. In the United States, the 1964 Wilderness Act, the 1969 National Environmental Policy Act, the 1972 Endangered Species Act, and the 1976 National Forest Management Act all contained provisions for public input into agency decision-making. And yet, they stressed public participation in an individual and nationalistic sense rather than in a collective or community-based sense and did not generate much dialogue or discussion. The factor that prompted the enormous popularity currently enjoyed by collaborative stewardship of forests— by 1997, 90% of US forests were managed through some co-management structure— was, in fact, the success of a few concrete examples of collaborative regimes.<sup>5</sup>

In Mali, an ILO project prompted the conditions for a new share of benefits and responsibilities between the government and the local villages in forest management.<sup>6</sup> In Cameroon, an initiative for the rehabilitation of the Waza Logone flood plain identified the need for collective management institutions and assisted the local society to express them.<sup>7</sup> In Australia, informal discussions among local farmers are at the roots of the impressive and widespread Landcare co-management programme.<sup>8</sup> And all over Africa co-management agreements have been developed to attempt providing a solution to the many conflicts opposing local communities and authorities in charge of enforcing protected area regulations.<sup>9</sup>

<sup>3</sup> In turn, this was the result of the work of some exceptional individuals (Child, 2003). See also case example 1.3 in Chapter 1 of this volume.

<sup>4</sup> Child, 2003.

<sup>5</sup> Wilson, R.K., 2003.

<sup>6</sup> See Box 3.15 in Chapter 3.

<sup>7</sup> de Noray, 2002.

<sup>8</sup> See a brief description of the Landcare initiatives in Section 3.2 of this volume.

<sup>9</sup> Numerous examples are illustrated in this volume. See, for instance, Boxes 3.6, 3.7, 3.13, 4.3, 5.5, 5.9, 5.12, 5.14, 6.11, 6.17, 7.11, 7.15, 9.5, 9.8, 9.17, 9.22.

The case of Miraflor (Nicaragua) is an uncommon example of the opposite situation. There a cooperative of small-scale farmers successfully struggled to have their land declared under a protected status (protected landscape under IUCN Category V)<sup>10</sup> and co-managed with the environment ministry. This demand for officially-sanctioned constraints was a conscious attempt to make the land less attractive to resourceful landowners who had started buying it up, and to avoid the health and environmental problems the farmers had experienced elsewhere under large scale production approaches.<sup>11</sup> The farmers offered the environment ministry their commitment to a livelihood based on small-scale, organic farming and their support to rehabilitate the local cloud forest patches. In exchange, they obtained legal and management support to remain in control of their land and some financial support from external donors.

**Box 4.3    Balancing the powers in Makuleke land (South Africa):  
a co-management framework solves conflicts over land ownership and use**  
(adapted from Steenkamp, 2002)

In 1969, the Makuleke community of the Limpopo province was forcibly removed from a tract of land in the northeastern-most corner of South Africa. Their land was incorporated into the Kruger National Park (KNP) and the community relocated some 70 km towards the south. Close to thirty years later, ownership of the land was returned to them by way of a co-management agreement with the South African National Parks (SANP). This settlement was negotiated under the auspices of the land reform programme launched by South Africa's first post-apartheid government.

Land ownership gave the Makuleke substantial bargaining might and the settlement fundamentally changed the balance of power between the two parties. The agreement made it possible for the Makuleke to pro-actively pursue their interests in the land relative to those of the SANP and the state. It also created a secure framework for the longer-term conservation of the Makuleke Region's exceptional biodiversity.

A lack of conflict around management issues is often indicative of the prevalence of an oppressive relationship. In this instance, the open conflicts that emerged as part of the redressing of rights after the fall of the apartheid regime were successfully settled as part of the co-management process. The implementation of the agreement did not immediately "solve" the controversies, but all tensions were ultimately dealt with within the framework of the agreement. With the resource base secured, the ultimate success of the "Makuleke model" will depend on the Makuleke leadership's ability to ensure the rational and equitable distribution of the benefits of conservation to all sections of their community.

*Energetic and dedicated individuals are found in nearly all situations where a management partnership successfully developed.*

At the roots of effective co-management are often some visionary and dedicated individuals. Some of them work hard for a long time to prepare the conditions for local NRM agreements. Others suddenly change the scene by introducing new incentives. In the region of Menabé, in Madagascar, Mady Abdoulanzis managed to awaken a relatively sleepy, depressed and dis-organised civil society by calling it to decide what to do with a sizeable sum of money. Mady was a Member of Parliament and in the early 1990s he had been offered, according to a national law, some resources to help in the "economic development" of his constituency. Many other MPs spent those resources enriching their friends and personal supporters. Mady called the social actors in the region ("*les forces vives de la société*") to meet, analyse together the situation and decide how to invest the

<sup>10</sup> IUCN/ WCPA, 1994.

<sup>11</sup> Munk Ravnborg, 2003.

resources for the best environmental and social returns. This led to the significant engagement of many people and, over the years, the *Comité Régional de Développement* (CRD) du Menabé became a model of civic engagement and participatory decision-making for the whole country and the true “development and regulations engine” in the region. As Mady used to say, the strength of the CRD was that, despite no legal mandate, it had all the legitimacy one could desire!

Energetic and enthusiastic individuals are invariably found in nearly all situations where a management partnership successfully developed. These people may be local residents, project staff and consultants, or government and NGO personnel. Community leaders may take the initiative to meet with governments to claim specific rights and solve specific conflicts and problems. NGOs and research professionals may seek alliances to promote the conservation of a territory in management limbo or of a species in jeopardy. The staff in charge of a protected area may call for local actors to discuss common issues and concerns and reach some agreements for the benefits of both the territory and the surrounding communities.<sup>12</sup> Such dedicated individuals usually prompt the creation of a local team to find the needed resources and to set the co-management process in motion (more on this later).

Some distinctions should be made among the impressive variety of “potential beginnings” for a management partnership. Co-management is, overall, a political process. The aim of many of its promoters is a more equitable management of natural resources. But the aim may also be the co-option of others, and the gaining of unfair advantages over established entitlements. As briefly discussed in Chapter 1 of this book, colonialism and the emergence of nation states and private property have progressively weakened and disempowered the traditional, community-based institutions in charge of common property resources in many countries. From such a starting point, a co-management regime may offer new chances to local institutions—e.g., village committees and community user groups—to regain lost influence and positively affect the environment and society. Some indigenous peoples are also using co-management agreements as a way of securing their entitlements over their ancestral lands (this has been the case for some time in Canada, Australia and now in various countries in South America, see Box 4.4). From different starting points, however—for instance where traditional structures are still effectively in charge of indigenous domains—a move towards shared management responsibility with the government and other actors should be carefully evaluated (see Section 4.4 in this Chapter).



*Some indigenous peoples are using co-management agreements as a way of securing their entitlements over their ancestral lands.*

<sup>12</sup> It may seem paradoxical that government staff initiates a process to relinquish some of their powers. Indeed, this is still the exception rather than the rule, but conservation professionals are increasingly aware of the benefits to be expected from co-management agreements. Many are willing to go well beyond the call of duty to improve the long-term chances of the protected areas they are entrusted with.



Box 4.4    **Securing land tenure and rights through a co-management agreement: the Alto Fragua–Indiwasi National Park (Colombia)**  
(adapted from Oviedo, 2003 and Zuluaga *et al.*, 2003)

The Alto Fragua-Indiwasi National Park was created in February 2002, after negotiations involving the Colombian government, the Association of Indigenous Ingano Councils and the Amazon Conservation Team, an environmental NGO focusing on projects to assist the Ingano and other indigenous peoples in the Amazon basin. The Park is located on the piedmont of the Colombian Amazon on the headwaters of the Fragua River. Inventories conducted by Colombia's von Humboldt Institute determined that the site is part of a region harbouring the highest biodiversity in the country and is also one of the top hotspots of the world. The protection of the site will assure the conservation of various tropical Andean ecosystems, including the highly endangered humid sub-Andean forests, some endemic species such as the spectacled bear (*Tremarctos ornatus*) and sacred sites of unique cultural value.

Under the terms of the decree that created the Park, the Ingano peoples are the key actors in charge of its design and management. The area— whose name means House of the Sun in the Ingano language—is a sacred place for the indigenous communities. This is one of the reasons why traditional authorities have insisted that the area's management should be entrusted to them. Although several protected areas of Colombia share management responsibilities with indigenous and local communities, this is the first one where the indigenous people is fully in charge. This has been possible thanks to Colombia's legislation that recognises traditional authorities (*Asociaciones de cabildos*) as legal subjects with faculty to develop their own development plans, including environmental management provisions.

The creation of the Park has been a long dream of the Ingano communities of the Amazon Piedmont, for whom it naturally fits their Plan of Life (*Plan de Vida*), *i.e.*, a broad, long-term vision for the entirety of their territory and the region. The creation of Alto Fragua-Indiwasi National Park, with the Ingano as principal actors in the design and management of the site, represents an important historic precedent for all the indigenous peoples of Colombia and elsewhere, and an example to follow.

There is no simple way of distinguishing between a co-management process that leads to increased social justice and more sustainable use of natural resources, and one that may “sell-out” existing entitlements or resources. The unique set of entitlements recognised at a given time over a body of natural resources is a socio-cultural construct, a product of a negotiation in a given historical and socio-political context, which can only be appreciated in its light. It is clear, however, that important power differentials among the relevant social actors do *not* create a positive and constructive climate. And it is clear that some basic political and social conditions (*e.g.*, freedom to express needs and concerns, freedom to organise, confidence in the respect of laws and agreements, some democratic experimentation allowed in society) need to be present for the process to develop. When these conditions are unclear, a co-management process can be complex, long, arduous and even distressing and confused. Rather than a smooth operation, one should expect surprises, conflicts, the emergence of contradictory information and the need to retrace one's own steps.<sup>13</sup> And yet, with good will and political support, a co-management process can also be smooth and rewarding...

Given the need to cope with social complexity and the dependence on political feasibility, we would venture to state that effective co-management regimes are the expression of “mature societies”. Mature societies can be defined as societies whose institutions enjoy a widespread sense of legitimacy, whose collective rules are generally respected and whose internal socio-political structuring is vibrant

<sup>13</sup> For a case of co-management derailed in mid-course in the Republic of Congo, see Box 9.25.



and complex. Many examples are found among traditional societies, and some also among modern societies. The opposite are societies that combine utmost centralisation of decisions, feeble respect of rules and the repression of free social structuring.<sup>14</sup> Indeed, mature societies tend to reject the myth of unique and objective solutions to manage natural resources. They instead realise that there exists a multiplicity of suitable options compatible with both traditional and scientific knowledge systems and capable of meeting the needs of conservation and development... as well as a multitude of negative or disastrous options. The relevant parties in the co-management process analyse and choose among such options in the light of their multiple interests, concerns, capacities and entitlements. They generally seek to define and foster both effectiveness and equity in the management of natural resources but, in so doing, they also bear upon some of the most important aspects of social life— such as human and economic development, citizen participation and culture.

*Effective co-management regimes are the expression of “mature societies”... [which] renounce the myth of unique and objective solutions to manage natural resources [and] realise that there exists a multiplicity of suitable options....*

In a generic situation in which one or more social actors are concerned enough to be willing to work towards a management partnership, they usually begin by the following steps:

- identify the management unit and main social actors with interests, concerns and capacities to manage it (at times referred to as “relevant social actors”)
- re-assess together the need and feasibility of co-management in the specific context and for the specific unit;
- if co-management is found to be needed and feasible, identify the human and financial resources available to support the process;
- establish a “Start-up Team” to promote and facilitate the process up to the setting up of the multi-party negotiating forum.

The above are not always undertaken in a conscious fashion or in the order mentioned. Sooner or later, however, an analysis of the relevant management unit and actors and of the needs, feasibility and resources available is done for all CM processes. These steps will now be explored in more detail.

### The natural resource management unit

At the very beginning of the CM process, the territory or resources to be managed should be identified, at least in a preliminary way. This is very important and less straightforward than it may appear. A natural resource management (NRM) unit needs to make ecological sense, *i.e.*, it should comprise the essential elements of an ecosystem, allowing the coherent planning and implementation of needed initiatives (sustainable use, protection, restoration, etc.). The natural limits of an ecosystem, however, are often hard to define, and even more so when we try to comprise into a “unit” all the key factors impinging upon the ecosystem. For instance, a coral reef can be affected by the detritus and pollution brought to the sea by a river. Should the relevant NRM unit comprise only the reef or also the river basins opening into it? If we wish to conserve the reef, it is apparent that we need to act at the level of the river basins— a fact that significantly enlarges the scope of management.

*The definition of NRM unit brings us to face the complexity of socio-ecological systems.*

In addition, a management unit needs also to make economic sense, which can

<sup>14</sup> Examples are the so-called “weak states” or societies dominated by a few private interest groups. See <http://www.yale.edu/leitner/pdf/PEW-Way.pdf>

*... in traditional societies there is generally a remarkable coincidence between a distinct body of natural resources and the social unit ("local community") managing them... the territories, areas and natural resources under the care of a local community identify a management unit.*

best be illustrated by another example. Let us say that most of the benefits of protecting a given watershed are enjoyed by the inhabitants of a plain, while the costs are felt by the inhabitants of the upper watershed alone. For the sake of management effectiveness, but also of equity and sustainability, the inhabitants of the plain should be involved in bearing some of the management costs and the inhabitants of the upper watershed should be receiving some of the relevant benefits. In this sense the whole river basin would be a more appropriate management unit than the upper watershed or the plain alone. Thus, if we wish to make sure that a NRM unit is ecologically and economic coherent, we often see it grow in size. This is not necessarily a problem, but the larger the size the more numerous the social actors that will ask/ need to be involved. In the example of the reef, we may see the relevant communities multiply, as well as the affected municipalities, some of which may be centrally interested in the reef management and others very limitedly so. In addition, besides fishing and tourism operators, we will see the agricultural and industry sectors becoming hotly involved. In other words, the definition of NRM unit brings us to face the complexity of socio-ecological systems while the "solution of the problem" necessarily involves a compromise among competing requirements.

In traditional societies there is generally a remarkable coincidence between a distinct body of natural resources and a social unit ("local community") closely related to those resources. Many villages have been created to take advantage of the water and forest products related to a patch of forest or a mountain system, or to the fishery resources of a coral reef. Many nomadic tribes coincide with the management of specific wintering and summering (or wet season and dry season) pasture grounds and the migration routes in between. Specific social groups or tribes have been, through generations, the caretakers and users of a given spring, animal species or portion of a river. In fact, in traditional societies natural resource management and social organisation are closely intertwined (see Box 4.5). As communities manage and conserve natural resources they ensure other needs, such as food production, dwelling, income and security, and they exercise and continuously re-build their identity and culture— all of which instil and strengthen their

social interdependence. In more than one way, thus, the territories, areas and natural resources under the care of a traditional community *identify* a management unit in a rather straightforward and natural way.

This does not mean that at community level all is simple. Overlaps between the territories under the care of different communities, in particular nomadic and sedentary communities, do exist. They present particular challenges today, in the context of diminishing resources for livelihoods and larger



numbers of people. Boundary issues between sedentary communities may also be thorny, as it may be the management of water and wildlife, not usually confined to the territory of any one community. Ideally, issues related to broader problems and opportunities would *define* a higher management level where the representatives of the communities and other relevant actors can meet and agree on common decisions. In this sense, an effective management structure would comprise a series of nested NR management units (for instance several micro-catchment units managed by different communities, nested within a river basin watershed, itself part of a larger island ecosystem).

Besides linkages among management levels, the key challenge in nested systems is about the effective interaction between traditional and “modern” authorities. Most governments are organised in a compartmentalised manner, with separate line agencies handling different issues and objectives at different levels, and administrative responsibilities that do not reflect ecological or socio-cultural boundaries. Because of this, communication and collaboration between communities and governmental agencies at one or more of the nested levels may not be easy. The fact remains, however, that territories and resources traditionally managed by different communities offer a natural way to subdivide an environment into viable management units, and that nested management bodies offer to national governments ingenious ways to benefit from existing capacities and resources.

**Box 4.5 “Natural” geographic units in aboriginal management systems**  
(adapted from Weinstein, 1998)

The aboriginal fisheries of coastal British Columbia (BC, Canada) were differently organised than the contemporary fisheries that derive from European fishing traditions. The geographic scale was very different, as were the rules for who had access. The details of the organisation varied among different cultural groups. Some groups used formal, quasi-legal arrangements to limit and transfer rights of access to resources. Other groups controlled access more informally by limiting the distribution of critical knowledge about the territory and its resources.

For the Nisga’a and the Gitksan, the lands and adjacent coastal and riparian areas were divided into territories. These territories belonged to house groups, or *wilp*, whose membership was defined by matrilineal descent rules. Typically, the boundaries of a territory radiated from a reach of the coast or river shore up mountain slopes, framing a salmon stream in between. Each house had exclusive ownership rights to their territory and its resources. The separation of land into controlled territories was the basis for the traditional management system for fisheries and for other natural resources.

In general, contiguous territories, consisting of a drainage area or a coastal inlet and its tributary drainages, were recognised as belonging to specific tribal groups. These territories might be considered the geographic units for the aboriginal management systems. The tribal groupings were made up of kinship units, which often resided in one large dwelling, housing about 50 people. These house groups were the coastal societies’ economic unit. The house groups held recognised tenure to designated areas and resources within the tribal territories. A group’s economy was based on the resources within the area to which they held rights. The specifics of management varied among the different cultural groups, but all coastal BC groups appear to have had two institutions in common: 1) territorial resource harvesting rights held by residential corporate kinship groups, and 2) an obligation for the leaders of these groups to publicly demonstrate adequate resource husbanding through the ceremonial re-distribution of harvested products.



A rather safe option for identifying a NRM unit may be to start from a relatively small and clearly delimited geographical territory or set of resources, selected as preliminary. Alternatively, one can start from a recognised social unit and its management territory. When such a unit is fairly small, the actors who negotiate the co-management agreements are likely to be the same ones later called to implement the related activities, a characteristic often conducive to good management. In addition, smaller units are easier to manage than larger ones. In fact, many professionals would maintain that the best management level is the lowest possible one with the sufficient capacity to take decisions and authority to implement them. This criterion, which goes under the name of “subsidiarity”, derives from various religious and cultural traditions, including Catholic social teachings, and is now included in European Community Law.<sup>15</sup> The subsidiarity principle is also commonly applied in traditional resource management systems. One example is nomadic pastoral societies, where the management of rangelands, their rehabilitation and the resolution of disputes and conflicts are handled at the level of the camp, clan, subtribe and tribe, as appropriate, in that order. Another example is the traditional management of water in a *karez* system, where the neighbourhood, the *boneh* and the village are responsible for the hourly and daily management of the distribution, once the allocation of shares and turns has been made at the level of the whole water source. As a matter of fact, subsidiarity often prompts the recognition of the existence and capacities of local communities as environmental managers.

#### Box 4.6 Conservation of the Asiatic Cheetah in Iran— defining the management “ring”

Once widespread in South, Central and West Asia, the Asiatic Cheetah became a highly endangered species in the second half of the twentieth century, confined only to the peri-desert regions of Iran. A joint project of the Global Environment Facility, the United Nations Development Programme (UNDP) and the Department of the Environment in Iran sought to respond by following a co-management strategy for its conservation. The basic analysis of the social situation was carried out in 2003 by IUCN’s Commission on Environmental, Economic and Social Policy (CEESP), backed by the Iranian Centre for Sustainable Development (CENESTA). The survey found that the same rangeland areas where the prey species of the Asiatic Cheetah (including gazelles, mountain sheep and ibex) normally live are shared by both nomadic pastoral communities, such as the Sangsari Tribe and local villages and other communities of sheep and camel pastoralists, and that the local communities were just as upset as anyone about the disappearing wildlife. In a workshop gathering all the contacted local community groups, they saw themselves as the stewards of their natural heritage, and identified the causes and consequences of the wildlife loss. They pointed at the widespread ownership of heavy firearms and at urban hunters, who at times come accompanied by cold storage trucks, ready to kill large numbers of wildlife indiscriminately and make commercial use of it.

Initially the Department of the Environment in Iran was considering a protection programme based on five specific protected areas. These had been established over the past three decades and were supposed to serve as relatively “secure” areas for cheetah. In reality neither cheetah nor local communities pay much attention to the boundaries of these areas. Cheetah, in particular, is a highly mobile species, often going up tens and even hundreds of kilometres in search of prey and mate.

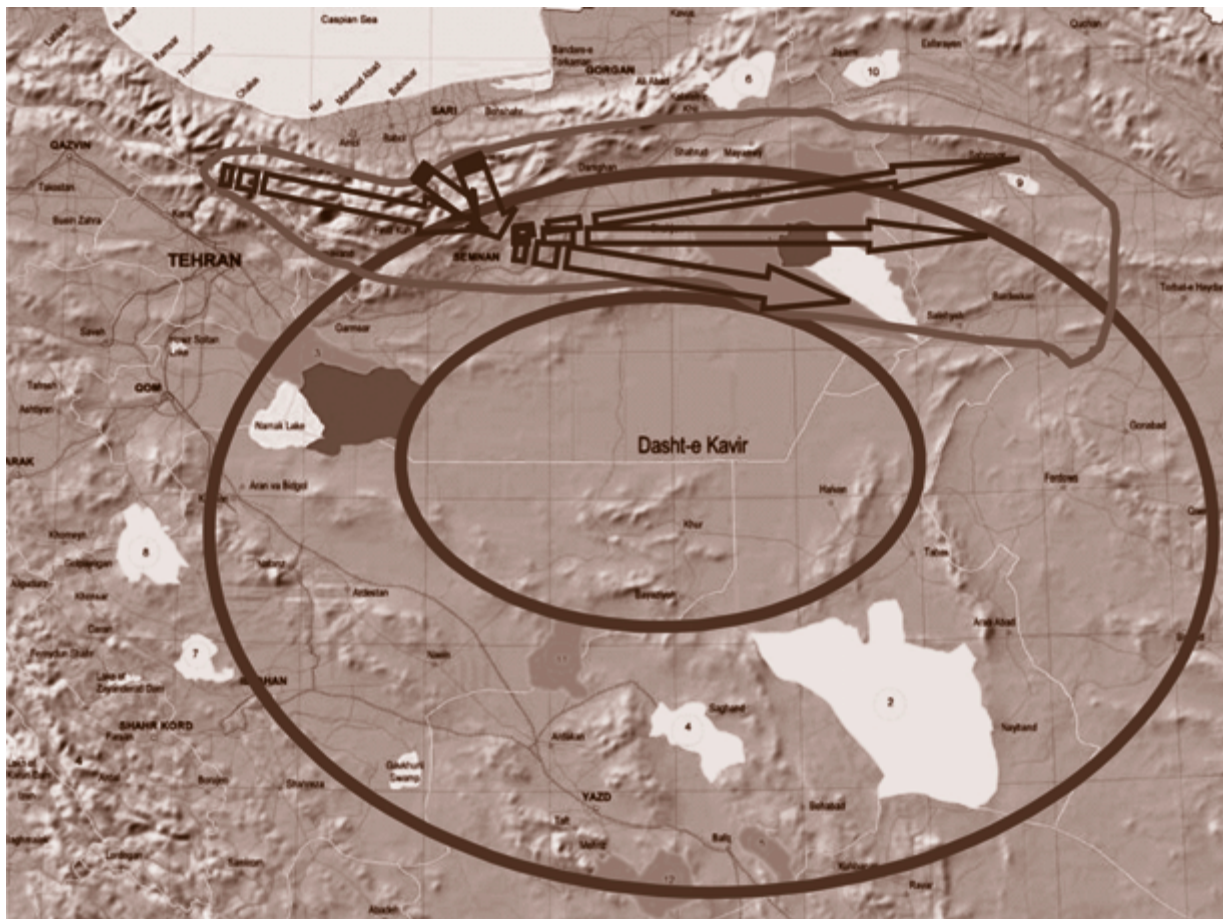
A co-management Start Up Team (see Section 4.3 in this Chapter) was set up consisting mostly of staff

<sup>15</sup> Treaty on European Union (Maastricht Treaty).

from CENESTA with experience in co-management and linkages with the relevant communities. The Team also included a professional from the Government's Organisation for Nomadic Peoples Affairs. The Start-up Team proceeded to identify the stakeholder groups, in particular the local communities with a role and interest in the issue. They were all contacted and asked to contribute to the analysis. It was this enlarged Set-up Team that, after long discussions, realised that the NRM unit for the Cheetah and its associated prey and habitat was a "ring" around the central desert in Iran, some 1500 kilometres across.

The "ring" covers the territory of eight official protected areas and the interstitial spaces among them, thus including the land and resources utilised by the nomadic and sedentary herders and their traditional institutions of management. The best way to assure the protection of the wildlife throughout the "ring" is through encouraging local communities to create and manage "Community Conserved Areas" (CCAs). These could be set up by alliances among these communities and formally backed up by the government. In this scheme, all CCAs and all official protected areas would constitute management "sub-units" of the same overall habitat of the Cheetah."

Figure 4.1 **A ring around the Central Desert as a possible "management unit" for the Asiatic Cheetah in Iran**— a schematic diagram including the official protected areas (numbered areas) and the migration routes of the Sangsari nomadic pastoral tribe (large arrows).



In the USA, the Center for Watershed Protection<sup>16</sup> carried out a study among watershed practitioners from a wide cross-section of disciplines (planners, municipal officials, consultants, scientists, and others) and found that most plans failed to adequately protect their watersheds. A chief reason was that they were drawn up on too large a scale— 50 square miles or more. Too many sub-watersheds and their individual problems had to be consolidated, and the focus of the plans became blurred. As the number of relevant social actors proliferated, responsibility for implementing the plans became diffused. In short, the planning process appeared too large and complicated, with a typical municipality or county in charge of 10 to 50 sub-watersheds. Based on such analysis of first-generation watershed plans, the Center proposed a dozen elements that every plan should incorporate. Chief among them, the plan was to be developed around the sub-watershed unit— defined as having a drainage area between 2 to 15 square miles. Due to their size, many such sub-watersheds were entirely contained within a single political jurisdiction, which helped to establish a clear regulatory authority. Sub-watershed mapping, monitoring, and other study tasks could be completed relatively quickly (6 to 12 months) and the entire management plan could be completed within a year. A division into management sub-units can also be prompted by the existence of different ecological requirements. The area of Mount Cameroon National Park, for example, has been sub-divided into different units for the purpose of rationally managing different species (e.g., *Prunus africanus*) and sub-ecosystems.<sup>17</sup>

**Box 4.7 By splitting the area into five, problems in one corner of the bay will not hamper progress elsewhere...**

**The experience of Limingalahti Bay (Finland)**

(adapted from: Kovanen, 1997)

Around the Gulf of Bothnia, one of the continent's youngest landscapes is still emerging from the waters. The vast 116 km Liminganlahti bay, one of Finland's finest wetlands, is undergoing a process called isostatic uplift wherein its post-glacial bedrock is rising to its original level. Almost one third of the bay is less than 1 metre deep, with the coastline moving forward at 18 metres a year or 1.5 Km per century. The exceptional natural wealth of Liminganlahti bay is reflected in the presence of a particularly rich and diverse wildlife, including 250 bird species and flora that include 20 species endemic to the Baltic. Centuries of traditional human activity have maintained the shore meadows, vital for many birds and rare plants, as open grasslands. This went against their natural tendency, which was to succeed into forests. Four townships and several settlements ring the bay with privately owned farmland. Under ancient law and custom, the newly risen lands are collectively owned by the landowners bordering them.

A recent increase in waterfowl hunting, fishing and tourism has required an integrated approach to the different land uses as well as an extensive consultation process to reconcile site conservation needs with the socio-economic needs of the local community and interest groups. The Liminganlahti LIFE project, approved in 1995, is run by a partnership among the Finnish Environment Ministry's regional office, the five municipalities which govern Liminganlahti and its island of Hailuoto, two NGOs (WWF and Birdlife), two scientific institutes, several local schools and the regional council for the district concerned. Such a large cross section of local society in the project steering committee allows for it to air and solve many of the conflicts. But further, the project has embraced a bottom up approach and divided the bay, its shores and its islands into five sub-regions. Each sub-region has established a working

<sup>16</sup> EPA, 1997.

<sup>17</sup> Mambo Okenye, personal communication, 1999. See also box 7 in Borrini-Feyerabend *et al.*, 2000.



group, with an 18-month mandate to allow for meetings to bring together the relevant authorities, conservationists, landowners, hunters, farmers, fisher folk, etc. Using the knowledge already acquired on the ecology of the area, each working group is given the task to draft a plan for its sustainable use, *i.e.*, to find a consensus on practical ways to combine nature conservation with the livelihoods and pastimes of the local population. By splitting the area into five, it was considered that problems in one corner of the bay should not hamper progress elsewhere! In this sense, the management “units” have been designed with effectiveness and efficiency of work in mind.

The sub-regional plans are expected to be later merged into a general plan, including some strict nature reserves within it. The general plan will represent the nearest thing to the consensus of *all* citizens and interest groups affected, and will be integrated into the official land use plans of the local municipalities. The initial sub-regional meetings have been lively, with attendance often higher than expected. People with very different backgrounds and agendas, many of them not used to formal meetings or policy debate, voiced their wishes and concerns. The very fact that all interest groups are being heard by the authorities (the hunters, in particular, claim they were previously ignored) is seen as a sign of positive change.

In general, the management unit should be large enough to accommodate an ecosystem or habitat, and small enough to accommodate a social unit in charge. A coherent socio-ecological topography is fundamental for management sustainability and the identification of the “units” and “sub-units” to be managed is a crucial decision, which bears upon all the subsequent co-management steps. As eloquently expressed by Murphree (1977b):

*“The institutional requirements of a local natural resource management regime include social cohesion, locally sanctioned authority and co-operation and compliance reliant primarily on peer pressure. This implies a tightly knit interactive social unit spatially located to permit this. However, while social topography suggests “small-scale” regimes, ecological considerations tend to mandate “large-scale” regimes. This may arise from ecosystem considerations or when key resources are widely dispersed or mobile, as in the case of elephant and buffalo. Economic considerations may also dictate “large-scale” regimes where market factors require that several ownership units manage and tender their resources collectively. There is no inherent reason why social and ecological topographies cannot be harmonised, although this requires context-specific institutional engineering through negotiation. Often this will involve nested systems of collective enterprise between proprietary units. Built upward in this fashion such larger ecosystem units of management have a built-in incentive to spread, even beyond national borders. Dissonance arises when larger ecosystem regimes are imposed rather than endogenous. Such impositions in the form of ecologically-determined project domains often force together social units which have not negotiated between each other. Worse still, they could cut through existing social units. In so doing they would concentrate on ecological sustainability at the cost of ignoring the institutional sustainability on which it depends.”*

***A coherent socio-ecological topography is fundamental for management sustainability. The identification of the “units” and “sub-units” to be managed is a crucial decision, which bears upon all the subsequent co-management steps.***



## The relevant social actors

Once a tentative management unit is identified, a second step in the co-management process is to compile a preliminary list of the agencies, organisations, groups and individuals possessing interests and concerns relative to it. These are usually referred to as “relevant social actors” or “stakeholders” (see Chapter 2). At this stage, the purpose is not to conduct a detailed analysis of these actors (see Chapter 5), but simply to identify them. Checklists 4.1 and 4.2 offer a number of questions that may assist in the task.

### Checklist 4.1 A snapshot of the interests and concerns at stake

- **Affected groups.** Are there communities, groups or individuals actually or potentially affected by the management decisions? Who lives and works in or around the territory at stake? Are there historic occupants (e.g., indigenous communities or regular transients and nomadic user groups) and other traditional resource users with customary rights of ownership or usufruct? Are there recent migrants? Non resident users of resources? Absentee landlords? Major secondary users of local resources (e.g., buyers of products, tourists)? Are the territories or resources currently being accessed and used? By whom specifically? Are people of different gender, age, class or economic power differently affected and concerned? Are there businesses and industries potentially impinged upon by the NRM decisions? How many employees (national and international) live in the area because of such projects? Are these people active in natural resource management?
- **Concerned groups.** Are there communities, groups or individuals with specific *concerns* about management decisions? Are there government agencies with a specific mandate to manage all or part of the relevant resources? Is anyone officially responsible for them? Which government sectors and ministry departments share some such responsibility? Are there local associations or NGOs dealing with natural resources? Are there research, development or conservation projects in the area? Are there local authorities or local and national politicians with a specific stake in territory or resources? Are there national and/ or international bodies involved because of specific laws or treaties?
- **Dependent groups.** Are there communities, groups or individuals *dependent* on the resources at stake? Is their dependency a matter of livelihood or economic advantage? Are these resources replaceable by others, possibly in less ecologically valuable or fragile areas?
- **Groups with claims.** Are there communities, groups or individuals upholding *claims*, including customary rights and legal jurisdiction over the territory, area or resources at stake? Are there communities with ancestral and/ or other types of acquired rights? Are indigenous peoples involved? Are tribal minorities involved? Are various government sectors and ministry departments involved? Are there national and/ or international bodies involved because of specific laws or treaties? In general, who are the social actors with recognised entitlements and the ones with unrecognised claims on the territory or resources at stake?
- **Impacting groups.** Are there communities, groups or individuals whose activities *impact* on the territory and its resources? In addition to those of local users, are there activities that take place outside the territory and that impact on its resources and their sustainability?
- **Special circumstances.** Are there seasonal/ geographical variations in resource use patterns and interests of the users? Are resource uses geographically and seasonally stable (e.g., are there seasonal migration patterns)? Are there major events or trends currently affecting local communities and other social actors (e.g., development initiatives, land reforms, migration, important phenomena of population mobility or natural growth or decline)?

Table 2.1 in Chapter 2 provides a list of 18 different relevant social actors identified for Rajaji National Park, in Northern India, only on the basis of their own stated interests and concerns. From that example one can easily appreciate the variety of intertwining issues at play for a given territory. It is true that the stakeholders identified for Rajaji could be further subsumed under broader categories, such as the following four: residents of local communities, government agencies with official mandates (including park authorities), NGOs and research/ training institutions. Yet, it would soon be apparent that conflicts of interest and concerns are as common *within* such categories as they are *among* them.

An important area in which the initial promoters of a co-management process may play a role is the identification and recognition of those social actors who not only have interests and concerns at stake, but also capacities and comparative advantages to offer for resource management. Some of them may be individuals or local groups already involved in managing natural resources, such as a user group in charge of a community forest patch, a fisherfolks association that established rules for a given fishing area, a committee in charge of a water source or a council of elders protecting a sacred grove. The following checklist offers some examples of questions to identify social actors with capacities to offer for the management of natural resources. Obviously, social actors with specific interests and concerns and social actors with specific capacities and comparative advantages often overlap.

#### Checklist 4.2 A snapshot of the capacities and comparative advantages at stake

- **Managers and users.** Who is currently *managing the territory* or resources? With what results? Who used to manage those in the past? With what results? Who has *access* to the land, area or resources at stake? Who is *using* the natural resources at present— whether permanently, seasonally, occasionally or temporarily? In what ways? Has this changed over time?
- **Holders of knowledge and skills.** Who are the people or groups most *knowledgeable* about, and capable of dealing with the territory or natural resources? Are there examples of valuable “local knowledge and skills” for the management at stake?
- **Neighbours.** Are there communities or individuals *living in close proximity* with the resources and thus able to monitor and survey them with relative ease and comparative advantage?
- **Traditional authorities.** Who are the main *traditional authorities* in the area at stake? Are there *respected institutions*, to which people recur in a variety of needs and circumstances? Are there agencies and organisations capable of offering human resources, technical capacities and financial resources to the management cause?
- **National authorities.** Which local or national authorities have the mandate to develop and implement *rules, policies, legislation and accompanying measures* for the benefit of the territory or resources at stake?
- **Well trusted individuals.** Are there groups or individuals trusted by the majorities of the relevant social actors and possessing *convening power*, and/ or *negotiation and conflict management* skills?
- **Potential investors.** Are there local and non-local groups and individuals who may wish to *invest* human or financial resources in developing a more ecologically and socially sound situation in the local context?



- **Special circumstances.** Are there people who can convey lessons from examples of *similar territories and resources* managed with good results in relatively similar social contexts? Are there projects that may be willing to provide technical or financial help? Are there NGOs and associations that may provide some form of assistance?

By identifying not only the main actors possessing interests and concerns but also the ones possessing specific capacities and comparative advantages for the management of the territory or resources at stake, one can enrich the preliminary list of key relevant social actors and begin to explore the potential management roles they could assume (see Table 4.1, below).

Table 4.1 **Relevant social actors in Kikori watershed (Papua New Guinea)**  
(adapted from Regis, 1997)

Relevant social actor	Main interests and concerns	Main capacities and comparative advantages
Government	Revenue maximisation	Setting of policies and rules
Local Communities	Development and cash income; social & physical infrastructure	Living close to the natural resources, surveillance ability, knowledge of the resources
Local Land Owner Companies & Incorporated Land Groups	Business opportunities; capturing maximum rent and benefits from developers	Legal authority over some land
Chevron New Guinea & Partners	“Bottom line” (petrodollars)	Financial means
Local NGOs	Social development, awareness building, community empowerment, protection of forests	Staff time and (limited) resources that could be dedicated to the sustainable management of the watershed
WWF	Protecting biodiversity	Technical support, financial means, capacity to attract national and international attention
World Bank	“Independently certified community-based forestry and sustainable development projects”	Financial resources, technical staff, international visibility
Collins Pine company	Marketing “green timber”	Can provide economic opportunities for the sustainable use of timber
Kikori Pacific company	Local “green timber” operation	Local sustainable management capacities
Logging Companies	Quick profits through export of unprocessed logs	Financial resources

The preliminary identification of key relevant actors should be quite inclusive and detailed. More parties may mean more controversies and discussions, but excluding some of them may, in the long run, be even more costly. Factions and divisions rarely disappear spontaneously and, as they surface, they may direct their energies against the co-management process itself. In some cases, however, the outright exclusion of one key actor from the negotiation forum appears to be the necessary condition for all the others to be able to work together effectively, or even to work at all. This was the case for the Galapagos Marine Reserve, where the participatory process that set up both the legislation and the practice of the local co-management regime decided to eliminate from the area and from the overall management discussion the industrial fishing sector, whose goals and practices were deemed incompatible with the conservation goals of the reserve. The artisan fishermen and tourist operators participate in the management discussions, but the industrial fishermen are *de facto* and *de jure* excluded.<sup>18</sup> The decision has been fiercely opposed, and the industrial fishermen have kept both contravening the law, and fighting it in court. The last court case was for the alleged anti-constitutionality of the measure of exclusion, but the Supreme Court of Ecuador, in 2001, rejected nearly unanimously such a denunciation. The exclusion of industrial fishermen from the management of the marine reserve is now thoroughly legal.

The promoters of co-management should ask themselves whether the identified relevant social actors represent *all* major concerns at stake. In particular, does anyone speak for conserving local biodiversity, using resources in a sustainable way and preserving environmental functions? In many traditional societies this was the responsibility of the elders and chiefs, but cultural change has sometimes eroded these responsibilities.<sup>19</sup> In a number of countries, conservation and sustainable use are government statutory responsibilities, mandated to specific agencies.<sup>20</sup> When this is not the case, or when there is an ample gulf between stated responsibilities and actual performance, non-governmental organisations, conservation groups or even charismatic individuals may take upon themselves the defence of sustainability.

*Does anyone effectively represent the interests of future generations?*

Once the process promoters have identified the preliminary “relevant social actors” they may find out whether they are clear about their interests and concerns in the NRM unit, whether they are organised to communicate and promote them and whether they are willing to take on NRM responsibilities. Often, this is not the case. Some may not be willing to invest time and resources. Others may be willing but disorganised. Still others, willing to participate in management, might not have been identified as relevant actors. Basically, the “list” should be kept open and expected to change. The important point is that the promoters do not miss the social actors that obviously possess *major* and *distinct* interests, rights, concerns, capacities and comparative advantages in natural resource management— and especially the local communities.

What to do when an identified relevant actor (let us say a community in the vicinity of a forest) includes a *variety* of different interests, concerns and capacities *vis-à-vis* the natural resources? Should one or several actors be invited to participate in the management negotiation process? There is no simple answer to this ques-

<sup>18</sup> Heylings and Bravo, 2001; Bravo and Heylings, 2002.

<sup>19</sup> A telling example can be found in McCallum and Sekhran, 1997.

<sup>20</sup> In the case illustrated in Table 4.1 sustainability is stated as the main interest of an involved NGO (WWF). In Table 2.1 of Chapter 2, sustainability (expressed as “wildlife conservation”) is the concern of the state agency in charge of park management (this is a relatively special case, however, as it involves a protected area).

tion. The CM promoters may wish to explore the pros and cons of different solutions with the most directly concerned people and groups while assisting them to organise (see Chapter 5). For instance, a united community has more weight at the discussion table than several people who cannot agree on a common position. And yet, many communities may be willing to speak as one voice on certain occasions and as many on others. In other words, the people who find themselves united as “one relevant actor” for some decisions may need to split and regroup for another one. This phenomenon, at times referred to as “multi-cultural character” of stakeholders<sup>21</sup> should be acknowledged and recognised as normal. Allowing it to be accommodated in co-management settings would prevent the forced lumping of contrasting interests— a subtle but recognised problem of representative democracies.

*Many communities may be willing to speak as one voice on certain occasions and as many on others.*

Another fundamental dilemma: are “interests and concerns” and the willingness to participate sufficient for a social actor to claim a management role? Shouldn’t the promoters also ask: “Who are the social actors *entitled* to manage the unit(s) at stake?” They certainly should. And yet, the understanding of what constitutes a legitimate entitlement is an evolving socio-political phenomenon, best approached in a participatory way. The CM promoters could begin by asking the potential relevant social actors whether they consider that they have a fair claim to participate in the management of natural resources and, if so, on what grounds. In this way, they will obtain a list of factors and characteristics that at least *some* people recognise as legitimate “roots of entitlements” in the local context. Some examples of such factors and characteristics are listed in Checklist 2.2 in Chapter 2.



## 4.2 Is co-management needed? Is co-management feasible?

Collaborative approaches to natural resource management capitalise on two main lessons. The first is that there exist a variety of interests and concerns at stake for any given set of natural resources, and what meets conservation objectives and benefits one social actor, may harm another. The owners of tourist businesses may be well served by a hunting ban, but the local hunters club may find it totally inappropriate. The forest agency personnel may wish to restrict forest uses until timber can be felled and provide revenues to the district’s coffers, but the local residents may need timber on an on-going basis for their own domestic uses. The water resources utilised by the families living closer to a river may be interesting also for the peasants owning plots far from it, who may wish to gain their equitable water share. Even relatively homogeneous units (e.g., a local “community”) include among themselves a variety of interests and concerns and, as just men-

<sup>21</sup> Otchet, 2000.



tioned, may wish to speak as one voice certain times and as many voices at others. Indeed, accepting the existence and legitimacy of a multiplicity of voices and interests in resource management is a fundamental tenet of the co-management approach.

The second lesson is that different social actors possess different and often complementary capacities and comparative advantages to optimally manage a set of natural resources. For instance, important regulatory and coordination faculties are usually with public bodies, often at the national or district level, but local knowledge and surveillance power most often stay with local communities. In the words of Kothari:<sup>22</sup>

*“Communities lack the resources to tackle threats or ecological issues at a regional scale, and in many places have lost their traditional ethos and institutions; government agencies lack the necessary micro-knowledge, on-the-spot human power, or even often the necessary mandate when other agencies overrule them. With rare exceptions, neither local communities nor governmental agencies are able to face on their own the onslaught of commercial forces, or able to check the destruction caused by some of their own members”.*

Thus, both agency staff and local residents can broaden their perspectives and join forces to become stronger and more effective natural resource managers. Management partnerships can provide some protection against ineptitude and corruption (at times associated with agency management) and the parochialism and other shortcomings sometimes associated with local communities and other stakeholders. Examples of complementary capacities include entrepreneurial power (e.g., to set up a tourism initiative), unique technical capacity (e.g., understanding and acting upon the crucial conditions for the conservation of a species), business sense (e.g., for keeping accounts straight) and convening capacity (e.g., to obtain that all relevant actors sit together and begin discussions). All of the above are rarely found in one social actor alone!

Is it thus *a/ways* appropriate to pursue a management partnership? Is it sufficient that different social actors exist, with capacities to offer and interests and concerns to convey? Not really. In some situations the promoters need to use their best judgement before embarking in a process that may be unacceptably long or destined to failure under the prevailing conditions. For instance, when the basic conditions for freedom of speech and personal safety are missing, a “partnership” loses its meaning and attempting it may actually endanger people. When a seemingly endless “search for consensus” is utilised by some parties as a way to stall

*Different social actors possess different, and often complementary, management capacities and comparative advantages.*



<sup>22</sup> Kothari, 1995.

*There are situations of entrenched powers in which a confrontational strategy is more appropriate than a collaborative one. In such cases, promoting CM would mean supporting an illusory “social pacifier”, which may waste time and energy that can be used to muster a more useful opposition stand.*

decisions, others may be rightly compelled to abandon the game. And when rapid decisions and action are required, e.g., to block the very fast ecological deterioration of an area, it may be better to act unilaterally than to achieve a broad consensus on how to protect... a devastated territory. Most importantly, there are situations of entrenched powers in which a confrontational strategy is more appropriate than a collaborative one. In such cases, promoting CM would mean supporting an illusory “social pacifier”, which may waste time and energy that can be used to muster a more useful opposition stand. In general, the decision to pursue a CM process is both technical and political, and should thus be based on an analysis of technical and political needs.

It has been proposed<sup>23</sup> that there exist situations in which a management partnership is clearly needed, namely:

- when the active commitment and collaboration of various social actors is essential for the sustainable management of the natural resources; and
- when the access to the natural resources is essential for the livelihood security and cultural survival of one or more social actors.

In these cases, two fundamental values— environmental sustainability and livelihood security— need to be pursued together if they are to be pursued at all. Other conditions that would recommend embarking upon a CM process may be relevant from the perspective of particular social actors. For instance, from the point of view of government agencies possessing legal jurisdiction over a territory, area or resources at stake, it may be very appropriate to pursue partnership agreements and prevent wasteful conflicts when one or more of the following conditions apply:

- local actors have historically enjoyed customary/ legal rights over the territory or resources;
- local livelihoods are strongly affected by NRM decisions;
- the decisions to be taken are complex and controversial (e.g., different values need to be harmonised or there is disagreement on the distribution of entitlements over the land or resources);
- the current NRM system has failed to produce the desired results and meet the needs of the local actors;
- the relevant actors are ready to collaborate and request to do so;
- there is ample time to negotiate.

On the contrary, it may be inappropriate or not yet appropriate to embark on an entirely new CM process when very rapid decisions are needed (emergency situations).

From the point of view of local communities who have customarily enjoyed full access to the relevant territory, area or resources, it may be appropriate to pursue a NRM partnership when:

- powerful non-local actors are forcing their way into the territory or extracting resources with no respect for traditional customary rules and rights (in this case a partnership agreement with the state government or some NGO or research organisation may help assure some protection and respect for customary practices);

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<sup>23</sup> Borrini-Feyerabend, 1996.

- customary practices are falling into disarray and an open access status has ensued with resources being extracted in unsustainable ways.
- the state is willing to provide legal recognition to the customary rights as part of the co-management agreement.

It may instead be not advisable to enter into a NRM partnership when:

- in so doing the local communities would be renouncing a customary status of unique rights with no comparable advantage in exchange;
- the political environment does not secure the safety of all negotiating parties.

A mild version of participatory management, involving the consultation of key relevant actors and the seeking of a broad social consensus on management practices can be maintained to be an essential component of any successful management setting. A strong version of CM, implying the inclusion of various social actors in a management board endowed with authority and responsibility, may or may not be appropriate according to the specific conditions at stake. In general, a management partnership offers benefits and has costs. Some examples of such benefits and costs<sup>24</sup> are summarised in Checklist 4.3 and 4.4.

#### Checklist 4.3 Co-management of natural resources: potential benefits

- the effective sharing of management responsibilities among all the parties involved in the agreement lessens the burden of any one party in charge;
- CM produces negotiated specific benefits for all parties involved (this point has major ethical implications, as some negotiated benefits may be crucial for the survival of some local communities and/ or to compensate for losses incurred<sup>25</sup> or for the survival of wildlife species);
- alliances between governmental agencies and local social actors tend to fend off resource exploitation from non-local interests, which often represent the main threat to conservation and sustainable resource use;<sup>26</sup>
- CM promotes more effective management as a consequence of harnessing the capacities<sup>27</sup> and comparative advantages of various social actors (e.g., local knowledge and skills for monitoring the status of natural resources, proximity for surveying the protected area's borders, maintenance of natural resource uses that are beneficial to the local ecology);<sup>28</sup>
- CM reduces enforcement expenditures because of agreed, voluntary compliance;
- CM enhances the capacity for resource management among all parties involved (as a consequence of enhanced communication, dialogue and shared experience);

<sup>24</sup> Lists adapted from Borrini-Feyerabend, 1996.

<sup>25</sup> In countries of the South, more emphasis may be placed on tangible benefits such as access to natural resources for food and income, while in industrialised societies local residents may stress their active choice in the type of land uses they wish for an area.

<sup>26</sup> For instance, in Sariska Tiger Reserve (western India) villagers and local forest officials have fought together against mining interests (Kothari *et al.*, 1996).

<sup>27</sup> See, for instance, Gadgil *et al.*, 1993; Ruddle, 1994; and Poffenberger, 1997. See also the dedicated journals *Indigenous Knowledge and Development Monitor*, published by CIRAN in the Netherlands and *Etnoecologica*, published in three languages by the Centro de Ecología, Mexico.

<sup>28</sup> In Keoladeo National Park (India) buffalo grazing is an essential practice for the conservation of the local ecosystem and species, yet the PA management initially banned the grazing, which resulted in violent clashes with local herders and residents (Kothari *et al.*, 1996). In the Royal Bardia National Park (Nepal) ecological management relies on human disturbance in the form of grass cutting, which is currently "permitted" for a ten day period each year. All throughout Europe, the ecological conditions of many rural or Alpine environments are dependent on the permanence on them of local populations, engaged in cattle rearing and forest and water management.

- CM enhances the trust between state agencies and relevant actors, shared “ownership” of the conservation process, and strong commitment to implement decisions taken together;
- CM promotes a sense of security and stability (of policies, priorities, tenure...) leading to increased confidence in investments, long-term perspective and enhanced sustainability of negotiated management;<sup>29</sup>
- CM promotes understanding and knowledge among all concerned about the views and positions of others, preventing or minimising conflicts and disputes due to miscommunication;
- CM promotes the public awareness of conservation issues and the integration of conservation and sustainable use efforts within social, economic and cultural initiatives;
- CM contributes towards participatory democracy in society (by promoting social communication, conflict prevention and resolution, and the development of rules, policies and laws via the direct involvement of citizens and interest groups).

#### Checklist 4.4 Co-management of natural resources: potential costs and obstacles

- early and substantial investments of time, financial resources and human resources (high “transaction costs”) in both the preparation of the partnership and negotiation of agreements. This is a serious issue, as the time requirement may be unaffordable for short-term projects and/ or the financial requirements may be unaffordable for some relevant actors. The human resources need to include professionals with uncommon skills (e.g., capable of carrying out a fair stakeholder analysis, supporting the organizing of the relevant actors, facilitating participatory processes and the negotiation of agreements, etc.) who may not be easily available.
- potential opposition by the parties required to share authority, substantially change their livelihood systems<sup>30</sup> or forego current advantages and benefits (the commitment of most parties in the CM process is a crucial condition for success);
- explicit conflicts among relevant social actors with different power bases, which, in the absence of protection measures, may bring about negative outcomes for the weaker ones;
- chances of negotiation stalls when a co-management agreement cannot be achieved without compromising in a substantial way the interests and concerns of some parties (e.g., some key conservation or development goals);
- poor sustainability of the negotiated agreements because of underestimated problems or new intervening factors (e.g., changes in the economic conditions that make a management option viable and profitable,<sup>31</sup> changes of political administration, emergence of new relevant social actors, violent unrest, etc.).

Ultimately, a judgement should be made as to whether the expected benefits are likely to justify the human and financial resources to be invested in the co-management process, *i.e.*, as to whether co-management is indeed *needed*. If so, this

<sup>29</sup> For instance, co-management has a great role to play in so-called “peace parks” in trans-boundary situations (Sandwith *et al.*, 2001).

<sup>30</sup> This may be the case also for local communities. In South Africa, local communities will oppose the establishment of protected areas if no benefits are made available to them (Koch, 1994).

<sup>31</sup> As expressed by Baland and Platteau (1996, page 351) “...even well conceived schemes of co-management become seriously stressed as market opportunities expand and cause an intensive commercial exploitation of certain natural resources.” For instance, in Narayan Srovar Sanctuary (Western India) villagers welcomed the de-notification of the reserve to make way for a cement factory, since they got no income from the forest and are expecting jobs from the factory (Kothari *et al.*, 1996).



information should be combined with the results of a feasibility analysis to decide whether a co-management process should be initiated.

### The feasibility analysis

A co-management feasibility analysis begins by a broad assessment of the existing management system,<sup>32</sup> structure and practices, the recognised entitlements and the unrecognised claims for the territory or resources at stake. Together with the list of preliminarily identified relevant actors, this offers a picture of the power system and relationships at stake. The promoters of the CM process should examine this in the light of the legal, political, institutional, economic and socio-cultural characteristics of the context at stake. Some feasibility questions useful in such an analysis are listed in Checklist 4.5. These questions do not spell out all the conditions that need to be met for co-management to be successful. They offer, however, an idea of the potential obstacles and difficulties that may be encountered in any specific context.

#### Checklist 4.5 Investigating the co-management feasibility in a specific context

##### Is the process legally feasible?

Who has the mandate to control the land and resources? Can a pluralist approach be accommodated within the existing customary/ legal frameworks? Examine traditional, customary law and modern laws, regulations, permits....

##### Is the process politically feasible?

What is the history of land management and resource use in the territory or area at stake? Examine current political will and stability, the capacity to enforce decisions, the confidence in the participatory process, the presence of phenomena such as corruption and intimidation.... Are there relevant actors with strong interests to maintain the *status quo*? If some actors are better served by the absence rather than the presence of co-management agreements (for instance they currently enjoy undue benefits and/ or have others bear substantial costs in their place) they have no incentive to enter into a process of negotiation and may attempt to block it or sabotage it from the outside. This is sometimes expressed as the presence of actors with strong “better alternatives to a negotiated solution” (BATNAs)— a powerful feasibility obstacle to co-management.

##### Is the process institutionally feasible?

Is there a chance of building a pluralistic management institution for the territory, area or natural resources? Examine inter-institutional relations and their possible conflicts, existing examples of multi-party resource management organisations and rules, the capacity of social actors to organise themselves and to identify representatives to convey their interests and concerns....

##### Is the process economically feasible?

Are there economic opportunities and alternatives to the current, possibly inefficient exploitation of natural resources? Examine local opportunities to reconcile the conservation of nature with the satisfaction of economic needs, examine the extent of poverty in the region, the availability of capital for local investments....

##### Is the process socio-culturally feasible?

Are or were there traditional systems of natural resource management in the context at stake? What are (or were) their main features and strengths? Are those still valid today? Are the traditional NRM systems

<sup>32</sup> This should involve not only an analysis of the *de jure* conditions (the existing legal entitlements) but also of the *de facto* conditions, i.e., the management roles actually taken up by various people and institutions. You may wish to answer questions such as: who takes decisions? Who knows about those decisions? Who is accountable to whom? Who plans? Who advises? Who has access to the resources? Who benefits from the resources? Who evaluates whether NRM activities need to change?

still in use? Regardless of the answer, why? Who is keeping them alive? What is specifically sustaining or demeaning them? If they are not being used any more, does anyone have a living memory of the systems (for instance, are there elders who practiced them and still remember “how it was done”)? Examine the current population status, population dynamics and structure, the main socio-cultural changes under way. Examine social and cultural diversity amongst the relevant social actors and the history of group relations among them. Examine factors affecting opportunities for social communication, including:

- language diversity
- varying degrees of access to information
- different attitudes, for example with regard to speaking in public or defending personal advantages
- traditional and modern media currently used in the particular context

An important question is also, “For all main relevant actors, *what are the best alternatives to a negotiated agreement* (BATNA)?” If some of them are better served by the absence rather than the presence of co-management agreements (e.g., if they enjoy undue benefits and/ or have others bear substantial management costs, so that their BATNA is the maintenance of the existing situation<sup>33</sup>) they will have no incentive to enter into the process of negotiation and they may attempt to block it or sabotage it from outside. This can be a crucial feasibility obstacle in any environment.

It is important to understand whether some social actors with vested interests in the *status quo* may stall the process of change. In such cases the feasibility of co-management is severely reduced and outright opposition to the CM process can be expected. Some special incentives, cajoling or even law enforcement and coercive measures may be needed before all actors agree to negotiate. Outsiders, however, should carefully investigate the local situation before assuming that a group is blocking negotiations to maintain an unfair advantage. A social actor may rightly feel better protected by a firm and uncompromising stand than by entering into a negotiation as the weakest among several parties.

What can be done when the desired feasibility conditions are not in place, or the BATNAs<sup>34</sup> of several social actors are very attractive? One strategy is to proceed towards the partnership and, in parallel, attempt to modify the conditions and enhance the collaboration incentives of all relevant actors. For instance, limited pilot agreements may be developed while changes in the relevant policies and legislation are being discussed. People and institutions may be offered training programmes and seminars to familiarise themselves with the partnership approach. A public debate on management issues may be stimulated, enhancing the social status and prestige of whoever will act to solve current problems. When obstacles and bottlenecks are clear, the relevant actors in favour of the co-management process may also meet to identify, discuss and implement initiatives to remove them.

Another strategy in the face of strong odds is simply to give up the particular site, and concentrate resources and efforts on territories with better chances of developing successful management partnerships. This is the recommendation surfacing from a failed integrated conservation and development project in Papua New Guinea. The project focused on an area important for biodiversity, but already targeted by a powerful logging operation, which had established linkages with the local communities and aroused vested interests. The project did not manage to reverse any of that, and wasted lots of time and resources in the process. Another lesson learned is that timing may be crucial. If external conservationists wish to

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<sup>33</sup> LeBaron *et al.* 1995.

<sup>34</sup> This term is defined in Checklist 4.5.

promote sustainable development initiatives, they may need an early entry with local communities and the careful building of rapport and trust.<sup>35</sup>

A summary of the results of a feasibility analysis carried out prior to the inception of a co-management process is reported in Table 4.2.

<b>Table 4.2    Developing a co-management setting in the Sierra Tarahumara (Mexico): are the necessary conditions in place?</b> (adapted from Cordova y Vazquez, 1998)	
In a feasibility study of collaborative management for the sierra Tahumanara, a list of important conditions were compared with the local socio-economic situation and consequently assessed. Five of the main conditions were found to be strongly satisfied (+++), three moderately satisfied (++) and two weakly satisfied (+). Three conditions were found to be variable relatively to the specific interest group. The study concluded that a collaborative management regime would be feasible in the region.	
Conditions	Assessment
1. There exist several problems to discuss, several ideas about how to solve them, and several interest groups involved. No interest groups can solve the problems alone.	+++
2. Collaboration is convenient for all parties as they all have common interests and concerns and are inter-dependent.	+++
3. The interest groups are willing to collaborate with external bodies.	++
4. The institutional and legal context is favourable to involving several interest groups in decision making and the development of agreements	+++
5. The moment is favourable: the issues have been already extensively debated and there is time to take decisions.	++ +++
6. There are local capacities to develop a negotiated decision: information and prior experiences are available.	+++
7. There are local capacities to develop a negotiated decision: the interest groups are intrinsically homogeneous, internally cohesive, can easily identify a representative, have functional mechanisms to take their own decisions, and have experience in taking decisions.	+ ++ variable scoring
8. There is a power balance around the decision-making table. The arena will be fair.	+



### 4.3    Gathering resources and creating a Start-up Team

As part of exploring feasibility, a most important question the co-management promoters ask themselves is: “What human and financial resources can we count on?” Fortunately or unfortunately, in fact, promoting a co-management process is

<sup>35</sup> McCallum and Sekhran, 1997.

all but routine work, and needs especially dedicated resources. The process demands energy, passion, willingness, creativity, sacrifice, continuity... and it needs at least one and possibly more “champions”— dedicated individuals for whom work is a matter of personal satisfaction and pride more than a job or a duty. As stressed by professionals with direct field experience, the development of co-management regimes has much more to do with informal than with formal relationships.<sup>36</sup> For instance, it depends crucially on the capacity of some individuals to communicate with others on a personal basis, and elicit their confidence, trust and support. In addition to the uncommon human qualities of the process promoters, specific capacities and technical support may also be required for a variety of tasks— from mediating conflicts to understanding ecosystem functioning, from social organising to setting up economic enterprises. The co-management promoters need to be able to recognise when such forms of technical support are needed, and where they can be accessed.

Financial support to a CM process is very useful to sustain social communication activities, carry out specific studies or provide professional assistance to the negotiation process and to understand all the issues at stake. Conservation and development projects have played a useful role here, providing funds for events, professional facilitators for meetings and helping to overcome the “culture of distrust” that often inhibits positive relationships between governments and local groups.<sup>37</sup> Yet, co-management should not be made to *depend* on large influxes of financial resources. It may even suffice to have the commitment of some individuals to change a situation of “business as usual” and promote dialogue and agreements



in place of hostility, and interest groups may provide in kind resources as necessary. Indeed, a sudden influx of major external resources may create more problems than solutions and there are cases of co-management that have been thwarted and broken down by financial inflows provided in inappropriate amounts and with strings attached.<sup>38</sup>

As soon as the need and feasibility have been assessed and the necessary human

and financial resources have been set aside, it is advisable to create a co-management “Start-up Team”, to be in charge of preparing and launching the whole process.<sup>39</sup> A Start-up Team (at times also called initiation committee, launch com-

<sup>36</sup> Daniel Ngantou, personal communication, 1999. See also Nguinguiri, 2003.

<sup>37</sup> Freudenberger, 1996.

<sup>38</sup> Sarin, 2003.

<sup>39</sup> National Civic League, undated.



mittee, pilot team, etc.)<sup>40</sup> is a small group of individuals dedicated to preparing and launching the co-management process. The group may play the main facilitating role in the process, or it may decide to use the services of a third party to facilitate the negotiation of the CM agreement. The number of Team members is generally fewer than ten, in extreme cases even one only,<sup>41</sup> with occasional help from others. Often, the Team is composed of volunteers. At times it includes some paid professionals, especially when a project or other externally supported initiatives are involved. It is important that the people in the Start-up Team have a high personal motivation but that they are also socially recognised as credible and trustworthy. In most cases this amounts to a strong recommendation to involve *local* people in the Start-up Team, and sometimes to even compose it of local people only. In addition, the team should be “diverse”, *i.e.*, it should include people with whom all the relevant actors expected to take a role in the management process are able to identify, relate and communicate. In other words, all social actors concerned with the management at stake should trust and be able to relate easily with *at least one person* in the Start-up Team, even if they do not feel represented by him/ her.

An interesting example of a Start-up Team, called *Grupo Nucleo*, facilitated the process that brought about the co-management setting for the Galapagos Marine Reserve in Ecuador. In 1997 none of the institutional or legal frameworks that support this setting today were yet in place. The local *Grupo Nucleo*, including individuals close to the fishing and tourist sector as well as to the local research and conservation bodies, first gathered local interests and concerns in view of the upcoming special law of Galapagos. On the momentum created by such a law, it then facilitated a broad social agreement on a new cooperative, consensus-based institutional setting. For the Galapagos Marine Reserve, all the achievements of today have roots in the numerous meetings and tireless organising promoted by the *Grupo Nucleo* and supported by a far-sighted project from 1997 to 1999.<sup>42</sup>

A good Start-up Team is active, efficient, multi-disciplinary, transparent in all its activities and determined to launch but not to lead or dominate the co-management process. In fact, its role and responsibility are limited to only one phase of the process, namely the one in which the partnership is prepared and rooted in the local context (see Figure 4.2). After that, the social actors themselves need to take charge.

Already at this stage we are facing one of the main characteristics of a co-management process: the iterative mode of work. Nearly every step in co-management is susceptible to subsequent adjustments and re-elaboration, but particularly so the initial steps. These include the preliminary identification of the territory or resources to be managed and of the “relevant social actors” to take an active role in that. These definitions are among the most delicate and controversial in the whole process and thus, inevitably, they are a first approximation of what will be agreed upon by the relevant partners. They even present some circular dilemma. For instance, the management boundaries should be established by the partners involved. But then, the “partners” are themselves determined by their own inter-

*Key criteria to identify the members of a Start-up Team:*

- *diversity*
- *credibility*
- *personal motivation*
- *excellent capacity to communicate.*

*One of the main characteristics of a co-management process is the iterative mode of work. Nearly every step in co-management is susceptible to subsequent adjustments and re-elaboration, but particularly so the initial steps.*

<sup>40</sup> In French, terms that are used are *Comité de Pilotage* or *Noyau Dur*, in Spanish *Grupo Nucleo* or *Comité de Lanzamiento*.

<sup>41</sup> In the Nta-ali forest (Cameroon) a co-management process was single-handedly promoted by a key forest official, native of the local community and member of the local elite. His capacity to mediate between the culture of the governmental agencies and the local culture, and the support provided by a dedicated project allowed him to win the confidence of all major relevant social actors. See Box 1 in Borrini-Feyerabend *et al.*, 2000.

<sup>42</sup> Heylings and Bravo, 2001. In some way this *Grupo Nucleo* was already a co-management platform, as it promoted a number of initiatives and events with direct management results. On the other, however, it was only a Start-up Team, as it has now been disbanded and a legal pluralist decision-making system has taken its place.

*There is no “right process” to develop a “right management partnership” but the quality of the process is extremely important, as a partnership is generally as strong, or as weak, as the process that generated it.*

ests, concerns and capacities *vis-à-vis* the area to be managed! As mentioned, it may be wise to start out with a relatively small geographic area and its primary actors (e.g., the ones with longest tenure status, specific government mandate, highest dependence and highest capacities and comparative advantages *vis-à-vis* the territory or resources at stake), but then such actors should review the definition of the management unit(s) and the list of recognised relevant actors. And so on.

There is no recipe for developing a management partnership. While extremely valuable lessons have been learned in different cases throughout the world— and some such lessons are the very heart of this book— in every new situation the partners themselves need to decide on the most appropriate process to follow. In other words, there is no “right process” to develop a “right management partnership” but the *quality of the process* is extremely important, as a partnership is generally as strong, or as weak, as the process that generated it.

In general, three phases in the co-management process can be broadly identified:

1. organising for the partnership;
2. negotiating the co-management agreements and organisations;
3. implementing and reviewing the agreements and organisations (learning by doing).

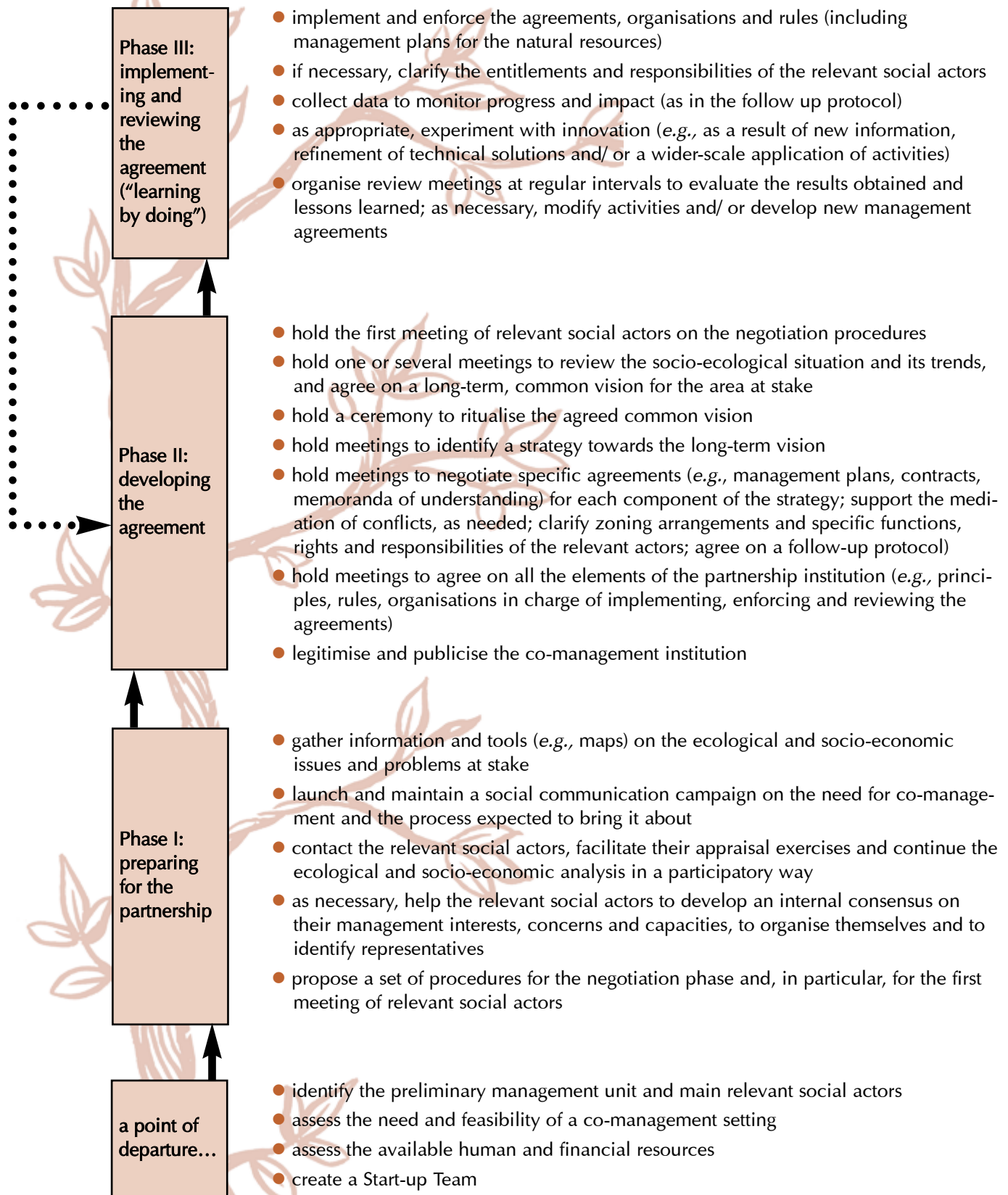
These phases are schematically illustrated<sup>43</sup> in Figure 4.2 and will be further described in Chapters 5 and 6 of Part II and in Chapter 9 of Part III of this volume.

Box 4.8 **The co-management conveners**  
(adapted from Ramírez, 1998)

Any group or organisation seeking to convene other relevant actors should first analyze its own role and objectives, and its relationship with those actors it seeks to invite. The questions to ask are: are we in a position to convene? What are the constraints of our organisation? Do we have the legitimacy, power and urgency required to bring the parties together? In the words of Gray (1989) “The convener may or may not be an actor in the issue or problem situation. The role of the convener is to identify and bring all the legitimate actors to the table. Thus conveners require *convening power*, i.e., the ability to induce social actors to participate. Convening power may derive from holding a formal office, from a long-standing trusted reputation with the relevant local actors, or from experience and reputation as an unbiased expert on the problem. The conveners’ tasks are distinct from those of a third-party mediator, although at times one person can assume both roles.” The decisions made by the convener are biased by the convener’s understanding of the nature of the issue, the boundaries of the issue, and the criteria to select the relevant actor that appear to be legitimate. These are always approximate decisions and become more accurate through a cyclical adjustment process. Another question to ask is to what extent is the convener able to transform itself during the process.

<sup>43</sup> Modified from Borrini-Feyerabend, 1996.

Figure 4.2 **Phases of a collaborative management process**





#### 4.4 The special case of indigenous peoples: can co-management help them assert their rights to land and natural resources?

Indigenous peoples are self-identified human groups characterised by peculiar socio-political systems, languages, cultures, values and beliefs, by a close relationship with the land and natural resources in their territory, and often by historical continuity with pre-colonial societies.

The imposition of external values, technologies and livelihood systems has been a main feature of colonisation, imperialism and unequal relationships with traditional and indigenous peoples. Today's new ideas and concepts, such as sustainable use or co-management of natural resources are easily perceived as a new version of such imposition. However sincere the intention of co-management promoters may be, it is a fact that indigenous control over territories and resources has been and continues to be systematically diminished, not least because of conservation aims (in particular to incorporate territories into official protected areas). Thus, while some indigenous peoples and traditional communities may be willing to



enter into management partnerships with other social actors, others understandably remain reluctant to any type of external influence on their livelihoods and environments. They prefer to hold to their ancestral land rights and management systems without interfacing or compromising with other systems (see Box 4.9). This

may be a decision in view of cultural survival, especially where traditional knowledge systems are already fragile because of strong external influences, but local resistance to decisions and forms of “development” defined from outside has often been beneficial also to conservation.



Box 4.9 **Mayan resistance in Totonicapán:  
a gentle reverberating echo in the volcanic altiplano**  
(adapted from Gramajo, 1997)

Invasions on the ancestral lands of the K'iché in the volcanic Sierra Madre ranges of Totonicapán were for territorial domination in the pre-Hispanic and colonial eras. More recent invasions have come in the form of the "Green Revolution": agricultural reforms and rural development projects over the last three decades, which have manipulated use and access to natural resources. Rather than alleviating poverty, however, most interventions benefited the rich and created dependency on modern technology, unaffordable by most peasants. Indiscriminate logging, inappropriate agricultural technologies, "improved" seeds and inadequate water resource management generated pollution, diminished endogenous flora and agricultural biodiversity, and created serious socio-economic impacts and health problems for the native Mayans (95% of the local population). Projects that tried to identify local needs, aspirations and potential ended up reflecting more the opinions of external planners than of local people. "Local participation" has been usually sought only after the design of the project was done and established.

The Mayan culture keeps alive its ancestral resource knowledge and social structures through an oral tradition rich in topographic vocabulary, and a world vision focusing on the value of nature, specific ceremonies, social solidarity and consultation with the community elders. A recent welcome trend has been towards re-evaluating indigenous resource management practices in communally owned forests. There has also been a strong, if not always successful, show of resistance to the unsustainable exploitation and degradation of natural resources by outsiders (loggers, entrepreneurs and transport companies that succeeded in gaining concessions). In one particular region the local people, jointly with the reforestation committee and the municipality, reached an agreement to prohibit governmental and non-governmental agencies from developing projects in communally-owned forests. One Elder declared: "...the government wanted to impose on us a project to create a market for our wood. If we would have allowed it, we would have nothing today. We do not think in the government's way, for we believe that the mountains can give us all we need, but all in measure. We take just what we need, and no one from our community makes a business out of wood or timber." Another community imposed grave sanctions against a park ranger who abused his authority for personal benefit, destroying the oldest and largest tree in the forest, which was sacred to the people. In another case, a mayor was imprisoned for authorising logging concessions without community approval. Since then, no mayor has dared to authorise any logging concession.

As only recently fully acknowledged and described, biological and cultural diversity are strongly linked, as are their alarming losses currently experienced in the world.<sup>44</sup> By preserving cultural integrity, the conditions for maintaining a specific type of interaction with the environment and natural resources are also maintained. The interests of indigenous peoples and conservationists may thus broadly coincide and management partnerships may play a vital role to promote both the survival of cultural diversity and the safeguard of biological environments.

In the light of the above, are indigenous peoples "social actors" on the same level as all others, such as a private firm or a governmental agency? Many would stress that they are not. Indigenous peoples hold ancestral rights to the environments where they have lived and worked for centuries if not millennia.<sup>45</sup> They usually do not possess the economic strength and legal backing enjoyed by modern entrepreneurs and affluent people. And, importantly, many of them have lifestyles with limited impact upon the land (the very reason why, in their midst, there is still much worth conserving and managing sustainably) and are bearers of valu-

<sup>44</sup> Posey, 1996; Maffi, Oviedo and Larsen, 2000.

<sup>45</sup> Price-Cohen, 1998.

able and unique local knowledge and skills. In other words, they are both a comparatively weaker and more benign and useful social actor.

The Convention on Biological Diversity stresses that: “special consideration [should be] given to the indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity”.<sup>46</sup> Such special considerations should involve not only respecting the cultural identity of indigenous and traditional peoples, but also ensuring mechanisms that guarantee fair communication and consultation processes, continuity and/ or revitalisation of their traditional lifestyles (as deemed appropriate by the traditional societies) and the active education and enrichment of non-indigenous partners concerning traditional values, knowledge and practices.

In practical terms, a Start-up Team should make sure that the rights, needs and capacities of traditional communities are duly respected and recognised. It should also veer to avoid their “acculturation”, which may be one of the most insidious dangers of co-management for an indigenous community. Many aspects of the participatory management model proceed from a mainstream logic and value system that, in the attempt of accommodating multiple interests, may overshadow or uproot the fundamental tenets of a traditional society. For example, practices such as assigning economic value to natural resources or promoting gender equality in natural resource management may be perceived as appropriate to most social actors but objectionable and destructive to some traditional communities. These different views should be handled with respect. To this end, the Start-up Team has to be well informed about the values, beliefs, lifestyles and management systems of the indigenous and traditional partners, and aware of the benefits of local cultural cohesion. A Start-up Team is a herald of an opportunity to review and improve resource management practices, not an active promoter of social restructuring and cultural change. It may assist different groups within a society to develop their own views on the issues at stake, but the ultimate decisions about how to handle issues of internal consensus and representation belong to the peoples themselves.

In the last decades, many indigenous communities have agreed on various forms of co-management settings for protected areas. In Australia,<sup>47</sup> relatively strong co-management arrangements for protected areas have been developed following the passing of legislation that recognised aboriginal rights to land and natural resources. In 1981, Gurig National Park became the first jointly managed National Park in Australia and since then further co-management arrangements have been developed for other parks in various Territories, according to several “models” (see Table 4.3). Joint management represents a trade-off between the rights and interests of traditional owners and the rights and interests of government conservation agencies and the wider Australian community. In some arrangements developed subsequent to the Gurig model, the trade-off involves the transfer of land ownership to Aboriginal People in exchange for continuity into the foreseeable future of the national park status and shared responsibility for park management. The transfer of ownership back to Aboriginal People is thus conditional on their support (through leases or other legal mechanisms) for the continuation of the National Park. The land occupied by a Park is simultaneously returned to aboriginal ownership and leased back to a government conservation agency under a co-management board and with the agreement of an arbitration process in case of disputes.

*...a Start-up Team should make sure that the rights, needs and capacities of traditional communities are duly respected and recognised. It should also veer to avoid their “acculturation”....*

*...the ultimate decisions about how to handle issues of internal consensus and representation belong to the peoples themselves.*

<sup>46</sup> Convention on Biological Diversity, Article 8j.

<sup>47</sup> Smyth, 2001.

Table 4.3 **Four co-management “models” in Australia**  
(adapted from Smyth, 2001)

Gurig model	Uluru model	Queensland model	Witjira model
Aboriginal ownership	Aboriginal ownership	Aboriginal ownership	Ownership of land remains with the government
Equal representation of traditional owners and government representatives on management board	Aboriginal majority on management board	No guarantee of Aboriginal majority on management board	Aboriginal majority on management board
No lease-back to government Agency	Lease-back to government agency for long period	Lease-back to government agency in perpetuity	Lease of the national park to traditional owners
Annual fee to traditional owners (for the use of land as a National Park)	Annual fee to traditional owners, community council or board	No annual fee paid	
Example: Gurig National Park	Examples: Uluru-Kata Tjuta, Kakadu, Nitmiluk, Booderee and Mutawintji National Parks	Examples: none finalised; the model is currently under review...	Example: Witjira National Park

A further, more recent form of protected area established voluntarily on existing aboriginal-owned land—the Indigenous Protected Area model—presents a challenge to all co-management models, as it is more advanced in terms of self-determination of the aboriginal owners, and self-management practices (see Box 4.10).

Box 4.10 **The new Indigenous Protected Area model (Australia)**  
(adapted from Smyth, 2001)

Since 1998, Indigenous Protected Areas (IPAs) have become officially recognised and promoted in Australia as part of the national protected area system.<sup>48</sup> It was in fact realised that some aboriginal landholders were prepared to “protect” their land and part of the Australia National Reserve System in return for government funds and, if required, other types of management assistance. The first IPA was formally proclaimed in August 1998 over an aboriginal owned property called Nantawarrina in the northern Flinders Ranges of South Australia. Several more IPAs were proclaimed in other states during 1999.

IPAs can be established as formal conservation agreements under state or territory legislation, or under Indigenous Law. Aboriginal land owners there have a variety of legal mechanisms to control activities on their land, including local government by-laws and privacy laws. The declaration of IPAs is the first occasion in Australia whereby aboriginal land owners voluntarily accepted a protected area status over their land. Because the process is voluntary, and fully prompted and promoted by them, Aboriginal People choose the level of government involvement, the level of visitor access (if any) and the extent of development to meet their needs. In return for government assistance, aboriginal owners of IPAs are

<sup>48</sup> <http://www.ea.gov.au/indigenous/ipa/index.html>

required to develop a management plan and to make a commitment to manage their land (and/ or waters and resources) with the goal of conserving its biodiversity values.

IPAs are attractive to some aboriginal land owners because they bring management resources without the loss of autonomy associated with co-management regimes (see Table 4.3). IPAs also provide public recognition of the natural and cultural values of aboriginal land, and of the capacity of the Aboriginal People to protect and nurture those values. IPAs are attractive to government conservation agencies because they effectively add to the nation's conservation estate without the need to acquire the land, and without the cost of establishing all the infrastructure, staffing, housing etc of a conventional national park. Overall, IPAs can be seen as a particularly strong example of Community Conserved Area (strong insofar as the decision making power is entirely in the hands of the Aboriginal People and the government has understood and legalised that).<sup>49</sup>

In other world regions, such as Latin America and the Caribbean, the experimentation with co-responsibility in PA management between the civil society and the state has also been gaining significant strength and recognition. A recent review identified 79 distinct experiences in Central America<sup>50</sup> with an important variety of management types taking advantage of the relative state of flux and openness of the relevant legislations and policies, although the difficulties and potential fail-



ures faced by many of these experiences should not be underestimated.<sup>51</sup> Experiences in the Andean region also offer a number of inspiring examples, including areas voluntarily subjected to a conservation regime by indigenous and local communities with the explicit intent of obtaining a legal recognition of their customary land tenure rights, and assurance from governments that the

land will be protected and not destined to a variety of forms of exploitation.<sup>52</sup> In a climate of tenure insecurity, lack of confidence in state institutions and policies, and after a long history of abuse of indigenous and community rights, people are searching for all possible instruments to secure long-term access to natural resources. Under present circumstances in a number of Latin American countries a protected area regime can offer them such security, besides also attracting funding, support, visibility, and income from tourism to the concerned areas. When this proves true, community benefits related to the establishment of a co-management agreement can be substantial.

<sup>49</sup> Borrini-Feyerabend *et al.*, 2004 (in press).

<sup>50</sup> Solis Riviera *et al.*, 2003.

<sup>51</sup> Kaimowitz, Faune and Mendoza, 2003. See also Box 3.17 in Chapter 3.

<sup>52</sup> Oviedo, 2003. See also Boxes 4.4 and 4.10, in this Chapter.



**Box 4.11 The Kaa-ya Iya National Park in Bolivia:  
ensuring territorial recognition for the Guaraní Izoceño people**  
(adapted from Winer, 2001 and Winer, 2003)

The Kaa-ya Iya National Park (83.4 million hectares) is the largest in Bolivia and contains the world's largest area of dry tropical forest under legal protection. Its most unique characteristic, however, is that the park was created in response to demands for territorial recognition by the Guaraní Izoceño people. This is the first park in the Americas declared on the basis of a demand by an indigenous people and the only park in the Americas where an indigenous people's organisation (CABI—Capitanía del Alto y Bajo Izozog) has primary administrative responsibility. In fact, the Park's Management Committee comprises staff of the Ministry of Sustainable Development and Planning and representatives of CABI, the Wildlife Conservation Society (WCS, a foreign NGO), local municipalities, a community group of Chiquitanos, the Ayoreo Community of Santa Teresita and the group of women of the Izozog indigenous communities. The indigenous representatives are the majority in the Committee, which participates in the definition of policies for the management of the Park.

By Bolivian law, the “*Capitanías*” are indigenous municipalities that own and administer the land under their jurisdiction. In 1993, the new Agrarian Reform Law first recognised Bolivia as a multiethnic and multicultural country. This law allowed for the existence of community land ownership and legalised the creation of indigenous territories (*Territorio Comunitario de Origen*—TCO). It was not until these provisions on legal land titling were implemented in the Kaa-ya Iya area that CABI and the indigenous communities could become fully involved in management of the Park, and that many conservation problems started to be effectively addressed. CABI is the long-standing political authority structure of the Guaraní people of the Izozog. It has contributed significantly to the social mobilisation that ushered the national decentralisation reforms. For the indigenous communities represented in CABI, legal recognition of their TCO was the primary condition for any meaningful conservation commitment for their lands

Having established the park has only partially fulfilled the historic objective of re-claiming land upheld by CABI. Currently, 1.9 million hectares bordering the park and straddling the river are titled in their favour and the rest has being gazetted as park territory. CABI would have preferred that all 5.3 million hectares (the 1.9 m. ha. land settlement and the Park's 3.4 m. ha.) were titled in their favour. The park's creation, on the other hand, was a realistic political compromise on all sides. It served to halt the rapid expanse of the agro-industrial sector, fanning out inexorably from its base in Santa Cruz de la Sierra (Bolivia's second largest city), and ensured that traditional lands were not to be clear-cut for farming. CABI has also been able to capitalise on its internal cohesion to pressure the hydro-carbon industry into making significant compensatory payments to them for the impact of that portion of the 32 inch-diameter gas pipeline with a total length of 3,146 kilometres that runs through their indigenous territory and the park. Such compensatory payments, totalling \$3.7 million, and the activities that came in with the hydro-carbon industry, ensured CABI's ability to invest significant funds in the running of the park. This strengthened their standing as effective co-management partners. In addition, the hydro-carbon funds were crucial to supporting the indigenous organisations themselves, promoting rural development and accelerating the process of titling indigenous lands. Co-management would have taken hold in Bolivia without these funds, but would not have developed so rapidly, or garnered as much enthusiasm from the governmental agency in charge.