

PART I
Chapter 4

Politics of Natural Resources

“As we progressively understood the causes of environmental degradation, we saw the need for good governance. Indeed, the state of any country’s environment is a reflection of the kind of governance in place, and without good governance there can be no peace. Many countries, which have poor governance systems, are also likely to have conflicts and poor laws protecting the environment.” Wangari Maathai, President, Greenbelt Movement, Kenya; Nobel Prize Winner.¹

Previous chapters have provided an overview of the actual and potential contribution of natural resources to pro-poor growth. As in most cases, governance-related factors, notably those related to control over resources, play a key role in constraining or supporting the contribution of natural resource management to pro-poor growth. This chapter focuses on the political and governance dimensions of pro-poor natural resource management and growth.

Politics is here defined as the way that societies choose different policies to achieve their desired outcomes. The concept of governance is somewhat broader and includes all the rules and enforcement mechanisms that guide and coordinate people's behaviour with regard to a concerted outcome. This includes intended as well as unintended processes.

The politics of natural resource management are typically located in a stress field, where policy makers have to balance a wide range of competing objectives. For example, increasing growth and empowering poor people socially have often been regarded as two disparate and competing goals. Yet there is often a wide range of policy options that does reconcile these seemingly opposed objectives.

An analysis of the governance dimensions of natural resource management can help clarify governance mechanisms and identify policy options that support multiple objectives. A better understanding of governance mechanisms is a precondition for the successful implementation of policies that foster pro-poor growth while managing natural resources in a sustainable way.

4.1. Key factors for natural resource management

Three types of factors can be distinguished which shape the management of natural resources and governance-related arrangements: first, the characteristics of natural resources; second, the actors involved; and third, the institutional framing and rules (FAO, 1997).



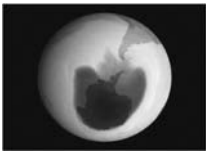
4.1.1. Some key characteristics of natural resources and implications for governance

The following two features determine to which of the four classifications of goods outlined below a natural resource belongs (Figure 4.1).

- **Feasibility of exclusion:** Is it feasible to control access to the resource (and exclude some users)?
- **Rivalry in consumption:** Can an agent use the resource without reducing everyone's individual utility?

Private goods are resources for which exclusion is feasible and there is rivalry in consumption. Examples include private lands, forests or mines. Private goods need not be in private hands. Resources owned by the state (e.g. land, naturally grown trees or mineral deposits) would also fall into the category of private goods, provided the state actually enforces its right to exclude unauthorised users from access to the resources. Generally,

Figure 4.1. **Characteristics of natural resources**

		Feasibility of exclusion	
		Yes	No
Rivalry in consumption	Yes	 Private good	 Common pool good
	No	 Club good	 Public good

Source: Ostrom (1990), modified.

the parties holding property rights to private goods resources have direct incentives to use them in a sustainable way and to invest in their maintenance. Unclear or non-enforced access rights restrictions can, however, directly undermine these incentives. In many countries, for example, natural forests owned formally by the state are often *de facto* “open access”, a factor that can lead to poor management.

Common pool resources imply a rivalry in consumption, but it is not feasible or it is difficult to exclude users from accessing them. Non-excludability tends to be an incentive to overuse a resource to improve individual welfare without bearing the costs. Typical examples are irrigation systems, some fish stocks and pastures.

Club goods are resources to which it is possible to exclude access but which can be consumed jointly without reducing the benefit of each single user. Normally, users pay an “entrance fee” which gives them the right to use the resource. Examples include natural reserves or game reserves which can be accessed with a licence, for which payment is normally required. There will often be a limit to the non-rivalry in consumption, and a need to restrict the total number of access licences awarded or sold.

Public goods are goods or services for which exclusive access is not possible and for which there is no rivalry in consumption. The incentives to generate or protect these goods are very low and public provision is needed. Protection from ultra-violet radiations from the ozone layer or carbon sequestration may be considered public goods. These services are not traded through market mechanisms and so do not appear in the conventional GDP measures. Their contribution to economic production is undervalued and so investment in managing them will be sub-optimal.

Many natural resources provide the basis for a multiplicity of “private”, “public” and “club” goods and services simultaneously. Natural forests, for example, provide marketable timber and non-timber products, and non-marketed watershed protection services, which are shared by all communities in a given watershed, as well as biodiversity conservation and carbon capture which are global public goods. The interdependences between these different goods and services have to be taken into account when elaborating governance

regimes aimed at ensuring the sustainability of resource use. In some cases, competition between alternative uses (e.g. pastures versus agriculture) creates difficult trade-offs.

In addition to these characteristics, other features of natural resources have important implications for their effective governance:

Location in remote places. Natural resources are often found in remote areas where the state's ability to monitor and control access and enforce applicable laws and regulations may be limited. This creates important potential for abuses, corruption and conflict between different groups relying on the resources. These include, in particular, conflicts between indigenous populations and external actors.

Location across national and/or administrative boundaries. Many natural resources are located across several jurisdictions or are managed by competing institutions. This makes it even more difficult to define and enforce access and use rights.

Sharp spatial and temporal variations in productivity. Some natural resources are characterised by significant unpredictable fluctuations and variations beyond the control of users or competent authorities. Examples include sharp variations in water flows in rivers and canals and fluctuations in fish stocks. This not only makes management more technically complex but also fuels conflicts between users in times of scarcity.

Time-lag between action and reaction. Usually, the impacts of activities (e.g. resource extraction) influencing an ecosystem will materialise and become visible only with a considerable time delay. Ecosystems do not work in a linear way and can suddenly collapse. Fish stocks provide a vivid example. This renders a sustainable approach to resource extraction politically more difficult since it requires thorough monitoring to make the case to users to contain harvesting rates to prudent levels, in the presence of many uncertainties.

These special characteristics of natural resources (whether they are managed by private entities or by state institutions) create a range of management and institutional challenges. The effective management of “private good” resources depends largely on how well market mechanisms and associated institutions (such as those ensuring, for example, that information about prices is publicly available or that property rights are enforceable) work in practice. The management of common pool resources, public goods resources and club goods resources, for which market mechanisms are highly imperfect or completely absent, depends crucially on the existence and effectiveness of the rules and institutions (whether formal or informal) to govern their use, i.e. on “governance”. Tackling the governance challenges is fundamental to pro-poor natural resource management.

4.1.2. Actors in a political arena: Implications for natural resource governance

Another essential factor for pro-poor natural resource-based growth concerns the characteristics of actors in the political arena related to the management of a resource. Typically, such an arena consists of a variety of actors, notably people who have an immediate interest in using the good. Actors such as public authorities who do not use the good in a direct way, but are involved in their management processes, also form part of the arena.

An analysis of the actors' arena should include i) their interests; ii) the identification of winners and losers of current and alternative policies; iii) their endowment with different types of capital; and iv) the flows of goods and services between actors in the widest sense,

including financial flows. Based on such an analysis, policies have to be designed, implemented and enforced in an effective way.

The interests of actors can hardly be generalised but have to be analysed on a case-by-case basis. Even within a government, no common interests can be assumed across different ministries and agencies, and responsibilities are sometimes difficult to assign. This holds true particularly in the case of natural resources. Typically, different agencies have responsibility for a partial set of issues around a given natural resource. This makes co-ordination a key task for effective environmental management.

The challenge of co-ordination is further compounded by very different histories, traditions, fields of expertise and institutional approaches that different agencies have, i.e. their human and social capital. The establishment of many environment ministries was supported by donors over the last two decades and they are often endowed with less power and political standing than other ministries. Therefore, it is important to be familiar with the unique features of each agency in a given country to understand its approaches and the challenges it faces.

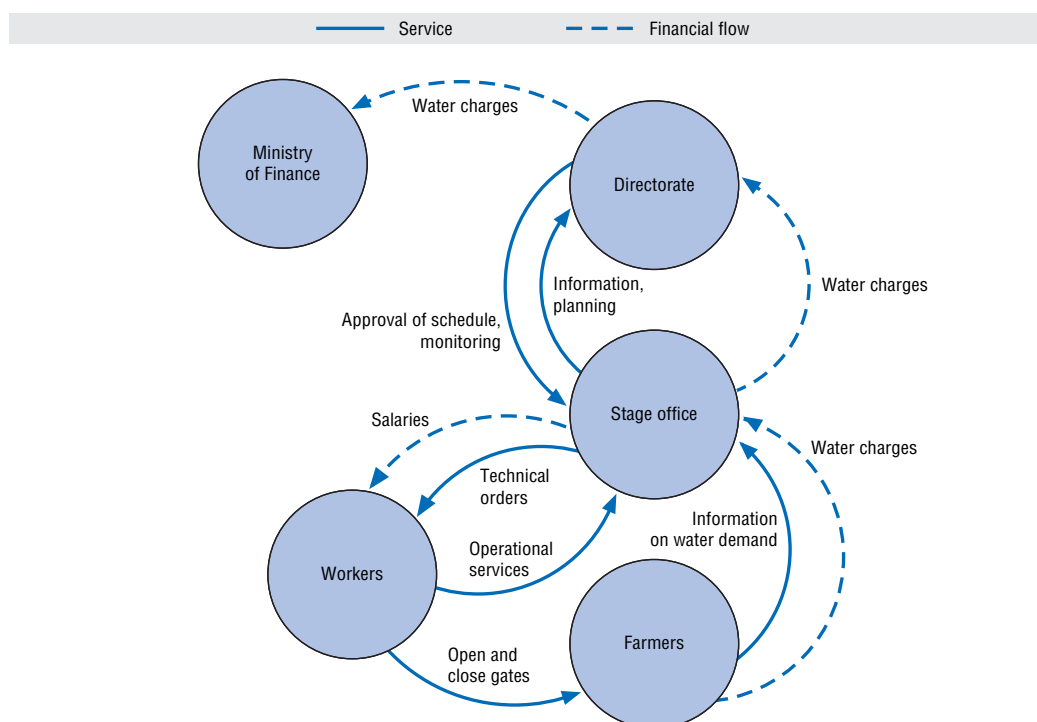
Many ministries and departments of agriculture, forest, water or fisheries also often have to pursue competing goals such as, on the one hand, production and exploitation of a resource and, on the other, its protection for long-term use. Furthermore, priorities have also been changing over time in line with changed circumstances. For example, agencies responsible for fisheries and forestry have had to shift from a situation of abundance, where maximum exploitation of existing stocks for economic gain was the priority, to situations of scarcity where the sustainable management of remaining resources becomes paramount.

Nevertheless, the key political figures in any country, whether the president, prime minister or their cabinet colleagues, can play a vital role in driving change. In Indonesia, the committed minister for forests has sought to take on many of the vested interests in the forest sector. Kader Asmal, the South African Minister for Water and Forestry, was credited with helping to advance many reforms in the water sector. At the sub-national level, an active mayor can fulfil similar functions.

It is important also to include in the analysis actors who might not come to mind directly as relevant, as in the case of the judiciary. Although the judiciary is supposed to be “neutral” by definition, it might be one of the few actors that take concerns of natural resources and the poor into account, as demanded by law. In several countries, judicial activism has been a driving force in pro-poor environmental outcomes, *e.g.* in countries in South Asia and East Africa where the judiciary has traditionally played a strong role in public policy. Judicial activism has its weaknesses in that courts will often be ill-equipped to handle a major role in natural resource management.

An analysis of flows of goods and services between actors in the widest sense and the regulation of these flows can help shed light on additional incentive mechanisms that intentionally or unintentionally govern resource management. These will influence the effectiveness of related pro-poor policies. Such flows include, for example, the transfer of payments, information, labour and political support such as votes in a democratic election.

Figure 4.2 gives an example of a graphic illustration of such flows. In this case, an organisation (the stage office) is obliged to collect fees for water use, but has to deliver them to the directorate which transfers the charges to the ministry of finance, rather than

Figure 4.2. **Relationships between actors: A case study on irrigation**

Source: Fischer et al. (2007).

having rights on these fees. While these rules provide for direct revenues to the central budget, incentives are lacking to meticulously collect the charges.

Such open feedback loops occur where actors lack accountability towards their constituency or towards other actors affected by their use of the resource. Open feedback loops tend to be incentives that stimulate rent-seeking and opportunistic behaviour. For example, a forest administration may award licences from state forests to commercial timber companies without being accountable to the local population. This stimulates overexploitation of forests that undermines local livelihoods, without a democratic option for the local population to intervene. As there is no direct link between the local population on the one side and the forest administration or the timber companies on the other, no incentive exists that stimulates co-operation of these actors with the local population, or respect for their claims. In contrast, incentives to gain personal rents from selling the licences and overexploitation of the forest are considerably stronger (GTZ, 2004).

Policies that promote pro-poor sustainable management of natural resources thus have to take into account the role of actors in the political arena:

- Identify actors whose interests match the requirements for pro-poor natural resource-based sustainable growth. Individual and institutional champions committed to the cause are decisive if progress is to be achieved.
- Different actors hold different types and amounts of capital. These capital endowments determine their options to make decisions, use resources, or seek alternatives and diversify. Policies should equip poor actors with the necessary social, human or man-made capital necessary to manage natural resources in a sustainable manner in a way that leads these actors out of poverty. Access to information, participation and justice

can be improved through a variety of means. This can be done, for example, by extending public participation procedures into the earliest phase of decision making or the establishment of best practices of information disclosure and accountability (WRI, 2002).

- As outlined above, actors are connected through flows of goods and services, rights and responsibilities that regulate their interactions. Open feedback loops constitute incentives for sub-optimal resource management. Policies should thus provide for accountability of decision makers and establish rights and responsibilities that ensure pro-poor management of resources. For example, the creation or strengthening of local elected bodies with a mandate to govern local management of natural resources could help to close feedback loops between actors. Equally, strengthening the capacities of local authorities to conduct public consultations on land use planning and, at the same time, educating citizens on their rights and responsibilities could improve feedback between local populations and government (WRI, 2002).

4.1.3. Institutional framing: Formal and informal rules and their implications for natural resource governance and pro-poor growth

A third important factor for the sustainable, growth-oriented pro-poor management of natural resources is the existence of formal and informal rules, i.e. the institutions related to the management of a resource.

It might not make a difference to people's actual behaviour if rules are formal, that is to say codified, issued by a legislative process or formal decree, or if they are non-formal, that is, unwritten and customary. However, in some cases codified and customary rules might exist on the same issue simultaneously, but are conflicting or contradictory (Box 4.1).

Some rules might be enforced while others are not, regardless of whether they are formal or informal. It is thus important to differentiate between working and non-working rules. The effectiveness of enforcement mechanisms, in turn, depends on the social capital of actors and groups.

A particularly important rule relates to property rights. Property rights are bundles of rights that include one or more of the following:

- the right to control the use of the resource;
- the right to any benefit flows from the resource;
- the right to transfer or sell the property;
- the right to exclude others from the property.

Property rights can be held by individuals, groups (collectives, corporate entities), or the public (an entire community or the state). Reliable enforcement of property rights provides clear incentives for sustainable use of the resource.

However, typically the richer households and firms control access to natural resources through land ownership or logging, fishing and mining concessions. Hence, the assignment and enforcement of property rights has specifically to target and foster the access of poorer actors to natural resources and provide a framework for a reliable property rights regime. Box 4.1 describes a case where the central government ignores the existence of working informal rules on land use. The implementation of formal rules that are not adapted to the local situation is highly unfavourable for the local population including the poor, as external actors reap benefits from their land.

Box 4.1. Clash of formal and informal land use rules

In the uplands of Cambodia, land has been under communal ownership for centuries, quite possibly ever since these upland areas were first settled. Elaborate traditional rules exist for its management and use, accompanied by highly effective enforcement mechanisms, firmly rooted in the strong social capital of these communities. However, the rules are informal and unwritten.

They are thus not recognised by central governments, which often attempt to replace them with formal rules, such as land legislation. These formal rules are typically designed to manage lowland resources, which are traditionally under individual private ownership. Thus, they are not appropriate for the management of upland resources, and ignore or contradict the established systems of informal rules. Numerous conflicts over land resources result.

Among them are a) land appropriation by external actors who purchase land for nominal fees and have it formally registered, b) conflicts over the use of resources with concessionaires who have been granted exploitation rights by government, and c) even expulsion and resettlement of indigenous communities whose claims to ownership of their traditionally inhabited areas are not recognised.

Source: Fischer et al. (2007).

Box 4.2 provides an example of where the use of a common pool resource is subject to decision-making rules that neglect the different capital endowment of actors, in this case the financial capital of the bidders. Actors have thus unequal chances to obtain rights to use the resource, something that could potentially have been avoided if the poorer actors had had more influence when the decision-making rules were established.

Box 4.2. Fisheries livelihoods dominated by the elite in Bangladesh

In Bangladesh, rights to use water bodies, which are the property of the government, are often leased out for one to three years through an auctioning system that generates considerable income for the government. However, ordinary fishermen can rarely afford to bid, and so the license is purchased by rich investors, known as water-lords, who are often past or present members of the local institutions of the state. They hire fishermen as day labourers, while the sales revenue accrues to the leaseholder. These kinds of fisheries regimes have led to the institutionalised exploitation of fishermen through a small group of rural elite.

Source: Bene (2003).

Policies to promote pro-poor sustainable management of natural resources should thus take into account:

- the degree to which the rules favour richer or poorer parts of the population, for example where decision making and constitutional rules intentionally or unintentionally exclude poorer actors;
- the degree to which rules are enforced and whether this enforcement discriminates between poorer and richer actors;

- the property rights assigned, and how these correspond with the characteristics of the resource (i.e. whether it has public, common pool, club or private good character) and with the capital held by the actors and the relationships between them.

4.2. Policies and measures for pro-poor, sustainable resource governance

Pro-poor growth-oriented sustainable natural resource management requires addressing these governance challenges. Therefore policy choices are needed that are political in nature. This is of critical importance for many highly resource-dependent countries.

4.2.1. Types of measures

Four different categories of measures can be distinguished (OECD, 1999):

- market-based measures* that have an impact on people's activities on markets, normally via the price mechanism, including the creation of markets, improved access to markets, or performance bonds that require collaterals from concessionaires to ensure that concession contracts are well managed;
- regulation*, i.e. governmental interventions or command-and-control measures that define the legal framework;
- co-operation*, i.e. measures that motivate people to change their resource use patterns by giving them the opportunity to participate in decision-making and governance processes;
- information*, i.e. measures that help people understand the actual benefits and costs of particular management techniques.

The impact of market-oriented measures is mainly based on their influence on prices. Market-oriented measures often aim to reflect the “true” prices of goods and services on the market in order to address open access to previously non-marketed goods and services. “True” pricing means that all costs and benefits of resource use should be included in price calculations. It aims, for example, to stimulate investment in technology that uses goods and services related to natural resources in an efficient way. Furthermore, the introduction of management contracts or payment schemes can create incentives for the provision of currently non-marketed public goods.

Regulatory measures are a precondition for the existence of well-functioning markets. For example, legal regulations are often essential to carry out privatisation measures. However, these approaches can not only support market-oriented incentives, but also replace them, for example when conservation measures are publicly financed. Enforcement of regulation has to be monitored and should be linked to accountability mechanisms which ensure that citizens, including the poor, can hold private and public actors accountable for their actions.

Co-operation and information measures can help users to manage their private property in a more efficient and sustainable way. Such measures can also support the appropriate pricing of resources, for example through labelling of certified products. Furthermore, the active dissemination of environmentally friendly technology can support better management outcomes.

Among the wide range of measures, some are more suited for private goods, while others are more appropriate for public and common pool resources. Measures should be

chosen that match the incentive structure constituted according to the type of resource. For example, management of common pool resources requires clear and reliable rules for access and use that could be enforced through authorities (regulation) but also through strengthened communities (co-operation). Information measures, in contrast, are well suited to improving the efficient management of private goods in situations where property rights are secure.

All these measures should also aim to increase the resilience of individuals, groups and the entire population in the face of shocks, and mitigate risk and vulnerability to incidents such as sudden changes of market prices, droughts and flooding, or illness (USAID, 2006).

Each measure, whether regulatory, market-based, information- or co-operation-related should be embedded in an appropriate institutional framework that allows the measure to be effective. Institutional modifications should always refer to existing institutions and take them as a starting point. This holds true for both the creation of rules and the development of organisations. Small changes to existing institutions are often much easier to implement and tend to last longer than institutions which are established from scratch.

4.2.2. Distributional implications

The measures outlined in the above section have an impact on the patterns of exploitation of natural resources, with direct consequences for the distribution of benefits of this exploitation and the sustainability of the benefits. Policy choices must thus be aware of these implications.

In India, joint forest management (JFM) guidelines were issued by the ministry of the environment in 1990. These guidelines are based on the idea that forest-fringe communities would have an incentive in protecting forests if they received adequate tangible returns. However, the precise nature of economic gains arising out of such programmes to these communities and the distribution of these gains remains a major research issue (Box 4.3).

As shown in Chapter 3, natural resource management will have to find a balance between economic efficiency, distribution of benefits among the poor and environmental sustainability. Exploitation by large-scale operators – whether foreign or domestic – (what may be termed a “top-down” approach) may focus on maximum economic efficiency, financial returns and export revenues. On the other hand, small or medium-scale operators (termed a “bottom-up” approach) may generate more employment opportunities and more equitable distribution of benefits for the poor. This will, however, depend on circumstances.

In the case of fisheries, for example, large-scale export-oriented operators will use different technologies and equipment, will concentrate on a limited number of target species, and are not very intensive users of labour as compared with their small-scale counterparts. In the case of forestry, large-scale operators, who are often linked to processing facilities such as sawmills, will concentrate on a limited number of timber species and make use of heavy equipment. Small-scale operators, by contrast, will extract a range of timber and non-timber products with little or no machinery.

Top-down exploitation by large-scale operators, such as large-scale mineral or timber extraction, often generates negative side effects in terms of, for example, pollution of waterways or loss of habitats for wildlife. The burden of these impacts does not fall upon

Box 4.3. Participatory forest management in Himachal Pradesh, India: Benefit flows and distribution

Himachal Pradesh is one of the most forested states in India with forest cover of 26% and is located in the northern part of the country in the Himalayas. It has a large rural population (90%) and a high degree of forest dependence. An assessment of benefit flows in selected forest villages shows that benefits from major forest products in terms of imputed forest income for villages which practice participatory forest management (PFM) exceed the benefits of non-PFM villages with similar socio-economic characteristics. The gains, however, are inequitably distributed across socio-economic groups with the better-off cornering most of the benefits.

The effectiveness of a PFM programme hinges crucially on the short-run benefits to forest-fringe communities. Project findings have shown that benefits do start accruing in the short-run where forest dependence is high. While the income enhancement objective of PFM is not in question, its distributive impacts are uncertain. The need therefore is to target interventions more directly at poorer economic groups, and to combine forest-based livelihood options, such as processing non-timber forest products, with non forest interventions such as agriculture development and the creation of social infrastructure.

Source: TERI: Economics of Forest Livelihoods.

the operators themselves but on people living in the vicinity of the operation. Unless these impacts can be minimised or those affected compensated in some way, this can lead to conflicts. This has been a major issue in resource-rich regions such as South East Asia and West Africa. In many cases it has led to violent conflicts between aggrieved local residents and these concessionaires, for example in the Niger delta or at the Bougainville and Ok Tedi mines in Papua New Guinea (Box 4.4).

Box 4.4. Mining

In the rain forests of Western Papua New Guinea, the effluents from the Ok Tedi gold and copper mine have since the mid-1980s led to an ecological disaster with major impacts on the livelihoods of the local populations living downstream. As the indigenous communities living downstream of the mine were not considered to have property rights related to the mine, they had been excluded from the decision making on the approval of the mine in the early 1980s. While the mine's operations and its boost to the national economy are likely to end in 2010, the negative external effects of the mining activities will stay for much longer, with the mine's shareholders assuming responsibility for these impacts only to a very limited degree.

Source: WRI (2002).

The pro-poor benefits of top-down approaches will depend on the extent to which the revenues from the resource extraction can be captured through fiscal means and channelled towards pro-poor expenditures. The pro-poor benefits of bottom-up approaches are more direct. They depend on the poverty status of the populations who live in (or migrate to) the area of resource extraction and who derive the benefits. Choices between these two approaches result from political processes. To ensure pro-poor outcomes, meaningful participation of the poor in these processes is crucial, as they are

often under-represented in decision-making processes and economically powerful interests often prevail.

4.3. Managing the policy process: Political change in support of pro-poor natural resource management

This section draws from recent experience to identify key lessons learned and options to support the political and governance changes needed for pro-poor growth. One of the most important lessons learned is that political change cannot be designed and imposed from the outside. Rather, it is the outcome of continuing social and political discussion.

Political change can follow the stages of a typical policy cycle that include i) problem definition; ii) agenda setting; iii) policy formulation; iv) decision making; v) policy implementation; and vi) policy evaluation. However, usually this is not a sequence of steps that is systematically followed. Problems have often been well known for some time but low on the agenda, before (sudden) events press for political action. Increased public awareness of the damage from poor resource management and waste can help drive change. For example, deforestation is often thought to be linked to flooding and drought and other negative impacts. Severe floods in the Philippines which affected society as a whole seem to have galvanized public attention to unsustainable logging practices and encouraged the government to crack down on well connected logging concerns.

To better understand the dynamics of political change it is useful to differentiate between the levels on which this change can take place. Three levels can be distinguished (Rohe, 1977 and GTZ, 2001):

- i) the *operational* (policy) level, for example, changing the operational content of rules;
- ii) the *process* (politics) level, changing the way decisions are made and institutions are implemented;
- iii) the *organisational* (polity) level, changing political structures, for example restructuring the executive of a country's government.

The measures outlined in Section 4.2, namely market-based, regulatory, information and co-operation measures, can often be facilitated and implemented on more than one of these levels. For example, while donors can provide direct advice to a community on best practices of resource use, they can also enable the local authorities to initiate a process of knowledge sharing through participatory user group meetings and facilitate capacity building of local actors and staff. On the organisational level, donors can try to instigate changes in the way a regional ministry works, for example to combat corruption. However, they can also give advice on the process level to the government to help establish anti-corruptions strategies.

Knowledge about the level at which political change is required and takes place and the stage in the policy cycle helps to identify windows of opportunity for changes that promote pro-poor, sustainable resource use. Pro-poor improvements of resource management can be significantly facilitated by more general pro-poor political change. Many positive examples of pro-poor natural resource management have arisen after a regime change.

For example, in South Africa the election of the ANC led to a massive expansion in access to water and sanitation, increasing not only health and welfare in general, but also creating a large number of temporary jobs (Box 4.5). The window of opportunity during

which the new political power was engaged in active agenda setting was used to implement changes not only at the operational level, but also at the organisational and the process level, in an attempt to embed changes in an appropriate institutional framework. In Latin America, the general return to democracy in the last two decades has facilitated growing control by indigenous groups in forested areas.

Box 4.5. South Africa's water laws and their implementation

South Africa has been a successful pioneer in a rights-based approach to natural resources. In the field of water governance, two new laws were passed. These addressed the lack of water access and inequities in water distribution. For example, in the Mhlathuze basin in KwaZulu-Natal, more than 97% of water resources are allocated to only about 10% of the population. The Water Services Act provides more equitable access to safe drinking water and sanitation with water access to within 200 metres of the household. Since 1994, the department for water affairs and forestry has been able to provide basic water supply to 9 million people. In 2002 alone, 1.2 million people were recipients of water supply infrastructure, while 50 000 were given access to household sanitation. In the process, 25 000 person-years of temporary employment were created. Over 57% of the population now has access to water. The National Water Act will establish catchment management agencies (CMA) in each of South Africa's 19 water management areas, and these will have functions devolved from the centre. Five CMAs have been announced in an official paper or will soon be.

Source: Schreiner and Van Koppen (2002).

The poor are not passive in the face of political pressure, although they often face major hurdles and opposition. Much can be learned from processes where they themselves have initiated political change to demand a share of benefits from natural resources. There are some striking examples of how poor groups, with strong leadership and sophisticated use of the media, have organised themselves to demand access to natural resources, especially land. This is widespread in Latin America, illustrated by the rise of extractivist reserves for rubber tappers in Brazil.² Other examples are that of the Chiquitanos Indians of Bolivia, who in 1992 formed an organisation to protect their land from timber companies (McDaniel, 2003).

One of the challenges of these pro-poor movements is to up-scale, move from the local to the national level, and to attain broader changes on the operational, organisational and process levels. A successful example of this is the rise of poor fishing groups in Kerala and their battle with trawlers to control resource access.

Experience also suggests that driving political change requires making innovative alliances with both national and international civil society organisations (including religious groups, professional groups and trade unions). NGOs, which are often perceived as independent lobby groups, may also have many strengths in lobbying governments and supporting poor groups. Some NGOs, however, may have relatively shallow roots in their own society, and do not necessarily represent the poor.

International organisations, by bringing pressure to bear on resistant governments, can also help legitimise the claims of the poor. Private sector enterprises in turn, both foreign and national, have a major role to play in natural resource use. Governments may

lack the negotiating skills to design effective natural resource contracts. However, international firms are often sensitive to pressure from their shareholders and consumers not to increase poverty through their activities.

Although the awareness that development co-operation necessarily has to address governance issues as much as technical problems has developed only recently, donors have always played a role as drivers of change. Donors can influence such change on all three levels. On the operational (policy) level, change can be supported, for example, through technical or financial assistance, or through technical advisory services to resource users and organisations and through international exchange. On the organisational level, donors can provide organisations with advisory services on regulatory policy or on management and organisational issues. They can also foster networking between actors and thus change structures. On the process (politics) level they can provide advisory services with regard to policy processes.

Several donor agencies have developed analytical approaches such as the one used in this chapter (FAO, 1997; GTZ, 2004) that support the creation of a sound knowledge basis as the starting point of poverty reduction, involving environmentally and economically sustainable governance change. The UK's Department for International Development (DFID) uses country governance analyses (DFID, 2007) that focus on a state's political and economic capability, a government's accountability and its responsiveness. DFID's "drivers of change" approach takes a more general approach and helps to analyse the role of actors (agents), institutions and structural features in political change (DFID, 2005).

These approaches can be used to identify effective ways to promote sustainable pro-poor growth. With regard to the dynamics of such political change outlined above, it is particularly important to take the following aspects into account:

- Changes that enhance pro-poor growth through the sustainable use of natural resources are facilitated during periods that offer "windows of opportunity", for example, taking advantage of phases of problem identification, agenda-setting or policy formulation.
- Measures should target the appropriate governance levels (operational, organisational or process) in order to become effective in the institutional framework. While measures are often easiest to implement on an operational level, these might be least effective, as their functionality is dependent on favourable conditions at the process and organisational levels, for example by supportive conditions in the ministries. Often these governance levels are complimentary and re-enforcing and targeting multiple levels simultaneously or in succession may be most effective in protecting natural resources and ensuring pro-poor growth.
- Actors may take different roles in driving the change. Consequently, the role of donors in these processes varies, depending on the nature of the window of opportunity. In situations where poor actors have taken the initiative to stimulate new processes of agenda-setting, donors can actively support these actors on the operational, process and organisational levels.

4.4. Conclusions

This chapter summarised essential elements of governance that shape the management of natural resources. To establish governance mechanisms that foster sustainable pro-poor growth, a profound understanding of existing mechanisms and of the measures that could change the prevailing governance is essential.

Such elements of governance include:

- The characteristics of natural resources: Do they have a public, private, club or common pool resource character? Are the rules for their use enforced, or does an open-access situation prevail?
- The capital endowments and the flows of goods and services between actors: Do existing governance mechanisms favour or disfavour poor people in the use of natural resources?
- The existing formal and informal rules: Do rules exist, are they enforced, and who benefits from them (*e.g.* who benefits from the prevailing property rights regimes or from rules on public decision making)? What has worked in the past that can be built upon?
- The market-based, regulatory, information and co-operation measures that could change the existing governance mechanisms: what are their effects on the distribution of benefits? Do they set the right incentives for a sustainable use of the resources?
- The processes of change: how can change be supported and embedded so that outcomes are sustainable? How can co-operation between stakeholders be encouraged and participation of the poor be facilitated? How can flexibility in the choice of policy instruments be ensured?

Notes

1. Nobel Lecture, Oslo, 10 December 2004.
2. There is still controversy as to how much this has benefited rubber tappers.

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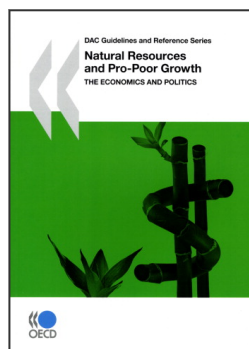
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