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LiveDiverse

Sustainable Livelihoods and Biodiversity in Developing Countries

Initial Institutional Analysis

Milestone 9.1 Report

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INITIAL INSTITUTIONAL ANALYSIS REPORT (M9.1)

WP9: INSTITUTIONS, VALUE-BASED STRATEGIES, AND POLICY INSTRUMENTS

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1. INTRODUCTION

A core objective of LiveDiverse is to develop integrated and participatory scenarios that offer stakeholders recommendations as to how the development and implementation of laws and policies might be strengthened. Ultimately, such recommendations seek to promote governance arrangements that are effective in both accounting for, and reconciling, potentially competing economic, social and environmental interests in the conservation of biodiversity.

In order to achieve the latter objective, it is first important to gain an understanding of the governance arrangements for promoting sustainable livelihoods and biodiversity conservation that currently operate within the four case study areas of LiveDiverse. The objective of this report is therefore to do just that; namely, to understand what existing *laws* and *policies* apply to the Ba Be and Na Hang Nature Complex in Vietnam, the Greater Kruger Area in South Africa, the Terraba River Basin in Costa Rica, and the Warna River in India; and to ascertain what *institutions* and *actors* are either responsible for the adoption or implementation of such instruments, or are potentially affected by them.

The report is broken down into several chapters. The following chapter sets out the multi-disciplinary conceptual and methodological approach that has been adopted for WP9. In so doing, the chapter clarifies how certain terms will be defined; and justifies why it is important to consider them throughout the work. Given their central position within the work. The report then draws upon the disciplines of law, political science and others to explain the methodologies that have been used during the production of the report.

The third chapter is then dedicated to an examination of the applicable laws, policies and institutions that operate at the international and regional levels, ie., between States. The analysis will therefore look at both global laws, policies and institutions applicable to the case study areas, such as the 1992 Biodiversity Convention or the UN Environmental Programme; as well as regional instruments and institutions, such as the 2000 Revised SADC Protocol on Shared Watercourse Systems or the Asian Development Bank.

The fourth chapter focuses on the applicable national laws, policies, institutions and actors that relate to the case study areas. The laws and institutions may be both formal and informal. For example, there may be formal laws operating in the case study areas relating to land rights or natural resource management, as well as customary laws that have evolved at the community level. An important aspect of the assessment will therefore be to account for the multi-level aspects of governance that operate within the four case study areas ranging from the community, to the provincial and national levels. Chapter four will also pay particular attention to the formal institutions and actors that interact with the formal and informal governance structures, in order to determine who the most important actors are, and also the likely conflicts of interests between these various groups.

More detailed analysis of issues around implementation, compliance and the effectiveness of existing governance systems will be undertaken in the second phase of the activities under WP9. The ultimate chapter of this report will therefore outline the further research that will be carried out as part of LiveDiverse in order to examine the effectiveness of the existing governance systems.

2. CONCEPTUAL AND METHODOLOGICAL APPROACH

2.1 CONCEPTUAL APPROACH: GOVERNANCE, BIODIVERSITY, SUSTAINABLE LIVELIHOODS AND VULNERABILITY

2.1.1 Governance: a study of laws, policies, institutions

2.1.1.1 What is "Governance"?

The term "governance" has recently been used in relation to the improper functioning of government or the need for more effective administration, mainly by international finance and development institutions. The definition of the term in its broader sense, however, is notoriously problematic (Jordan et al, 2005), differing, for example, between disciplines (van Kersbergen & van Waarden, 2004) and geographical context (Knill & Lenschow, 2003). In political science literature, a move is perceived from *government* to *governance* (Jordan, Wurzel, & Zito, 2005). In this context, government is associated with the use of command-and-control instruments as policy implementation tools (Pierre, 2000), with governance being more closely related to instruments requiring greater participatory input from the governed.

In institutional literature, this transition from government to governance is perhaps less explicit. The World Bank Institute (WBI) for example, defines "governance" as being, *"the traditions and institutions by which authority in a country is exercised for the common good"* (World Bank Institute). The WBI goes on to highlight three key elements: (i) the process by which those in authority are selected, monitored and replaced; (ii) the capacity of the government to effectively manage its resources and implement sound policies; and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them (World Bank Institute).

While the WBI focuses more on the actions of government, the United Nations Development Programme (UNDP) has defined "governance" more broadly as," …the system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sectors" (UNDP, 2004).

What is fundamental in all definitions of governance is the central role that law, policies and institutions play in managing societies affairs. While these three factors are often considered synonymously, there is great benefit in dissecting the role and function of each, in order to better understand how they interact with each other. Ultimately, examining the interaction of such instruments should provide the opportunity to ascertain where individual, or a mix of instruments, might be strengthened.

2.1.1.2 The interaction between law, policy and institutions

The study of policy and institutions is central to the understanding of governance, which of course also holds true for environmental governance, biodiversity and livelihoods. We need however to directly define how the term

"institutions" will be used here; Young (Young 1999) states that "a prevalent distinction of institutions is between rules of the game, or settled practices, and the formal organizations who are the players and who have formal hierarchies of decision-making".

In this section we are talking about institutions as 'formal organizations'. Institutions can also be seen as governance systems (in contrast to organizations) (Young 1992) and as resource regimes, which are a "conception of institutions centering on roles and rules articulated explicitly in the provisions of treaties, conventions or other (not necessarily legally binding) international agreements" (Young 1994). However, it is our intention to focus on the interaction between core elements of a governance system; we therefore make a distinction between governance systems, laws, policies and institutions (formal organizations).

While law, policy and institutions are different in nature: law and policy is a planned line of action and therefore non-material, while institutions, at least in the way we use the term in this report (formal organizations) are material in that they consist of groups of people organized in specific ways, they will be discussed in this section as two parts of the same process. The motivation for this is that law and policy is formulated and implemented to a large extent by institutions, and therefore the characteristics of these institutions influence the formulation and execution of laws and policies, while law and policies themselves influence the characteristics, and often the existence, of institutions.

Consider the development of, for example, water quality as a policy field. During the 19th century and before (if it was at all considered then), water quality was the domain of health authorities, and the institutions that managed water quality were part of the public health sphere. During the 20th century, however, water quality came to be seen as an environmental issue, and new institutions developed to manage water in a different way. To a large extent this 'new' way of looking at water quality was the result of the growth of new groups of actors from outside existing institutions, who through the reformulation of water as an environmental instead of health issue were able to encourage the creation of new institutions that many of them then colonized. Departments of health became departments of the environment, and institutional change the result of changing perceptions of a common issue. However, institutions should not be seen as passive embodiments of changing policies, as institutions also strongly influence the formulation of policy and demonstrate a strong sense of self preservation. Institutions seldom willingly contribute to their own demise, and often show considerable creativity in their ability to reformulate issues to fit their own ambitions.

A further important distinction to make is the one between law and policy. Allott (1998), notes that law, both formal and informal,

> "enacts in a particular form the common interest of society as a whole. It then disaggregates that common interest by relating it to the actual detailed behaviour of particular society members. And the result is that, in taking their individual self-interested decisions, individual society members, if they act in conformity with the law, also and inevitably serve the common interest of society…. So, in conforming to

> the law, we are society's agents in making a future for society which is within the range of possibilities which society has chosen…."

Allot's description of law shows that it shares much with policy as a tool for articulating and shaping common interests. However, there remains a clear distinction between law and policy. A policy outlines particular aspirations and goals, as well as the possible methods and principles by which to achieve them. As such, policies may be based on the implementation of a law, but does not necessarily need to do so. Law provides a tool, amongst other economic and social instruments, that can implement such policies; in addition, law provides the framework in which such policies are adopted and implemented. This holds true even if the policy does not originate in law, as all public policy must be implemented within the framework of a country's constitutions (if one exists), and legal system. Laws set out substantive and procedural standards of care, fairness and justice to regulate society, a failure of which leads to a legal consequence, ie., court decision.

The rule of law has therefore been identified as central to sustainable development, Toepfer (2005), notes that,

> "We all have a duty to do whatever we can to restore respect for the rule of law, which is the foundation for a fair and sustainable society…. Sustainable development cannot be achieved unless laws governing society, the economy, and our relationship with the Earth connect with our deepest values and are put into practice international and domestically. Law must be enforced and complied with by all of society, and all of society must share this obligation."

Numerous international policy documents also stress the need to strengthen the *rule of law* as a key driver for sustainable development (UN Res 55/2, 2000; Johannesburg Plan of Implementation, 2002). Lon Fuller identifies eight essential elements of the rule of law, namely, that law be, general in its application; public; operate prospectively; have reasonable clarity; internally consistent; practicable to comply with; relatively stable; and that there is a congruency between the world of law and its enforcement (Fuller, 1969). A key aspect that is picked up by Toepfer and Fuller is the importance of enforcement and compliance in supporting the rule of law. Zaelke, et al., (2005) simply state, "without compliance, the rule of law has no meaning". Here it is important to recognize that institutions play a central role in the adoption and implementation of laws; the way in which laws and institutions interact, at various levels, is therefore crucial to a better understanding of compliance and enforcement.

Just as the law, policy and institutions concerned with water, biodiversity and livelihoods are interdependent and interdisciplinary, so the study of them falls between traditional academic disciplines. The case for interdisciplinarity has been presented in a number of other publications (Gooch and Stålnacke 2006) and will not be repeated here, but even from a political science disciplinary perspective these institutions and policy need to be studied from the combined perspectives of public administration, comparative government and international relations. Through studies of the structure and nature of governmental institutions we can learn more about the workings within and between these institutions. A comparative perspective can provide us with a

better understanding of the differences and similarities between these institutions in different settings, as well as the ways in which policy is determined, formulated and administered according to the traditions of different countries. From the perspective of international relations we can understand more about how countries interact in the formulation of international policy, and how this interaction can be structured in international regimes. As Dyer notes, "international theory must become the theory of global processes, incorporating multiple actors and considering global, regional and local relations as aspects of the whole" (Dyer 1996) p.30.

2.1.1.3 Levels of enquiry

The interaction of law, policy and institutions at different spatial scales was noted in the section above and the study of these necessitates a methodology that is able to take into account this interdependence. Anthony Giddens states that "globalisation refers essentially to the stretching process, in so far as the modes of connection between different social contexts or regions become networked across the earth's surface as a whole" (Giddens 1990) p.64, and it is these modes of connection that we must analyze in order to understand the policies and institutions of biodiversity and livelihoods. This interconnection is also a form of embedding, as

> *'...many phenomena associated with global change are linked together in constitutive hierarchies. Individual humans are contained in families that are contained in neighborhoods, which are contained in villages or cities, which are contained in regions, which are contained in nations, which are contained in international regions, which are contained in nations, which are contained in international organizations'* (Gibson, Ostrom et al. 2000).

While it can be useful to envisage laws, policy and institutions as existing at different spatial levels, the international, national, regional and local, we also need to remember that these are today interconnected and that a distinction of spatial levels should be seen as a starting point. In the final section of this report we will describe the ways in which our studies of law, policy, actors and institutions will take as a point of departure these spatial levels but then continue with analyses of the 'modes of connection' and networks noted above. We will also analyze the inter-organizational and institutional structures through which policy is implemented, an issue which, despite a long history of recommendations to look at this important aspect (Hanf and O'Toole 1992), still needs more attention.

2.1.1.4 Networks – where law, policy and institutions come together

In the preceding parts of this section we have claimed that law, policy and institutions, as well as the different spatial levels of these, are interconnected. What then is the nature of these connections? A defining aspect of the concept of governance is that relations take the form of networks (Rhodes 1996) and the methodological approach that we take here is the policy network approach, which explains the influence of actors in a social/political system as a result of the positions that they occupy within these networks (Knoke 1990).

Network theory is compatible with governance as a concept and the ways in which the formulation and implementation of public policy is seen as a process of interaction between public and private actors that can be analyzed through the relations and contacts that play a part in the policy process (Parsons 1995) p. 185. Network as an analytic concept started as a metaphor for describing different types of relations in the policy process and needs to be used together with other theories, for instance theories of power or institutional organization in order to develop the utility of the concept (Dowding 1995). Networks can be classified from members/membership, integration, power and resources. Rhodes means that networks can vary along a continuum according the closeness of the relationship within them (Rhodes 1997) p. 43, and he distinguishes between five different types of policy networks. The network with the closest relationships is the policy community. Policy communities are characterized by stability of relationship, continuity of high restrictive membership, vertical interdependence based on shared service delivery responsibilities, and insulation from other networks and invariably from the general public. Membership is very limited and some groups are excluded, economic and/or professional interests dominate. Values and outcomes are persistent over time; all participants share basic values and accept the legitimacy of the outcomes. All participants have resources, the relationship is an exchange relationship, there is a balance of power between members but some group may dominate. In the other end of the continuum, with most open relations, lies the issue network. The issue network is characterized by a large number of participants and their limited degree of interdependence. Contacts between members of an issue network can fluctuate in frequency and intensity. The members agree upon the goals of the network, but not necessarily about basic values, conflicts between members are common. Resources and power are unequally distributed, and the basic relationship is consultative. The policy community is a positive sum game but the issue network can be a zero sum game (Rhodes and Marsh 1992) p. 182. The remaining three forms of networks, professional, intergovernmental and producer networks are placed in between policy communities and issue networks. The different constellations are not mutually exclusive but can co-exist in the same policy area.

Networks are seen as channels of communication which facilitate information exchange, negotiation, coordination and access to decision-makers (van Waarden 1992). One form of network that we will study in the project is the issue network (Heclo 1978), as the protection of biodiversity in national parks and reserves can be seen as a specific 'issue' that engages a wide variety of actors and interests, just as the protection and improvement of livelihoods can be seen as another 'issue' which engages another group of actors and interests. It is in the interaction of these two issue networks that the focus of our project lies. At the centre of this analysis is power, the ability to influence others to act in a specific manner. While it may at first sight seem easy to identify where power lies, political or economic, in many policy fields such as biodiversity and livelihoods, it is difficult to initially identify the dominant actors, as if we look only at the obvious candidates we may miss the webs of influence that guide and provoke the exercise of power (Heclo 1978) p.102. The identification of these webs of influence is one of the empirical tasks that face us in the project. This approach

does not however mean that we see the policy process as completely random; it is not (Richardson 1996). As we will see below, actors can be organized in coalitions that can act together towards common goals.

A more specific form of network analyses that will be utilized as a theoretical framework is the Advocacy Coalition Framework (Sabatier 1988) which postulates that policy networks are usually made up of two or more coalitions of actors, each with their own belief systems and views of the world and how problems should be solved. This approach enables us to examine, not only the arguments and conflicts surrounding biodiversity and livelihoods, but also the contents of these arguments, of the beliefs of the members of the coalitions. Views of how best to protect biodiversity, for example, can involve on the one hand a desire to exclude humans from protected areas, as they are seem as outside of nature, as apart, or a belief that humans need to be given access to these protected areas, albeit with organized forms. The approach also helps us to analyze the formulation/implementation/reformulation cycle. This approach does not mean, however, that we will only study the beliefs of the actors; the structural forms that actors interact in are also significant. We need also to analyze the relations between actors and the institutional contexts within which these relations take form.

Another way of studying issue networks that could provide us with useful insights, especially at the international level, is that of epistemic communities (Haas 1992). This is seen as a network of professionals with recognized expertise and authority in a particular domain, with shared normative and causal beliefs, shared criteria for validating knowledge in their area and a common policy enterprise (Haas 1992) p.3. Epistemic communities are also seen as a means of learning, of who learns what, when and how (Adler and Haas 1992). By combining the concept of epistemic communities and learning with the study of the processes of how international agreements are formulated and implemented we hope to be able to uncover some of the factors working against successful implementation.

2.1.1.5 Methods of analyses

In order to analyze the policies and institutions involved in biodiversity and livelihoods in the four case basins, a case study methodology will be used (Yin 1994) which involves the utilization of a number of different sources of information, and the use of a number of different methods. Official and other documents will be analyzed in order to identify actors and important concepts, and semi-structured interviews with the main actors will also be conducted, as qualitative interviews are useful to gain a depth of understanding and to explore ‘the broader implications of a problem and place it in its historical, political, or social context" (Rubin and Rubin. 1995) p.52.

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2.1.2 Other definitions

2.1.2.1 Biodiversity Conservation

The interplay between vulnerability, livelihood and biodiversity is the major cornerstone of the LiveDiverse project. Contrary to the other core concepts of the project "vulnerability" and "sustainable livelihoods", the concept of "biological diversity" is the only one benefiting from a common understanding and international legal acknowledgment.

This brief overview of the concept of "biological diversity" (also coined as biodiversity) aims to provide not only a general definition of the concept but also a common understanding of this concept within the LiveDiverse project. As one of the main tenets of the project and as a commonly widespread concept for the last twenty years, biological diversity is not a contentious concept *per se*. But it does not mean it is not a contentious issue with respect to its interplay with livelihoods and the implementation of its main related agreement, the Convention on Biological Diversity.

General overview of the concept

The very definition of biological diversity does not pose significant difficulties even if as a scientific concept, consensus might be difficult to reach. As a

scientific concept, it epitomizes the "variety of life" on earth (Gaston, 2004). The concept has been internationally acknowledged under the Convention on Biological Diversity of 1992 (CBD). As a result, the definition of article 2 of the CBD could be regarded as the authoritative, namely "[b]iological diversity means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems." Thus, biological diversity encompasses three levels of diversity: ecosystem, species and genetic diversity (Glowka, et al, 1996).

Nevertheless, biological diversity should not be mixed with genetic resources, genetic materials, or biological resources, others terms mentioned by the CBD, but which are its "tangible manifestation" (Glowka, et al., 1998). Thus, biodiversity along with the CBD embody a more holistic approach than previous specie or ecosystem focused nature conservation agreements (such as the Convention on Wetlands of International Importance (Ramsar), and Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)).

Hailed as a watershed for biodiversity conservation, the CBD pursues three major objectives with regard to biological diversity: its conservation (*in-situ* and *ex-situ*), the sustainable use of its components and the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

Conservation of biodiversity relates not only to its *in-situ* conservation thanks to the creation of protected areas, but also to its *ex-situ* conservation through collections of genetic resources in banks. The sustainable use of biodiversity requires using the components of biodiversity "in a way and at a rate that does not lead to [its] long-term decline, thereby maintaining its potential to meet the needs and aspirations of present and future generation" (art.2 CBD).

Benefit-sharing pertains not only to the sharing of the benefits stemming from access to genetic resources between States Parties, but also to the sharing of the benefits arising from the use of the knowledge of local communities.

The preamble of the CBD reasserts the sovereign right of States to exploit their genetic resources, setting aside the issue of common heritage of mankind but acknowledging that conservation of biological diversity is a common concern of humankind. Therefore the legal status of genetic resources is to be decided upon by each State, but the conservation of global biodiversity requires the cooperation of all States.

Biodiversity and LiveDiverse

The four countries within the LiveDiverse project have enacted specific laws on biodiversity, dating back to 1998 for Costa Rica, to 2008 for in Vietnam (which entered into force at the beginning of July 2009). South Africa, India and Costa Rica, (see text box right) use almost the same definition as provided by the CBD. The Vietnamese law provides for a different and more restrictive definition, regarding biological diversity as "the abundance of genes, organisms and ecosystems in the nature" but doesn't underline the interaction between these elements. Regarding Costa Rica, the definition of biodiversity also includes intangible elements such as knowledge, innovations and traditional practices (art.7.2).

South Africa: *National Environmental Management: Biodiversity Act, 2004*. (No. 10 of 2004). Chapter 1.1 gives the following definition: ""biological diversity" or "*biodiversity" means the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystem*".
India: Biological Diversity Act, 2002 (ActNo.18 of 2003), Chapter 1.2.b) gives the following definition: "*biological diversity" means the variability among living organisms from all sources and the ecological complexes of which they are part, and includes diversity within species or between species and of eco-systems*".
Costa Rica: Ley de Biodiversidad No. 7788, (23/04/98): Article 7.2 gives the following definition: "*Biodiversidad: variabilidad de organismos vivos de cualquier fuente, ya sea que encuentren en ecosistemas terrestres, aéreos, marinos, acuáticos o en otros complejos ecológicos. Comprendre la diversidad dentro de cada especie, así como entre las species y los ecosistemas de los que forma parte. Para los efectos de esta ley, se entenderán como comprendidos en el término biodiversidad, los elementos intangibles, como son: el conocimiento, la innovación y la práctica tradicional, individual o colectiva, con valor real o potencial asociado a recursos bioquímicos y genéticos, protegidos o no por los sistemas de propriedad intellectual o sistemas sui generis de registro*."

In the context of the project, biodiversity should be regarded in the most extensive way, especially focusing on services provided by the ecosystems. Moreover, the concept should not only embrace wild but also cultivated (agricultural) biodiversity. Local people mostly in rural areas of developing countries are dependant upon biodiversity to make a living and to secure their livelihoods. These interactions are scarcely taken into account by the law, or are at least mentioned. Thus, the Vietnamese law links biodiversity conservation and use, to hunger eradication and poverty alleviation (art.4.2). The law from Costa Rica emphasises the importance of biodiversity to ensure food security, conservation of ecosystems, the protection of human health and the improvement of human well-being (art.11.3).

The number of people living within the protected areas differs from one site to another. For example, in the Vietnamese area, people are allowed to live within the boundaries of the national park whereas in South Africa, the Kruger Park is people free. Therefore, the impacts of local communities on biodiversity located within and in the so-called buffer zones of protected areas will be different, depending of the communities' capacity and legal rights to use the resources within or outside the areas.

Diversity is a key to deal with vulnerability. Diversity equates with choices, and the lack of choices thus of diversity, increases the level of vulnerability not only of the natural environment, but also of communities depending on this diversity. Diversity of genetic resources helps strengthen their adaptation and resilience to changes of environmental conditions (such as climate change).

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2.1.2.2 Sustainable Livelihoods

There is a great deal of work that has been done on the importance of livelihoods, and the application of the livelihood approach to natural resource strategies. In very basic terms, "livelihood" is understood as a: *"means of securing a living" (*Chambers and Conway, 1991). Recent work is virtually united, however, in making use of a more elaborate definition of "livelihoods", along with the concept of "sustainable livelihoods". The preeminent definition comes from Chambers and Conway *(ibid),* they write, "a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living." This definition is much broader than the no-frills definition because it includes those elements that are required for a livelihood to be made. This definition has then been developed still further so that assets are categorized by Ellis, (2000), into forms of capital*,* "a livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household*)*."

Ellis notes that while a person's "livelihood" is not the same as income generation, the two are inextricably linked (*ibid*.). Allison and Ellis (2001) also state that this definition combines the factors that affect the vulnerability of livelihood strategies. This implicitly includes an element of sustainability. The idea of sustainable livelihoods appears as part of Chambers and Conway's (1991) original definition of "livelihoods", the first part of which appears above:

> "...a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term".

This is in effect an enunciation of resilience, a view echoed by Allison and Ellis (2001). Sustainability in this context then appears to refer more to the capacity

of people to implement successful livelihood strategies over time (Ellis, F., 2000) rather than the broader interpretation of the word that demands a balancing of economic, social and environmental considerations. The inclusion of more environmental concerns has been developed – for example, Rakodi has defined "sustainable livelihoods" as being able to *"*cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future while not undermining the natural resource base" (Rakodi, 2002), although the natural resource base and the broader environment are clearly not synonymous*.*

According to Hussein (2004), UN Development Programme (UNDP) takes a slightly different view of "livelihoods". The UNDP, "understands 'livelihoods' to denote the means, activities, entitlements and assets by which people make a living. Assets are categorized as: natural and biological; social; political; human; physical; and economic." (Hussein, 2004). In the UNDP's view, "the sustainability of livelihoods is a function of how men and women utilize asset portfolios in the short- and long-term. Sustainable livelihoods are:

- able to cope with and recover from shocks and stresses;
- economically effective;
- ecologically sound; and
- socially equitable." (*ibid.*)

Finally, there is no explicit right to livelihood in the Human Rights Covenants (and therefore no definition of "livelihoods"), although Art. 6 of the Covenant on Economic, Social and Cultural Rights "recognize[s] the right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right."

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2.1.2.3 Vulnerability[1]

Vulnerability is a concept that denotes a state of susceptibility to harm. Persons, communities, countries, technologies, infrastructures, but also ecosystems – all for simplicity's sake from here on referred to as systems - are said to be vulnerable when their current condition is potentially disturbed by internal and external threats. The greater the likelihood of a disturbance that will upset the current condition a system is in, the greater the vulnerability to that particular disturbance of the system in question.

Systems differ in their capacity to maintain their current state under disturbance (Lebel et al., 2006; Walker and Salt, 2007). Systems manage and absorb disturbance in different ways, with some systems essentially breaking down because of the disturbance, others maintaining their state and functions, and yet again others transforming into a different state. The terms resilience, robustness and vulnerability are all useful here (see e.g. Folke et al., 2004; Lebel et al., 2006). Robustness refers to the 'structural and other properties of a system that allow it to withstand the influence of disturbances without changing structure or dynamics' (Young et al., 2006: 305). Resilience refers to 'the capacity of a system to absorb and utilize or even benefit from perturbations and changes that attain it, and so to persist without a qualitative change in the system's structure' (*ibid.)* Robustness and resilience differ from each other 'in the extent to which (non-structural) changes in dynamics may be introduced into a system under the impact of perturbations. Resilience allows for temporary changes in functioning and dynamics, as long as the system remains within the same stability domain' (*ibid.,* 305-306). Finally, vulnerability refers to 'situations in which neither robustness nor resilience enables a system to survive without structural changes. In such cases, either the system does adapt structurally or it is driven to extinction' (*ibid,* 306).

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[1] The text from this section is based on Bouma, J. & Huitema, D., "Socio-Economic Vulnerability: Conservation-Development Trade-offs and Agency in Multi-Level Governance Processes", LiveDiverse Work Package 6 Conceptual Note, January 2009.

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2.2 Report methodology

As noted previously, the primary objective of this report is to gain a good understanding of the existing governance arrangements for promoting sustainable livelihoods and biodiversity conservation within the four case study areas. In order to assess the governance structures within each of the case study areas it is necessary to understand:

i) What laws relating to the interface between sustainable livelihoods and biodiversity conservation are currently in force within each of the case study areas?
ii) What policies relating to the interface between sustainable livelihoods and biodiversity conservation apply to each of the case study areas?
iii) What institutional structures currently exist within each of the case study areas that relate to the interface between sustainable livelihoods and biodiversity conservation?
iv) Who are the actors involved in governance, and what are the relationships, interaction, and power dynamics that might influence the implementation of effective governance arrangements?

These four key questions demand the application of various methodologies. The methodologies used for each question are therefore described below.

2.2.1 Methodology for identifying the applicable laws

The identification of applicable laws is the first step of any legal analysis process (of any process to assess the implementation and effectiveness of the law). Applicable laws need to be defined as broadly as possible. Obviously, they include “positive law” which can be defined as the legal rules in force at a given time and in a given place, they include the international and regional agreements, Constitutions, laws, decrees, regulations, from the international level to the local one. Applicable law should also include non written legal rules such as customary laws even if the State is not at the origin of its establishment. But as not written it is more difficult to have access to them from a remote basis.
Applicable laws should not be restricted to the national level. States are international actors and create international and regional agreements, and they commit themselves to implement their obligations.

In order to identify applicable laws, a national, regional and international legal mapping has been carried out. It consists of identifying the texts and legal documents relevant to the LiveDiverse issues. In order to encompass the biodiversity-livelihoods nexus, the research focused on many themes such as biodiversity, environment, water, forests, land, agriculture, human rights, governance, minorities and indigenous people’s rights.

Taken also into account the different administrative systems (federal and non federal countries) and the share of competencies resulting from them, the research is not be restricted to national laws, but include also laws and norms adopted on the State level (for India and South Africa) where the case study areas are located. Thus a clear identification of competencies also needs to be done in order to avoid gaps.

The legal mapping helps pinpoint not only written laws but also legal vacuums such as for example the lack of law on public participation.

The legal mapping was facilitated by the browse of national legal databases which gather in a systematic way the legal documents of each country, including the India Code – Legislative Department (http://www.indiacode.nic.in/welcome.htm; the Ministry of Justice Portal, Vietnam (http://www.moj.gov.vn), and South African Government Information website (http://www.info.gov.za). More detailed research was carried out on the websites of the different ministries and on the websites of provinces and local administrations. Research of literature (books, articles, reports) complements the legal mapping.

The legal mapping is nevertheless restricted to the law which should be applied but applicable law does not stand for applied laws. First of all, one of the prerequisite to law enforcement is the publication of legal documents (except for some legal norms (e.g. circulars are not published) in the official journals (e.g. Official Gazette for Vietnam). Secondly, some laws require subsequent regulations to flesh out their provisions and allow their implementation. Laws requiring decrees of implementation would go unheard if no decree is adopted. Finally, despite the fulfillment of these legal requirements, the applicable law can remain unapplied because of its inconsistency, irrelevance, or many others reasons. Identifying these reasons will be the next step of the legal research, to wit the analysis and assessment of the implementation and effectiveness of these applicable laws.

2.2.2 Methodology for identifying the applicable institutions, actors and their policies

The identification of the relevant institutions and actors draws heavily upon the work that has been carried out within Work Packages 3 & 9.1-9.2. Firstly, a preliminary stakeholder mapping and analysis exercise was conducted within each of the case study areas. This preliminary exercise sought to identify individuals and organizations that could be considered as *stakeholders*. These stakeholders were defined as, "any person, group or organization with an interest or "stake" in an issue, either because they will be directly affected or because they may have some influence on its outcome" (EC, 2003, p.11). Drawing upon various methods of stakeholder mapping and analysis exercises (Rieu-Clarke, et al., 2010; MSP, 2009), information was gathered pertaining to the various stakeholders within each case study area. Such information included:

i) The type of stakeholder group to which an individual or organization belonged: stakeholder groups were broken down into, Civil Society Organizations (district, provincial, national or international), government (district, provincial and national), independent (individuals), international governmental organizations, media personnel, political organizations and social movements, private companies, regulatory authorities, religious organizations, research and academic institutions, tourist organizations (boards of tourism), trade unions and professional associations, vulnerable groups (their representatives) and other.

ii) The level of interest the individual or organization might have within the project, both in terms of the scope and nature of their activities: such an analysis assessed how the objectives of a particular individual or organizations fitted into the objectives of the LiveDiverse project. Interests were broken down into *scope*, including agriculture, biodiversity conservation, culture, energy, environment, fisheries, forestry, gender, health, industrial, infrastructure, livelihoods and poverty alleviation, minority groups, recreation and tourism, rehabilitation, religious, water and other; and *nature,* including advocacy, commercial, conflict mediation/ resolution, law and policy implementation, law and policy making, law and policy reform, media, non-profit, mobilization of vulnerability groups, non-profit, networking, regulatory, representation, research and other. Clearly it was accepted that the scope and nature of interests of certain individuals and organizations might span a number of the above-mentioned categories.

iii) The relative priority that the individual or organization should be given within the project (high, medium or low): In this context *high, medium* and low were defined respectively as, a) those that can significantly *influence*, or are *important* to the success of, the project. Influence relates to how powerful a stakeholder is in terms of influencing policy; while importance relates to a stakeholder whose problems, needs and interests are a priority for the project, ie., the project will not be effective without their active involvement. Such stakeholders must be actively involved throughout the project lifecycle, in terms of participating in stakeholder workshops, focus groups and interviews; as well as reviewing draft project outputs, e.g. scenarios and policy options. Ultimately, such stakeholders should become potential ambassadors for promoting project concepts and outputs; b) those that can influence and/ or are important to the success of the project, but are not critical should be classified as medium priority. Such stakeholders should be included in workshops, focus groups and interviews *where possible* and asked to review draft project outputs, e.g. scenarios and policy options; and c) those with little influence and/or importance can be classified as law priority. Such groups should be kept informed of project.

iv) Future vision or goals of the individuals or organizations.

v) The kind of relationship (dependency) on natural resources; and

vi) Existing or potential conflicts with other stakeholder interests.

A range of data gathering techniques were used in order to provide information for each of the categories mentioned above. Initially, the case study partners completed a datasheet that included each category, based on secondary reports, and their existing knowledge of the areas. Secondly, the latter information was complemented by a series of stakeholder interactions within the case study areas, which included a number of interviews and workshops with a range of stakeholders. The information gathered from these exercises then provides the basis of the charts and texts that is presented in section 4.2 of this report.

References

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3. GLOBAL AND REGIONAL LAWS, POLICIES AND INSTITUTIONS

3.1 GLOBAL AND REGIONAL AGREEMENTS

The four States involved in the LiveDiverse project have committed themselves to a wide range of international and regional agreements not only to conserve biodiversity but also to improve their people's livelihoods. In order to grasp the breadth of their commitments, this section will provide an initial overview of these agreements.

3.1.1 Global agreements related to biodiversity

3.1.1.1 Biodiversity-related agreements

Among the many environmental multilateral agreements, we find biodiversity-related conventions dating back to the early 70's. Drawing from the abovementioned definition of biodiversity, we will focus on conventions dealing with species, ecosystems or genetic resources conservation.

The Convention on Biological Diversity (CBD) was adopted after a 10 year process of awareness over the importance of biological diversity not only for its own but also for humankind (Margraw, 2002). The process leading to its negotiation and adoption also underlined the divide between North and South countries, the latter being mostly the richer in biodiversity and the poorer from an economic standpoint. The CBD was adopted in 1992, and entered into force at the edge of 1993. Today, 193 countries are Party to the convention. The CBD pursues three objectives, the conservation of biological diversity (*in-situ* with the establishment of protected areas and *ex-situ* in gene banks), the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources. The convention includes the principle of national sovereignty over biological diversity, whilst also requiring international cooperation. Among its many provisions, article 8j should be underscored as it requires the contracting parties to protect indigenous and local communities' knowledge while also requiring their approval and the equitable sharing of the benefits deriving from the use of such knowledge.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) adopted in 1973, was motivated by the growing exploitation of wild fauna and flora through international trade. The convention regulates the trade in species according to the level of threat of extinction and classifies the species into three different lists. It sets up a system of trade permits and certificates which State parties have to implement.

Dating back to 1972, the Convention concerning the Protection of the World Cultural and Natural Heritage states that "the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage [...] and situated on its territory, belongs primarily to that State". The convention embraces cultural heritage and natural heritage of outstanding universal value. As a result, States establish a list of potential world heritage sites, and submit it to the World Heritage Committee,

which will review the criteria and decide whether or not the site can be included among the World Heritage sites. Despite this international process, the States remain sovereign and have the full responsibility to ensure the protection of their sites.

Whilst the World Heritage convention deals with tangible elements of the cultural and natural heritage, two new conventions have been adopted under the UNESCO with a view to protecting the diversity of cultural expressions and intangible heritage such as oral traditions, social practice, and knowledge. The first one is related to the safeguarding of the intangible cultural heritage in 2003, the second one is related to the protection and promotion of the diversity of cultural expressions in 2005.

The Convention on Wetlands of International Importance especially as waterfowl habitats (also known as the Ramsar Convention) was adopted in 1971, and amended subsequently. Ramsar is one of the first international environmental agreement adopted - even before the Stockholm Conference of 1972. The provisions of the Convention lay down very broad principles that have been specified by the decisions of the Conference of the Parties. The Convention requires States Parties to establish a list of wetlands of international importance to be conserved but also to promote the wise use of wetlands on their territory even if they are not on the Ramsar list. In both cases, the creation of nature reserves to conserve wetlands is advocated. The wise use principle is defined in Resolution IX.1 of the Conference of the Parties to the Ramsar Convention, as “the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.” The convention also requires States to provide for compensation in the case of loss of wetlands.

The Convention on the Conservation of Migratory Species of Wild Animals, the so-called Bonn Convention, was adopted in 1979 and entered into force in 1983. The convention requires States to provide for direct protection of endangered species. Moreover, the very nature of migratory species epitomizes the need for cooperation between States. To that end, the convention advocates parties to set up international agreement to conserve and manage migratory species with unfavorable conservation status and which would benefit from this interstate cooperation.

The International Treaty on Plant Genetic Resources for Food and Agriculture, adopted in 2001 under the auspices of the FAO, combines not only the conservation of biodiversity but also livelihoods issues through the aims of food security and sustainable agriculture. It is the first legally-binding treaty recognizing farmers’ rights. It creates a multilateral system of access and benefit-sharing.

The text of the 1997 UN Watercourses Convention was adopted by the General Assembly on the 21 May, 1997. To date there have been 21 signatories and/or ratifications to the Convention, which will enter into force upon the 35th ratification.

The 1997 UN Watercourses Convention is applicable to the uses, protection, preservation and management of international watercourses and their waters. A watercourse is defined under the Convention as, "a system of surface waters and groundwaters, constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus" (Art. 2). The 1997 UN Watercourse Convention provides that States must utilize an international watercourse in an "equitable and reasonable manner" (Art. 5). What is deemed "equitable and reasonable" will depend on a weighing of all relevant factors and circumstances, with no one use enjoying inherent priority over other uses (Art. 6, 10). States are also placed under an obligation to "take all appropriate measures" to prevent the causing of significant harm to other States (Art. 7)" What will be deemed "appropriate" will depend on the particular facts and circumstances of the case, but guidance can be sought from generally accepted practice of states. The 1997 UN Watercourses Convention further provides obligations on Watercourse States to protect and preserve ecosystems of international watercourses and the marine environment, as well as prevent, reduce and control pollution and the introduction of alien species.

The 1997 UN Watercourses Convention provides a host of instruments relating the implementation of the substantive rights and obligations. States are required to regularly exchange data and information on the condition of the watercourse, and the possible effects of planned measures on the condition of an international watercourse (Art. 9 and 12). Where a potentially affected State considers that another States planned use would be inconsistent with the rule of equitable and reasonable utilization, the States are required to enter into consultations and ultimately resolve any dispute in a peaceful manner. The 1997 UN Watercourses Convention also encourages parties to establish joint management mechanisms for their shared international watercourses (Art. 24), and States must enter into consultations concerning the management of an international watercourse, which may ultimately lead to the establishment of a joint management mechanism.

The 1997 UN Watercourses Convention provides that if the Parties to a dispute cannot resolve their disagreements by negotiation, one State or both, may seek the good offices of, or request mediation or conciliation by a third party or any joint watercourse institution, or submit the dispute to arbitration or the International Court of Justice (Art. 33). Compulsory third party fact-finding is also provided for in the Convention whereby, if after six months negotiations provide ineffective, a fact-finding commission is set up to provide recommendations an equitable solution.

References:

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3.1.1.2 Conventions not directly related to biodiversity

Other conventions do not refer directly to biodiversity conservation, but are of utmost importance as they regulate the impacts of global phenomena such as climate change, desertification that not only compound the degradation of natural resources and biodiversity but also worsen the living conditions of people especially in developing countries.

The United Nations Framework Convention on Climate Change was negotiated at the same time as the CBD, and was also adopted in 1992. This watershed convention pursues the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner". One of the main principles of this convention is the principle of common but differentiated responsibilities, so as to take into account the differences between developed and developing countries responsibilities in the climate change process. Under Article 4(1), the parties also commit to promoting, the "sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases…, including biomass, forests, and oceans as well as other terrestrial, coastal and marine ecosystems." This framework convention has been complemented in 1998 by the Kyoto Protocol.

The International Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa was adopted in June 1994 and entered into force at the end of 1996. It takes its roots in chapter 12 of Agenda 21, which called upon the United Nations to launch a process leading to a global convention. The process came up with a global convention along with four regional implementation annexes for Africa, Asia, Latin America and the Caribbean, and Northern Mediterranean region. The Convention underlines the need for an integrated approach to combat desertification and mitigate droughts, and calls for international cooperation and participation of all stakeholders. Affected parties (mostly developing countries) are required to devise a national action program. The convention places specific obligations upon developed countries .

Biodiversity conservation benefits also from the Biosafety Protocol to the CBD adopted in 2000. This agreement aims at "ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements" (article 1).

The lack of a global consensus over related to the protection of forests around the time of the Rio Conference in 1992, did not preclude the adoption of an agreement to foster international cooperation and promote the sustainable management and conservation of tropical forests. To that aim, the Forests

International Tropical Timber agreement, adopted in 1994 created the International Tropical Timber Organization.

3.1.1.3 Non-binding global agreements

Two forerunning documents were adopted in the 70's and 80's. The Stockholm Declaration adopted in 1972, was the first non-legally binding document to trigger off international awareness on world environmental problems and to lay down major principles. In 1982, the General Assembly of the United Nations adopted the World Charter for Nature, which focused on the importance of natural resources protection. It was the starting point for a ten years process which ended in the adoption of the CBD.

Despite their soft nature, the Rio declaration and Agenda 21 are major outputs of the Rio conference. The Rio Declaration sets forth 27 principles guiding the international cooperation and State action. Even if the Rio principles are not binding within the Declaration, State can include them in their own legal texts, upgrading them with a more legal nature (ex: precautionary principle). Agenda 21 made up of thematic chapters, is a plan of action to be implemented by States on the national and local levels. In spite of their non-legally binding nature, the progress in their implementation is reviewed by the UN Commission on Sustainable Development.

The last non-binding document adopted during the Rio Conference is the Statement of Principles on the Sustainable Management of Forests. As noted above efforts to reach a convention never succeeded as forests are not only a natural resource to be protected but also a source of income for countries. The discussions focused on the contentious debate over the status of forests. The Statement recalled the sovereign right of countries over their forests.

3.1.2 Regional agreements related to biodiversity

3.1.2.1 Africa

A major piece of regional environmental law for Africa is the African Convention on the conservation of Nature and Natural Resources, and its revised version (not yet into force). The revised version of the convention takes fully into consideration the Rio and post Rio conventions' principles and literature. South Africa has not yet signed nor ratified these conventions.

Regarding water, the Revised SADC (Southern African Development Community) Protocol on Shared International Watercourses can be mentioned. Its objective is "to foster closer cooperation for judicious, sustainable and co-ordinated management, protection and utilization of shared watercourses".

3.1.2.2 Central America

Some relevant conventions can be mentioned with respect to biodiversity conservation in Central America.

One of the oldest conventions on nature conservation is the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, entered into force in 1942. The Convention for the Conservation of the Biodiversity and the Protection of Wilderness Areas in Central America, adopted the same day as the CBD and entered into force in 1994 is more specific to Central America and directly impacts Costa Rica. A regional Convention for the management and conservation of the natural forest ecosystems and the development of forest plantations, known as the Central American Convention on forests was adopted in 1992.

3.1.2.3 Asia

The ASEAN Agreement on the conservation of nature and natural resources is the only environmental agreement in South East Asia. Despite being an ASEAN member, Vietnam is not a party to it.

3.1.3 Global and Regional Human Rights Agreements

3.1.3.1 Global agreements

Despite its non legal binding status *per se*, the Universal Declaration of Human Rights is acknowledged as customary law, (Rehman, 2002), and is a major international document related to the protection of human rights. It was adopted in 1948 by the General Assembly of the United Nations in the aftermath of World War II. Embracing a wide range of human rights, the UDHR should be a "common standard of achievement for all peoples and all nations" and recognizes the inherent dignity and the equal and inalienable rights of all human beings.

Given the soft nature of the UDHR, the international community looked for a binding legal framework to protect human rights. Even if the drafting of one single covenant was made difficult due to the global political climate, ie., Cold War and the Decolonization process), the two covenants are still the two sides of a same coin, as human rights are interdependent.

On the one hand, the International Covenant on Civil and Political Rights adopted in 1966 entered into force 10 years later, calls on State Parties to ensure and respect to all individuals on their territory, the rights recognized in the Covenant, such as the right to life, right to liberty, right to freedom of thought, conscience and religion, etc. The Human Rights Committee, composed of independent experts, monitors the implementation of the Covenant. Indeed, the Covenant comes along with an Optional Protocol adopted at the same time of the Covenant, which gives competencies to the Human Rights Committee to receive and consider individual complaints on the violation of the Covenant.

On the other hand, the International Covenant on Economic, Social and Cultural Rights also adopted in 1966 entered into force 1976, covers a wide range of substantive rights (right to work, right to an adequate standard of living including food, housing, right to education, etc.) and recalls cross-cutting principles in their implementation such as non discrimination and gender equality. Even if the covenant requires States to take steps and progressively

implement these rights, they are on an equal footing with civil and political rights. Moreover, the recent adoption of an optional Protocol to the covenant which will give the possibility for the Committee to receive and consider individual communications, further reasserts the indivisibility and interdependency of rights by creating the same mechanism as under the covenant on civil and political rights. Both Covenants acknowledge the right of self-determination of peoples.

The International Convention on the Elimination of All Forms of Racial Discrimination was adopted the year before the covenant in 1965 and entered into force four years later. The convention urges State parties to condemn racial discrimination and to pursue polices of eliminating it. In the framework of the Convention, Article 1.1 provides that racial discrimination encompasses "any distinction, exclusion, restriction or preference based on race, color, descent, or national or ethnic origin" which leads to an impediment of the full realization of human rights. The implementation of the convention is monitored by the Committee on the Elimination of Racial discrimination made of independent experts, which can examine individual complaints.

The only legally-binding treaty related to indigenous people was adopted in 1989 under the International Labor Organization, namely, the Convention concerning Indigenous and Tribal Peoples in Independent Countries, it entered into force in 1991.

The Declaration on the rights of Indigenous Peoples, adopted in 2006 and despite its soft nature, is a major achievement in acknowledging many rights of indigenous peoples. It took more than 10 years to come up with this document, and only 4 States voted against it, and 11 abstained from voting. The right of self-determination was one of the main stumbling blocks to the negotiation. But the Declaration goes further than the convention in many aspects.

Related to the implementation of the right to the environment, the Aarhus convention is also a relevant agreement as its ratification is not limited to UNECE countries. The convention fleshes out the three components of the right to the environment: the right of access to information, right to participation and the right of access to judicial procedures. Limited to the environmental field, this convention could lead the way to a future international convention related to procedural rights (participation, information, judicial) which are complementary and essential to substantive human rights.

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3.1.3.2 Regional agreements

On the regional level, two main documents can be mentioned as they are relevant for two countries of the LiveDiverse, the American Convention on Human Rights (1969 entered into force 1978) with its additional protocol, and

the African Charter on Human and Peoples' Rights (1981, entered into force in 1986), its protocol on the rights of women (2005) and its protocol on the Establishment of an African Court on human's and People rights which entered into force in 2004.

The issue of human rights in Asia is much more contentious compared to other parts of the world. The only text related to human rights is an Asian Human Right Charter which origin is not governmental.

3.2 GLOBAL AND REGIONAL ORGANISATIONS AND THEIR POLICY AREAS

3.2.1 Inter-governmental organizations and their policies areas

Various UN organizations play an active role in relation to biodiversity conservation and sustainable livelihoods.

The UN Environment Programme (UNEP) seeks to provide leadership and encourage partnership in caring for the environment, by "inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations". There are eight divisions in UNEP, namely, early warning and assessment; policy development and law; environmental policy implementation; technology, industry and economics; regional cooperation; environmental conventions; communications and public information; and global environment facility coordination. UNEP also hosts a number of environmental secretariats including the Convention on Biological Diversity.

The World Bank provides financial and technical assistance to developing countries around the world in order to fight poverty. Within the context of biodiversity, the Bank supports the establishment and strengthening of protected areas (including activities in buffer zones), the sustainable use of biodiversity outside protected areas, the eradication of alien species, and the biodiversity conservation through improvement management and sustainable use of natural resources in the production landscape. A key future focus of the banks work is to mainstream biodiversity in the production landscapes, including agriculture, fisheries and other rural development activities.

A key body for Human Rights within the UN system is the Office of the High Commissioner for Human Rights, which acts as the principal focal point for mainstreaming human rights research, education, public information, and advocacy activities in the United Nations.

The Food and Agriculture Organization of the United Nations (FAO)'s ultimate goals is to, alleviate poverty and hunger by promoting sustainable agricultural development, improved nutrition and food security, and the access of all peoples at all times to the food they need for an active and healthy life. The central importance of biodiversity conservation to FAO's activities, was emphasized in commitment 3 of the Rome Declaration on Food Security, in 1996. Based on that

mandate, FAO actively promoted the conservation and sustainable use of biodiversity for food and agriculture. The International Plant Protection Convention, the Code of Conduct for Responsible Fisheries, and the International Treaty on Plant Genetic Resources, are all examples of agreements that FAO has facilitated. FAO also assists in the implementation of the Global Plan of Action on Plant Genetic Resources, and the Global Plan of Action for Animal Genetic Resources, adopted under the auspices of the FAO's Commission on Genetic Resources for Food and Agriculture.

An important global development related to sustainable livelihoods and biodiversity conservation is the "rights based approach" which has been advocated through a number of global policy documents. The United Nations Millennium Development Goals (MDGs) set clear targets for achieving a number of relevant goals, including general equality, environmental sustainability and the eradication of extreme poverty and hunger. Such a joined up approach to sustainable livelihoods and biodiversity conservation, has filtered down into specific work programmes. For example, the Convention on Biodiversity's Work Programme on Protected Areas seeks promote, the establishment, management, and monitoring of protected areas with the full and effective participation of, and full respect for the rights of, indigenous and local communities consistent with national law and applicable international obligations (CBD Decision V/28). The Conference of the Parties to the Convention on Biodiversity has recognized, the "specific nature of agricultural biodiversity and its distinctive features and problems requiring distinctive solutions", and has given FAO a leading role in the programme of work on agricultural biodiversity (Decision V/5, Nairobi 2000).

The UN Educational, Scientific and Cultural Organization (UNESCO) seek to tackle the root causes of biodiversity erosion and loss due to unsustainable development, through a range of programmes; including human and social sciences, culture and its diversity, and education and communication. UNESCO leads several activities which aim to educate and to raise public awareness of the reasons for biodiversity conservation, to fill the gaps in knowledge of biodiversity and to catalyze further international action for its sustainable use. Through UNESCO's Man and the Biosphere Programme, over 553 world wide Biosphere reserves in 107 countries have been recognized that innovate and demonstrate approaches to conservation and sustainable development.

The UN Development Programme (UNDP) has a focus on the interface between sustainable livelihoods and biodiversity conservation through its Energy and Environment Practice. Through capacity development, knowledge management, policy advice and advocacy, the organization is active in more than 140 countries. Policy and programmes include the Biodiversity Global Programme, the Equator Initiative, the Global Environment Facility (GEF) and the GEF Small Grants Programme.

As mentioned above the International Topical Trade Organization (ITTO) is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources. The organization has 59 member states that represent about 80% of the world's tropic forests and 90%

of the global tropical timber trade. The remit of ITTO is to develop international agreement policy documents to promote sustainable forest management and forest conservation, and assist tropical member countries to adapt such policies to local circumstances and implement through field projects.

The UN system also includes a number of relevant regional commissions. The Economic Commission for Latin America (ECLA) was established in 1948 in order to contribute to the sustainable development of Latin America, coordinating actions directed towards that and, and reinforcing economic ties among countries. The Economic and Social Commission for Asia and the Pacific was established in 1947 and has a membership of 62 governments. The Commission's areas of focus include, macroeconomic policy and development; statistics; sub-regional activities for development; trade and investment; transport; environment and sustainable development; information and communications technology and disaster risk reduction, and social development. In Africa, the Economic Commission for Africa (ECA) was established in 1958 to encourage economic cooperation among its member states. ECA has 53 member States, and focuses on seven work programmes: Statistics; Food Security and Sustainable Development; Gender and Social Development; Science and Technology; Regional Integration; Trade, Finance and Economic Development; and Governance and Public Administration.

The oldest regional organization dating back to 1989 is the Organization of American States, which seeks to promote democracy, defend human rights, ensure a multidimensional approach to security, foster integral development and prosperity, and support inter-American legal cooperation. Additional regional organizations in the Americas, include the Council of the Americas, Inter-American Commission on Human Rights, and the Inter-American Development Bank. In Africa a number of inter-governmental regional organizations exist, including the African Development Bank, African Union, Asian Development Bank, the New Partnership for Africa's Development (NEPAD), the Common Market for Eastern and Southern Africa (COMESA), and the Southern African Development Community. Other regional organizations in Asia, include the Asia-Pacific Economic Cooperation (APEC), of which Vietnam is a Member, the Association of South East Asian Nations (ASEAN), the South Asian Association for Regional Cooperation, and the South Asian Regional Cooperative Environment Programme.

3.2.2 Non-governmental organizations and their policies areas

A large number of non-governmental organizations conduct activities related to the interface between biodiversity conservation and sustainable livelihoods. An indicative list of such organizations is included below.

The World Conservation Union (IUCN), supports scientific research, manages field projects all over the world, and brings governments, non-government organizations, United Nations agencies, companies and local communities together to develop and implement policy, laws, and best practice. IUCN works on issues related to biodiversity, climate change, energy, livelihoods and building a green economy.

Similarly, the World Wildlife Fund (WWF) was established in 1961 and is now one of the largest environmental organizations in the world, with over 1,300 conservations projects, which focus on conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

Conversation International was established in 1987 and comprises over 900 employees in around 30 global offices, and seeks to build upon a strong foundation of science, partnership and field demonstration in order to empower societies to sustainably care for nature.

The Nature Conservancy, established in 1951, works around the world to protect ecologically important lands and waters for nature and people, as well as threats to conservation, that are addressed by the organization, including climate change, fire, freshwater, forests, invasive species and marine ecosystems.

The Wildlife Conservation Society, was founded in 1895, to save wildlife and wild places across the globe. Currently the society manages around 500 conservation projects in more than 60 countries; with a focus on four issues, namely climate change, natural resource exploitation, the connection between wildlife health and human health, and the sustainable development of human livelihoods.

The Earthwatch Institute was founded in 1971 and is working with over 3,500 volunteers on 140 projects within 50 countries. Activities of the institute include, (i) ensuring global and local communities put a tangible value on biodiversity; (ii) building up the conservation capacity of others to protect the natural world; (iii) safeguarding havens of biodiversity; (iv) reducing the impact of climate change; (v) building livelihoods and improve community welfare; and (vi) helping business to reduce its impact on biodiversity.

Fauna and Flora International (FFI) was founded in 1903 as the first conservation organization. Originally focusing on Africa, FFI now has a global presence - through over 100 projects in nearly 40 countries - drawing worldwide attention to the plight of rare and endangered species and habitats.

The Botanic Gardens Conservation International (BGCI) exists to ensure the worldwide conservation of threatened plants, whilst recognizing the intrinsic links between conservation and other global issues, such as poverty, human well being and climate change. BGCI supports over 700 members, mostly botanic gardens, in 118 countries through the development and implementation of global policy, namely the Global Strategy for Plan Conservation, at the global, regional, national and local level.

As a global, research-driven and action oriented, monitoring network, TRAFFIC, which was established in 1976, works to ensure that trade in wild plants and animals not a threat to the conservation of nature. TRAFFIC works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Started in 1982, the World Resources Institute is a global environmental think tank that has been active for 25 years, and focuses its work around four key programmes: climate protection, governance, markets and enterprise, and people and ecosystems.

Other research related organizations include: the Centre for International Forestry Research (CIFOR), a non-profit global facility dedicated to advancing human wellbeing, environmental conservation and equity; the International Institute for Sustainable Development (IISD), a non-profit research institute promoting change towards sustainable development; the Smithsonian Institute, Monitoring and Assessment of Biodiversity Programme, which provides scientific information and builds in-country capacity to foster sustainable use of natural resources; and the Natural Resources Institute (NRI), which is an internationally recognized, multidisciplinary center for research, consultancy and education for the management of natural and human resources.

A further set of global non-governmental organizations are focused primarily on livelihood issues. Examples of such organizations include Oxfam International, which is dedicated to fighting poverty and related injustice around the world. The International Food Policy Research institute seeks to identify and analyze policies for sustainably meeting the food needs of the developing world. Similarly, the Centre for Global Development is an independent think tank working on reducing global poverty and inequality.

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Botanic Gardens Conservation International – http://www.bgci.org

Centre for Global Development – http://www.cgdev.org

Centre for International Forestry Research – http://www.cifor.cigar.org

Common Market for Eastern and Southern Africa – http://www.comesa.int

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Earthwatch Institute – http://www.earthwatch.org

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Economic and Social Commission for Asia and the Pacific – http://www.unescap.org

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International Food Policy Research Institute – http://www.ifpri.org

International Institute for Sustainable Development – http://www.iisd.org

International Topical Trade Organization – http://www.itto.int

Natural Resources Institute – http://www.nri.org

The Nature Conservancy – http://www.nature.org

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4. NATIONAL AND SUB-NATIONAL LAWS, POLICIES AND INSTITUTIONS

4.1 BA BE NATIONAL PARK AND NA HANG NATURE RESERVE, VIETNAM

4.1.1 Institutions and actors

4.1.1.1 Introduction

This section describes the key organizations and actors relating to the Ba Be National Park and the Na Hang Nature Reserve. First, the overall government system in Vietnam is described, followed by the description of organization related to biodiversity, water resources management, livelihoods and rural development.

4.1.1.2 Government System in Vietnam

a) Legislative arm

Vietnam is a socialist country, which has a highly centralized system of government. The overview of the government system is illustrated in the figure 1. The National Assembly is the highest government organization in Vietnam, and the only body vested with constitutional and legislative powers (Constitution amendment 2001, 2001; Nguyen 2009) (Embassy of Socialist Republic of Vietnam in the United States of America). The main function of the National Assembly includes drawing up and amending the Constitution and laws, deciding on national socio-economic development plans, electing or suspend Presidents, the Vice-Presidents, Chairmen, Members of standing committees of the National Assembly, the Prime Ministers, Deputy-Prime Ministers, Ministers and other members of the Government, and Chief Justices of the Supreme People's Court (Constitution amendment 2001, 2001). The Standing Committee of the National Assembly is the permanent body of the National Assembly, and its main function is to organize, prepare and chair the National Assembly; and explain and supervise implementation of the Constitution, laws and ordinances. The Committee also supervises and guides activities of People's Council at province and city level, and repeals any improper resolutions (Constitution amendment 2001, 2001). Currently, the National Assembly has 498 members (Embassy of Socialist Republic of Vietnam in the United States of America, undated), and the term of each legislature is five years. Members are elected through popular vote (Constitution amendment 2001, 2001). The President is the head of the State, and accountable to the National Assembly. The President represents the State in domestic and foreign affairs, promulgates the Constitution and laws, and commands People's armed forces. (Constitution amendment 2001, 2001)

b) Executive arm

The Government, which is the executive arm of the National Assembly, is composed of the Prime Minister, Deputy Prime Ministers, Ministers and the heads of ministerial level agencies (Law on organization of the government, 25

December 2001). The Government is responsible for the implementation of law and policy adopted by the National Assembly. It leads the work of Central Ministries which includes all the lower levels of administrative body at province and local levels, and also leads the work of the People's Committee, which is an executive agency of government at province, district and commune level. The Government also submits draft laws, statues and other bills to the National Assembly and the National Assembly's Standing Committee, and also negotiates and signs international treaties. The Prime Minister is the head of the government, and amongst many duties, the Prime Minister reports to the general public on important issues which the Government needs to address, through mass media. (Constitution amendment 2001, 2001)

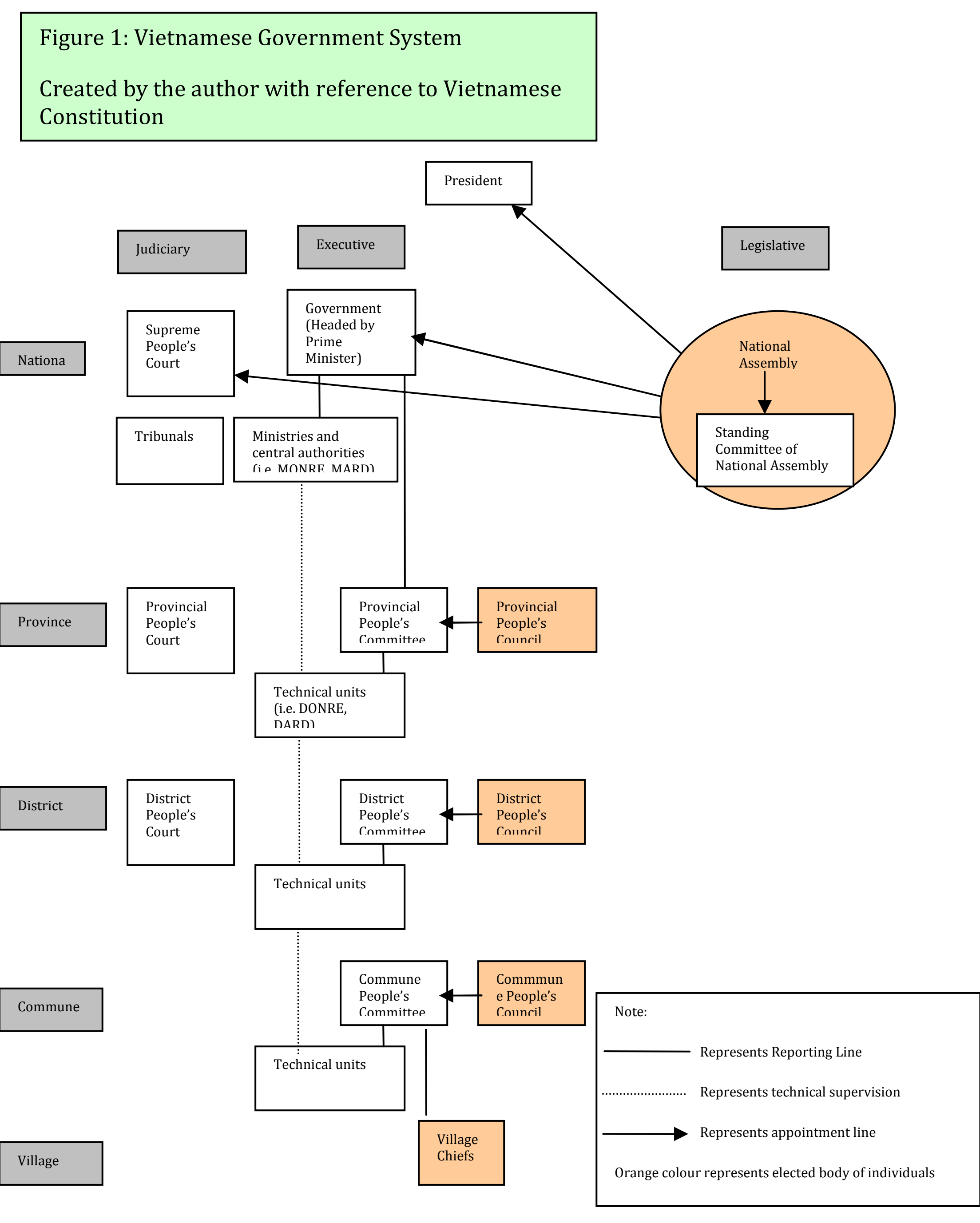


Figure 1: Vietnamese Government System

Created by the author with reference to Vietnamese Constitution

The country is divided into provinces, which are divided into districts, provincial cities and municipalities. Districts are divided into communes and townships, while cities and municipalities are divided into wards and communes.(Constitution amendment 2001, 2001) A commune is composed of several villages.

The People's Council and People's Committee conduct the executive function at the provincial, district and commune levels. The People's Council is the State authorities in each locality, and its members are elected by the local population. Its duty is to adopt resolutions that ensure strict observance of the Constitutions and laws adopted at the National Assembly level. The People's Committee is the executive agency of the respective People's Council, and it heads the administration of respective local authorities including sub-units of central ministries. The People's Committee is elected by the People's Council at the respective level. (Constitution amendment 2001, 2001)

c) Judiciary arm

The Judiciary arm of the Vietnamese government is composed of the Supreme People's Court, Provincial People's Court, District People's Court, the Military Tribunals and other Tribunals. The Supreme People's Court is the highest judiciary body. Most cases related to criminal, civil, economic, labor and administrative disputes are initially brought to the District People's Court. Disputes decided at the District People's Court can be appealed to the Province People's Court, then to Supreme People's Court Respectively. The Constitution also encourages grass-roots level people's organizations to deal with minor disputes. (Constitution amendment 2001, 2001; Nguyen 2009)

d) Viet Nam's Communist Party

Vietnam's Communist Party is the only political party in Vietnam. Though it is not part of the government structure, it is important to mention in this section as the Vietnamese Constitution specifically mentions its leadership role in providing direction to the country (Constitution amendment 2001,2001), and it plays a critical role within every part of Vietnamese society. The National Party Congress, which meets every five years, is the highest organ of the Party. The Congress provides and approves overall party policy, which is developed by the Political Bureau. The Party's Political Bureau is composed of the highest ranking members of the Party, and it is the supreme policy making body. Law and policy discussed at the National Assembly are mostly developed by the Political Bureau. The Bureau has administrative units including the Secretariat, the Central Control Commission and the Central Military Party Committee. The head of the Secretariat is the Party General Secretary, and it oversees day-to-day implementation of the party policy. The Vietnam Communist Party caucuses operate at various levels of government and mass organizations, and appoint key government positions. Though anyone can run for election, Cima (1987) claims that in reality the Vietnam Communist Party tends to appoint candidates, and electorate receives directive from the party concerning who should be elected. (Cima 1987)

The Party chapter or cells are the basic unit of the party and they exist at every level of the society, including the village level. The Regulation on the Exercise of Democracy in Communes (issued together with Government's Decree No. 79/2003/ND-CP of July, 2003) specifically mentions the Party's role as 'The promotion of the people's right to mastery must be closely linked to the mechanism of the Party's leadership'(Regulation on exercise of democracy in communes, 7 July 2003).

e) Mass organizations

At the local level, mass organizations which are closely linked to the Vietnamese Communist Party exist to mobilize and recruit party members, and they are segregated by sex, age, profession etc (Cima 1987). The Vietnam Fatherland Front is the largest mass organization, which functions as an umbrella of 29 organizations (Norlund January 2007). The law on Vietnam Fatherland Front (14/1999/QH10) defines this organization as political coalition organization lead by the Communist Party of Vietnam, which creates political base for people to express their wills. According to the law, the Vietnam Fatherland Front organizes a consultative conference to select and recommend candidates for the election of deputies to the National Assembly or the People's Councils. It takes part in the legal proceedings and selection of judges, and it supervises the operations of the State agencies and delegates elected by people. (Law on Vietnam Fatherland's Front, 12 June 1999) The Constitution says that representative from relevant chapters of the Vietnam Fatherland Front and other popular organizations can be invited to the National Assembly and People's Council meetings(Constitution amended 2001, 2001). The Regulation on the Exercise of Democracy in Communes (issued together with Government's Decree No. 79/2003/ND-CP of July, 2003) says Commune People's Committee needs to coordinate with the Vietnam Fatherland Front, in directing village chiefs in implementing decision by the Commune People's Committee(Regulation on Exercise of Democracy in Communes, 7 July 2003).

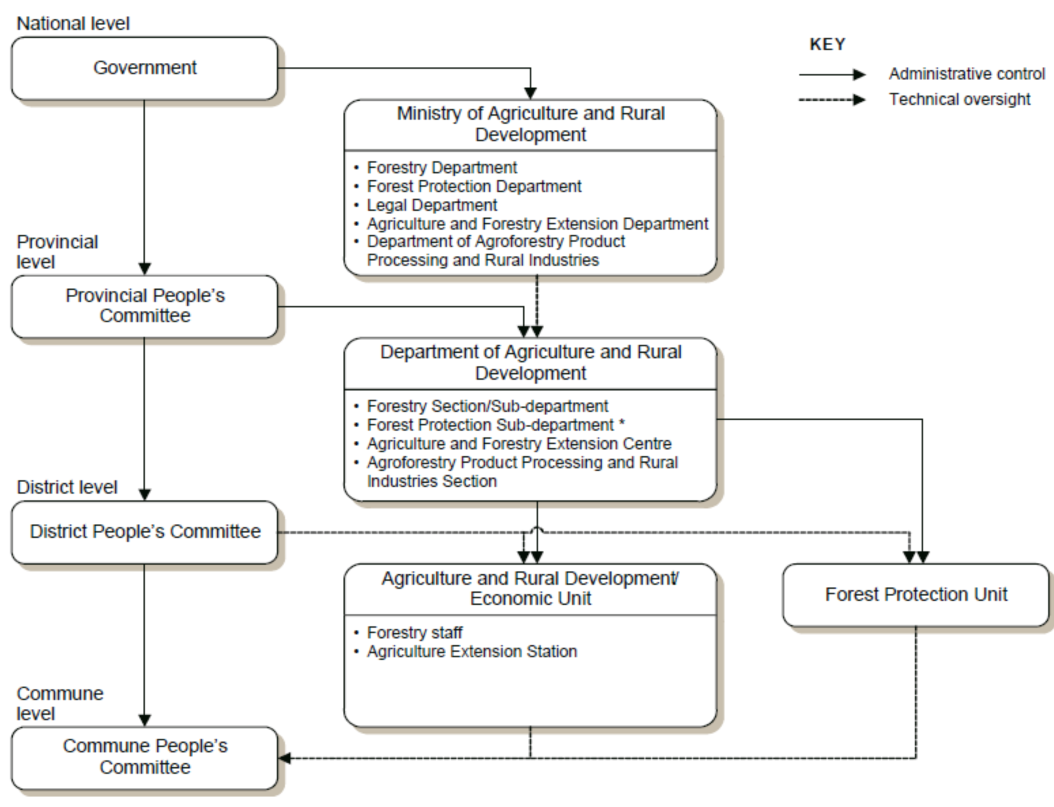
There are other mass organizations that have historically had a special relationship with the Communist Party, including Women's Union, Farmer's Association, Youth Organization, War Veterans Association and Worker's Organization (VGCL). They exist at each administrative level from central to village level, and the total number of members for these five organizations is approximately 32 million. As Norlund points out, "An important point regarding the role of mass organizations in civil society is that the grassroots organizations have a fair amount of autonomy and can act in their local settings, whereas the higher levels often serve as a career ladder both within the organizations and into government or party positions'(Norlund January 2007).

4.2.1.3 Organisations and Actors related to Biodiversity

In Vietnam, protected areas within forest landscape is under the management of the forestry sector. Forests are categorized into three types namely; Special-Use Forests (SUFs), Protection Forests, and Production Forests. All the protected areas with forest landscape including national parks and nature reserves, are categorized as SUFs. The Ministry of Agriculture and Rural Development

(MARD) is the primary governmental organization managing the forestry sector. Since 1986, the Vietnamese Government has initiated various policies allocating forest and land to households, which is administered by MARD. One of the main purposes of forest allocation policy particularly in mountainous areas, is to improve the livelihoods of the poor. (Phuong) Overall organization of forest administration system is illustrated in figure 2 (Tan, Chinh et al. 2008).

Figure 2. Organizational structure of forest administration system, 2006.



Source: (Tan, Chinh et al. 2008)

Ministry of Agriculture and Rural Development

The Ministry of Agriculture and Rural Development (MARD) has the overall responsibility for the forest management in Vietnam. MARD develops national forestry development strategy and plans, and develops a system for protection forests and special-use forests of national or inter-provincial importance. MARD is also responsible for conducting surveys related to forest resources. In addition, MARD has responsibility to change the designation of forest types, and grant and withdraw all types of forest permits. (Decree on Implementation of the Law on Forest Protection and Development, 3 March 2006)

Several departments under MARD have responsibility for forest management. The Forestry Department (FD) takes overall responsibility for the State management of forest, the Forest Protection Department is responsible for enforcement of the forest law and monitoring, and the Legal Department is responsible for national forest policy. There are two departments dealing with forest production and processing; the Agriculture and Forestry Extension Department and Department of Agroforestry Product Processing and Rural Industries. (Tan, Chinh et al. 2008)

Forestry research, education and training organizations

The Forest Inventory and Planning Institute (FIPI) and the Vietnam Forestry University (VFU) are both organizations under MARD, which conducts research as well as graduate and post-graduate level education on forestry. MARD also has a number of schools and colleges which provide training for in-service forestry staff. Other research organizations include the Agro-forestry Science and Technology Institute of the Central Highlands, and the Central Forest Seed Company which conducts research on tree seeds and nurseries. (Tan, Chinh et al. 2008)

At the Provincial level, the Department of Agriculture and Rural Development has sub-departments that receive technical oversight from equivalent departments within MARD at the national level, and work to fulfill forestry management responsibility under Provincial People's Committee. At the district level, the Agriculture and Rural Development/Economic unit and the Forest Protection Unit supports District People's Committee as well as Commune People's Committee to fulfill their forestry management responsibilities.

Provincial People's Committee

The Provincial People's Committee (PPC) approves and decides forest protection and development plans for the province and district level. PPC is also responsible to establish different types of forest management areas (i.e. protection, special use, and production forests) and to organize classification and delimitation of boundaries of forest areas. The PPC also organizes statistics, inventory and monitoring of forest resources with actual work being conducted by the district level People's Committee. PPC also organizes forest assignment, lease and recovery, and administers dossiers. (Decree on Implementation of the Law on Forest Protection and Development, 3 March 2006) .

District People's Committee and Commune People's Committee

The implementation of field tasks to fulfill responsibility for PPC over forestry, is passed onto the lower level of People's Committee. The Commune People's Committee develops forest protection and development plans, which are submitted to District People's Committee for approval. The District People's Committee develops its forest protection and development plan, which is then submitted to the Provincial People's Committee. Statistics for forest is collected by Commune People's Committee, which is compiled by the District People's Committee and contributes to the Provincial level. (Decree on Implementation of the Law on Forest Protection and Development , 3 March 2006)

The Commune People's Committee is at the front-line in terms of implementing various forestry plans. It is responsible for developing schemes for forest assignment and lease, which will be submitted to the state agencies for approval. It also submits plans for forest areas that are not yet assigned or leased by the State, to the District People's Committee. The Commune People's Committee is also responsible for guiding local communities in compliance to the forestry related regulation. The President of the Commune People's Committee is responsible for reporting on any illegal activity and loss of forest within the forest area of their jurisdiction. (Decree on Implementation of the Law on Forest Protection and Development , 3 March 2006)

Special-Use Forest Management Board

Special-Use Forest (SUFs) categorized as National Parks or Nature Reserve must establish a management board (Law on Forest Protection and Development, 14 December 2004). MARD determines the organizational structure for such a board nationwide. Management boards for SUFs are public organizations, however, if the forest is in the area with potential for eco-tourism development, the management board can establish a separate unit to develop tourism services and operate as revenue-generating public unit, which is entitled to borrow capital for tourist development investment.(Regulation on Forest Management, 14 August 2006) In the LiveDiverse case study area, both Ba Be National Park and Na Hang Nature Reserve have established management boards.

Ministry of Natural Resources and Environment

The Ministry of Natural Resources and Environment (MONRE) is responsible for the State management of land, water resources, mineral resources, geology, environment, meteorology, hydrology, as well as sea and inland areas(Nguyen 2009). As MONRE is responsible for management of land, MONRE is required to coordinate with MARD for assigning land use and leasing and recovering of forests(Decree on Implementation of the Law on Forest Protection and Development, 3 March 2006). MONRE is also responsible for coordinating and implementing issues related to The Convention on Biological Diversity, and the implementation of Vietnam's Biodiversity Action Plan (ICEM 2003).

Biodiversity Conservation Agency

The Biodiversity Conservation Agency was established in 2008 under MONRE. The Agency provides widespread support in the area of biodiversity conservation, including developing legal documents related to biodiversity and gene resources. As Vietnam recently adopted its law on Biodiversity in 2008, the Agency is currently busy reviewing relevant legislations and ensuring consistency. (Centre for Water Law Policy and Science 2009)

Other Ministries

While MARD has the primary responsibility for the forest management in Vietnam, several other Ministries are required to cooperate with MARD on forestry related issues. The Ministry of Public Security is responsible for the police force. The Ministry is responsible for ensuring that local police forces are

coordinating with local forest rangers in their activity to eliminate illegal forest activities, including illegal harvesting of forest products and their transportation, as well as illegal hunting and transportation of wildlife. The Ministry of Defense has responsibility for forest-fire fighting, supporting activity related to the enforcement of forestry related law and regulations, and the mobilization of people's participation to forest management in border provinces, islands and strategic defense and security areas. The Ministry of Culture Sports and Tourism has responsibility for ensuring cultural and historical values associated with special forest-use area are conserved, and integrated into the planning. (Decree on Implementation of the Law on Forest Protection and Development, 3 March 2006)

Forest Enterprises

In Vietnam, there are a number of state-owned forest enterprises which are engaged in afforestation, harvesting of forest products and trading. According to Tan et al.(Tan, Chinh et al. 2008) there are around 319 State Forest Enterprises, which includes the Vietnam Forest Corporation (Vinafor), and Central Forest Seed Company. Vinafor is a large scale corporation that holds 45 member enterprises. The company originally started as forest and wood production and trading, but recently expanded its business area into other sectors such as construction, manufacturing and tourism. There are around 250 wood and forest product processing enterprises which are under the provinces. As of 2003, 40 foreign-invested enterprises and 786 non-state forest enterprises are also engaged in forestry sector. (Tan, Chinh et al. 2008)

Ethnic Minority

Ethnic minority groups residing in mountainous area in Vietnam, have traditional ways of managing forest, which have been practiced for a long time, prior to the introduction of the forest allocation policy by the Government in 1986. The Government forestry management based on statutory law has different requirements compared to customary practices, and has therefore impacted ethnic minority groups. For instance, typical customary practice limits forest land and use of forest to the community members whereas the statutory law allows outsiders to have land tenure for a long period of time.(Tan, Chinh et al. 2008)

Committee for Ethnic Minorities

Ethnic minorities in mountain areas constitute 14% of the Vietnamese population (Asian Indigenous & Tribal People's Network, undated). The Committee for Ethnic Minorities (CEM) is a ministerial level agency under the Government established in 2008 (Committee for Ethnic Minorities). The Committee was originally established in 1993 as the Committee for Ethnic Minorities and Mountainous Areas (CEMMA), and since then has changed its structure and names several times before the current CEM was formulated (Asian Indigenous & Tribal People's Network). The main responsibility of CEM is to develop strategies, policies, programs and projects related to socio-economic development of ethnic minority areas. The CEM also conducts research on ethnic minorities. (Committee for Ethnic Minorities, undated)

International Organizations

Several international organizations are working in Vietnam in the area of biodiversity conservation. The United Nations Development Programme (UNDP) supports the national government to build its capacity to comply with and implement Multilateral Environment Agreements such as the Convention on Biological Diversity. The UNDP also supports both small and large scale conservation projects. The UNDP financed the PARC project, which was implemented in both the Ba Be National Park and the Na Hang Nature Reserve. The PARC project was implemented from 1999 to 2004 by the Forest Protection Department within MARD, with the aim of developing a landscape level conservation strategy through local participation as a basis for the management of the protected area, and the improvement of local livelihoods. The International Union for Conservation of Nature (IUCN) provided technical advice to the PARC project. (Johns May 2004) The World Wide Fund for Nature (WWF) also works in the protected area and forest management in central and southern Vietnam, as well as supporting initiatives for local level production and sustainable management of rattan.

4.2.1.4 Organisations and actors related to river basin and water resources management

According to the Law on Water Resource (No.9/1998/QH 10), the Government is ultimately responsible for the management of water resources. Key State agencies responsible for water resources management include the National Water Resources Council, Ministry of Natural Resources and Environment (MONRE) and its Department of Water Resources Management. The Ministry of Agriculture and Rural Development (MARD) was previously responsible for water resources, however, the responsibility is now transferred to the MONRE. The MARD is still responsible for some of the water related issues, such as irrigation, fisheries, dykes, flood and storm management. Other Ministries such as the Ministry of Industry, the Ministry of Health, the Ministry of Construction and the Ministry of Transport also have responsibility over water resources, through their specialized environmental departments (Nguyen 2009). Figure 3 illustrates key organizations involved with water resources management in Vietnam.

National Water Resources Council

The National Water Resources Council plays a consultative role to the Government on water resource management issues. The Council gives comments on river basin planning and plans for water resource regulations regarding big river basins, prior to approval by the prime minister. It is chaired by the Deputy Prime Minister, with members from different Ministries and provincial authorities. The permanent office is located within the Ministry of Natural Resources and Environment. (Campbell, Rieu-Clarke et al. 2009; December 2008)

Ministry of Natural Resources and Environment

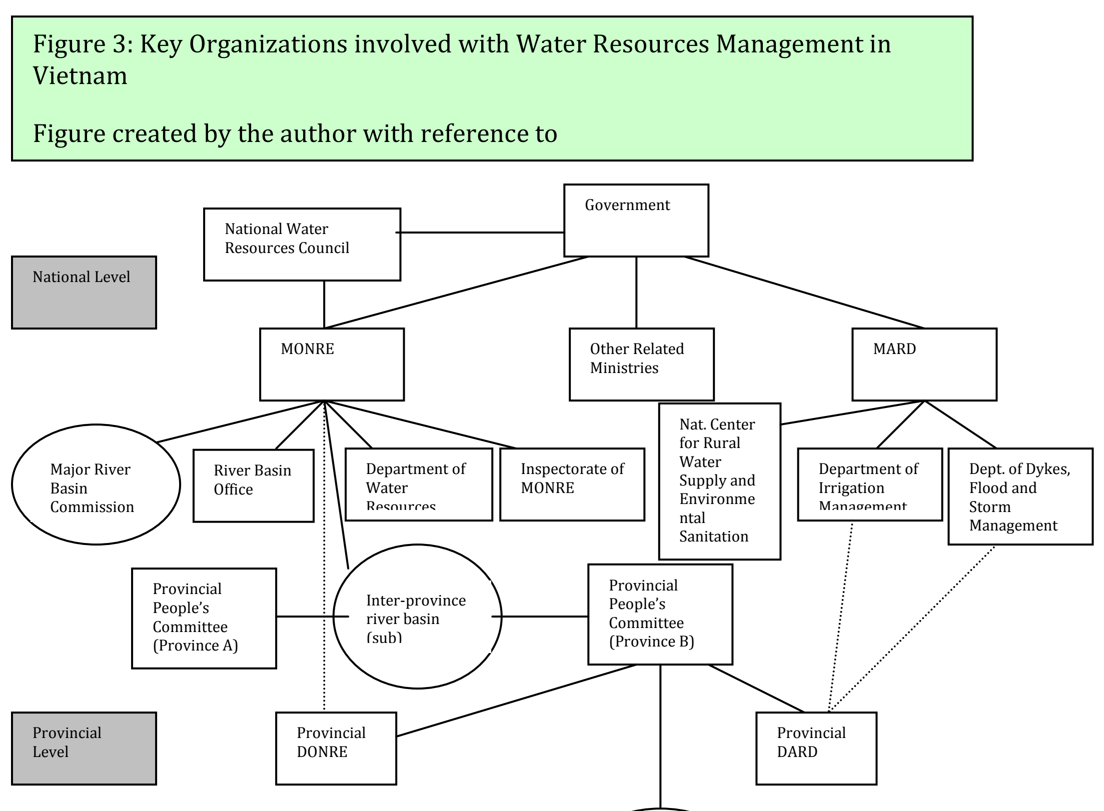
The Ministry of Natural Resources and Environment (MONRE) is a government agency responsible for the State management of land, water resources, mineral resources, geology, environment, meteorology, hydrology, as well as sea and inland areas. Since 2008, MONRE is also responsible for the river basin management and its responsibilities are defined in the decree on River Basin Management (No 120/2008/ND-CP). The Department of Water Resources Management (DWRM) is a department within MONRE, responsible for water resources management.(Nguyen 2009)

According to the decree No 120/2008/ND-CP, MONRE is responsible for managing all aspects of inter-state rivers in Vietnam. It is responsible for establishing River Basin Organizations, coordinating basic surveys of the river basin, developing detailed guidance for river basin planning, determining minimum flow, formulating plans and allocations of water resource regulation, planning for water pollution prevention, promulgating norms standards and economic targets and unit prices, appraising water allocation by different use, and settling disputes over water resources between various parties. MONRE also represents the Vietnamese Government in participation to the international river basin organizations.(Decree 120 on River Basin Management, December 2008)

The Specialized Natural Resources and Environment Inspectorate is responsible for inspecting and examining compliance with the legal requirement on river basin management. (Decree 120 on River Basin Management, December 2008) The inspectorate exists both at national and local level. At the central level, it is housed within MONRE and at the local level, at DONRE. (Nguyen 2009)

Figure 3: Key Organizations involved with Water Resources Management in Vietnam

Figure created by the author with reference to



River Basin Coordinating Organizations

The decree 120/2008/ND-CP categorizes rivers into 3 categories; a) big river basins which includes the Red, Thai Binh, Bang Giang, Ky Cung, Ma Ca, Vu Gia, Thu Bon, Ba Dong Nai and Mekong river b) inter-provincial rivers and c) intra-provincial rivers. According to the decree, river basin committees will be established for big rivers and inter-provincial rivers, and the river basin sub-committees can be set-up for inter-provincial sub-basins of big rivers. The River Basin Committee for large rivers is established by the Prime Minister, and is headed by a vice minister of MONRE, and composed of representatives of concerned ministries, branches, provincial-level People's Committee of province where a river is situated, and units managing large-scale projects extracting water resources from the basin.(Decree 120 on River Basin Management, December 2008)

Inter-provincial river basin committees or sub-committees for big river basins are established by the Minister of MONRE, and headed by the Provincial-level People's Committee in which the river basin is situated. The chairmanship rotates every 2 years for these committees, and members include MONRE, other concerned ministries and their branches, and units managing large-scale

projects extracting water resources from the basin. The Provincial level People's Committee coordinates management activities related to intra-provincial river basins. (Decree 120 on River Basin Management, December 2008)

River Basin Committees and Sub-committees coordinate implementation of river basin planning and propose the promulgation of policies and measures for water environmental protection (Decree 120 on River Basin Management, December 2008). The River Basin Office within MONRE is tasked to assist River Basin Committees for big river basins and inter-provincial river basins, in performing the tasks assigned by the Committee (Nguyen 2009; Decree 120 on River Basin Management, December 2008).

Provincial People's Committee

The Provincial People's Committee is responsible for various aspects of intra-state river basins. The PPC is responsible for formulating, approving, and implementing river basin plans, taking measures for water pollution prevention, planning for water resource regulation, publicizing the minimum-flow level of the basin, appraising plans for water resource use and plans by various sectors, settling disputes over water resource use between various parties, and reporting to MONRE concerning management of intra-provincial river basins.(Decree 120 on River Basin Management , December 2008)

At the provincial, district, and commune levels, there are sub-units of MONRE that manage tasks related to natural resources and environment including water resources, mineral resources, land, sea and inland resources. These agencies report to the relevant level of the People's Committee. At the provincial level, it is the Provincial Department of Natural Resources and Environment which reports to the Provincial People's Committee, at district level it is the District Offices of Natural Resources and Environment reporting to the District People's Committee, and at the commune level it is the Commune Authority for land & construction reporting to the Commune People's Committee.(Nguyen 2009)

Ministry of Agriculture and Rural Development

The Ministry of Agriculture and Rural Development (MARD) is responsible for irrigation, dykes, flood and storm management. At the national level, the MARD houses Water Resources Department, Department for Dyke Management and Flood and Storm Prevention and Combat, and the National Center for Clean Water and Rural Environmental Sanitation. (Decree functions, tasks, powers and, organizational structure of MARD, 3 January 2008) At the provincial, district and commune levels, its technical agencies (i.e. Provincial Department of Agriculture and Rural Development) implement decisions along with Provincial People's Committee.

4.2.1.5 Organisations and actors related to Livelihoods, Rural Development, and other relevant industrial development

Ministry of Agriculture and Rural Development

The Ministry of Agriculture and Rural Development (MARD) is the Government agency responsible for developing policy, strategy and plans related to agriculture. MARD works in the area of crop production, harvest, preservation of agricultural products, agricultural processing, livestock, veterinary, and organize quarantine activities for export and imported livestock and agricultural products. (Ministry of Agriculture and Rural Development). MARD has several technical departments which implements these activities including National Agro-Forestry-Fisheries Quality Assurance Department, Department of Plant Protection, Department of Livestock Husbandry, Department of Crop Production, Department of Animal health, and Department of Processing and trade for Agro-forestry-fishery products and salt production.(Ministry of Agriculture and Rural Development). The National Institute of Agricultural Planning and Projection (NIAPP) is a research institute within MARD, who conducts research on agriculture related resources as a basis for formulating agricultural strategy. NIAPP is a partner in LiveDiverse project. (LiveDiverse)

In Vietnam, the fishery sector is divided into marine fishery, inland fishery, and aquaculture. Marine fishery and aquaculture comprises majority of fishery production in Vietnam(Food and Agriculture Organization of the United Nations), leaving inland fishery a relatively small sector. Community co-management of fishery and aquaculture resources is an emerging practice in recent years, which is supported by the government agencies. Fishery sector used to be part of the Ministry of Fishery, but it has now merged with MARD.

The MARD is also responsible for rural development, in particular for developing strategy and plans regarding integrated rural development, poverty alleviation, rural infrastructure, migration and resettlement, and craft villages with household and cooperatives. The Department for Cooperative Economy and Rural Development under MARD works with other departments to fulfill MARD's area of responsibility (3 January 2008). At the provincial level below, the Department of Agriculture and Rural Development works with the People's Committee to achieve their objectives related to rural development.

At province level, the Department of Agriculture and Rural Development implements functions in agriculture and fishery sector, and guides district and commune level Agriculture and Rural Development/Economic Unit.

Ministry of Sports Culture and Tourism

The National Administration of Tourism was merged with the Ministry of Culture and Information in 2007 and became the Ministry of Sports Culture and Tourism. The Vietnam National Administration of Tourism (VNAT) remains as an agency of the Ministry, which has overall responsibility for the tourism sector in Vietnam. The VNAT takes leadership role and implements policy and regulation in relation to tourism, controls business planning and development in tourism sector, conducts research and training in the tourism sector. The VNAT also has three tourism training schools, as well as research institute. (Ministry of Culture Sports and Tourism) At Province level below, the Cultural Sports and Tourism Department is the technical agency implementing tourism management.

Ministry of Industry and Trade

The overall responsibility for electricity lies with the Ministry of Industry and Trade (MoIT). According to the Planning of National Electricity in the 2006-2015 period (18 July 2007), Vietnam is expecting 17-20% increase annually in electricity demand. The MoIT is responsible to direct and urge electricity investment to meet the demand, approve all the power supply development plan, regularly monitor electricity demand and supply to adjust implementation of electricity source and grid project. (Plan on National Electricity Development in 2006-2015, 18 July 2007). At the provincial level, Department of Industry is the technical agency supporting implementation of electricity related responsibility, for Provincial People's Committee.

Electricity of Vietnam (EVN)

Electricity of Vietnam was established in 1995 as a state-owned utility. EVN oversees various entities and units within its group, that are engaged in different function of utility including electricity generation, transmission and distribution. EVN with its own profit as well as external funds invests in expansion of power generation and distribution networks. (ASEAN Centre for Energy, undated) The Gam hydropower project located within Na Hang National Park is operated by EVN.

Ministry of Planning and Investment

The Ministry of Planning and Investment (MPI) has overall responsibility for developing strategy, five year and annual plans for socio-economic development, which is approved by the National Assembly. The Ministry then has responsibility to guide other Ministries, other agencies attached to Ministries, and Provincial People's Committee to develop plans which follows overall national socio-economic development.(Decree on functions, tasks, powers and organizational structure of MPI, 6 June 2003) At the provincial level, the Department of Planning and Investment is the technical agency responsible for supporting the People's Committee to develop the plan.

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4.1.2 Legal Framework

4.1.2.1 Procedural Rights: Access to Information, Participation in Decision-Making and Access to Justice

Article 50 of the Constitution states that ""[i]n the Socialist Republic of Vietnam, human rights in all respects, political, civic, economic, cultural and social are respected, find their expression in the rights of citizens and are provided for by the Constitution and the law."

Procedural rights are necessary to give full effect to substantive rights. Vietnam is party to the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and the International Convention on the Elimination of All Forms of Racial Discrimination, but has not

ratified nor signed the Convention concerning Indigenous and Tribal Peoples in Independent Countries, ILO No.169[2].

The following developments will take stock of these three procedural instruments within the Vietnamese legal framework.

Access to information

The right of access to information is acknowledged by the Constitution, but no specific law on access to information has been enacted yet. It is worth mentioning that a draft law on access to information is under consideration.

Article 69 of the Constitution states that, "[c]itizens are entitled to freedom of speech and freedom of the press; they have the right to receive information and the right of assembly, association and demonstration in accordance with the law."

Dissemination of legislation and policies is requested by some laws. For instance, the Law on forest states that, "the commune/ ward/ township People's Committee shall have to organise the forest protection legislation dissemination and education" (Art. 37.3(d)). This major task pertains to the People's Committee at all administrative levels (especially on the district and communes level) and also to the mass-organisations (Farmers' Union, Women Union, Youth Union) which, as noted in the previous section, can be found on each administrative level (from the National to the village level).

At the commune level, commune administrations (People's Committees and Peoples' Councils) are under a legal obligation to "promptly inform and publicize"[3] specific information to the people. The method of publication is also specified (e.g. posting documents at the head offices of the commune people's Committee; radio broadcasting, village meetings, documents directly sent to households, etc.)

Several exceptions can nevertheless be noted. The first one relates to the State secrets that cannot be disclosed. The second exception, as provided for in Art. 33 of the Constitution, relates to information that is deemed, "detrimental to the national interests and which undermine the fine personality, morality and way of life of the Vietnamese people."

Regarding access to information, one must also be cautious about the accessibility of the documents, not only in terms of their physical access but also in terms of the language used. This aspect needs to be carefully taken into account when it comes to minorities and their access to national and formal information. The Law on the promulgation of legal documents (2008) requires the documents to be in Vietnamese, but the translation of these documents into ethnic languages (which are put on the same level as foreign languages) is subject to a governmental decision.

[2] But Vietnam has politically acknowledged the UN Declaration on the Rights of Indigenous Peoples

[3] Article 5, Decree No. 79/2003/ND-CP of July 7, 2003 promulgating the regulations on the exercise of democracy in communes.

In addition to the rules related to access to information in general legislation, specific provisions relating to access to information in specific sectors exists. In the environmental field, the law on environmental protection defines the expression "environmental information" under Art. 2.18 as being, "figures and data about environmental components; reserves, ecological value and economic value of natural resources; impacts on the environment; wastes; degree of environmental pollution and degradation; and information about other environmental issues." Moreover, the law on Environmental protection, Art. 104.1, sets up a limited list of documents and data to be made available to the public such as environmental impact assessment reports, information on discharges sources, wastes harmful to human health, and a national environmental report published every five years. In addition, the law specifies that "information must be made public in forms easily accessible by concerned organizations and individuals"[4]. However, information classified as state secrets cannot be accessed[5].

Public access to environmental information has been broadened since 2008 pursuant to Decree 102/2008/ND-CP. Natural resources and environmental data which include land data, water resources data, mineral and geological date, environmental data, etc. must now be published on the internet, mass media and websites of the central and local governmental agencies[6]. In the water sector, access to documents related to water is provided for by the Regulation on collection, management, exploitation and use of data and information on water resource[7].

Participation in decision-making – general principles

Participation in decision-making is a cornerstone of any democracy, and improves environmental democracy. According to Art. 11 of the Vietnamese Constitution, "[c]itizens exercise their rights as masters at the grass-roots level by taking part in state and social affairs".

Despite the fact that Vietnam is a representative democracy, there is some leeway for direct democracy. In a representative democracy, parliament members, elected by the citizens, should be the voice of the people, which is expressed during the legislative process. In many representative democracies, individuals are not allowed to take part in the legislation process apart from through their representatives (members of parliament) and popular referendum.

Involvement in the legislative drafting process is an important component of the right to participation. In the case of Vietnam, the law on the promulgation of legal documents (2008) posits "the right [of individuals along with State agencies, Fatherland front…] to provide for comments on legal draft documents". The lead

[4] Article 104.2 Law on environmental protection

[5] Decision No. 212/2003/QD-TTg of October 21, 2003 on the list of State secrets classified as top secret in the field of natural resources and environment

[6] Decree 102/2008/ND-CP of September 15th 2008 on the collection, management, exploitation and use of natural resources and environmental data

[7] Decree No. 162/2003/ND-CP of December 19, 2003 promulgating the Regulation on collection, management, exploitation and use of data and information on water resource

drafting agencies/ organizations and other concerned agencies/organizations shall be responsible for […] individuals to provide comments on the draft documents and organizing the collection of comments from the direct objects of the legal documents"[8]. This provision applies regardless of the legislative area (environment, social, etc.).

Being able to make comments is one thing but the extent to which these comments are taken into consideration is another one. The law states that "[c]omments on the draft documents shall be considered and taken into account during the process of improving and finalizing the documents"[9].

A specific Decree has been enacted to organize the exercise of direct democracy in communes[10]. It mainly allocates the works to be either discussed and directly decided by the People, or discussed/commented by the people and decided by the commune administration.

Gender balance is required in decision-making. Pursuant to the law on Gender Equality, "[m]en and women are equal in participating in the state management and social activities", and they "are equal in participating in the formulation and implementation of village covenants, community regulations, agency and organization regulations"[11]. We may also assume, at least from a legal context, that minorities participation in decision-making is ensured as "[t]he State applies a policy of equality, […] among the various ethnic communities and prohibits all acts of ethnic discrimination" according to article 5 of the Constitution. The main stumbling block they could face is the accessibility of language as seen noted above.

Participation in decision-making – environmental aspects

With respect to environmental impact assessment (EIA), reports shall include opinions of the Commune People's Committee and of representatives of the population communities in the place where the project is going to take place. Not only opinions favorable to the project should be mentioned, but "opinions against the project location or against environmental protection solution must be presented"[12] in the report.

Once finished the EIA report will go through an appraisal process followed by an approval process. Both processes provide for some occasions for public participation but in a rather limited way. During the appraisal process, the involvement of individuals into the appraisal council is not mandatory and decided by the agency competent to set up the council[13]. Moreover,

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[8] Article 4.2, Law No. 17/2008/QH12 of June 3, 2008, on the promulgation of Legal documents of the National Assembly

[9] Article 4.3, Law No. 17/2008/QH12 of June 3, 2008, on the promulgation of Legal documents of the National Assembly

[10] Decree No. 79/2003/ND-CP of July 7, 2003 promulgating the regulations on the exercise of democracy in communes

[11] Articles 11.1, 11.2 Law 73/2006/QH11 of November 26, 2006 on Gender Equality

[12] Article 20.8 Law No.52/2005/QH11on Environmental Protection

[13] Article 21.2 and 21.3 Law No.52/2005/QH11on Environmental Protection

"organizations, population communities and individuals may send petitions and recommendations concerning environmental protection". This is a voluntary initiative, and no formal process of consultation is provided for, even if these petitions and recommendations "shall" be considered "before making conclusions or decisions"[14]. The same consideration is required in the approval process, in which "agencies approving the environmental impact assessment reports shall before granting approval consider complaints and recommendations made by project owners, concerned population, communities, organization and/or individuals"[15].

Participation in decision-making for conservation purposes (such as establishment of protected areas) should also be taken into account. (see 4.1.1.3).

The law on biodiversity is rather limited when it comes to participation. State policies ensure "local people's participation in the process of formulating and implementing biodiversity conservation plans"[16]. Indeed, the formulation of a national-level conservation zone requires to "collect opinions from concerned ministries and ministerial-level agencies, People's committees of all levels and inhabitants lawfully living in the planned place of the conservation zone and its adjacent area". Moreover, there is no provision regarding the participation of households or individuals in the decision-making process of the conservation zone management.

With respect to forests, "the elaboration of forest protection and development planning and plans must ensure democracy and publicity"[17]. For example, representatives of village populations in each commune participate in the elaboration of commune level forest protection and development planning and plans. But such participation is not required for national and district level plans.

Regarding river basin planning, their draft version "must be commented by […] representatives of population communities living in river basin areas before they are submitted to competent authorities for consideration and approval"[18].

Access to justice

Article 76 of the Constitution states that, "Citizens have the right to lodge with any competent State authority a complaint or denunciation regarding transgressions of the law by any State body, economic or social organisation, people's armed forces unit or any individual." We might assume that it includes the right of access to a judicial body.

Moreover, "all citizens are equal before the law" (article 52, Constitution), therefore, all citizens should be equal in having access to justice. To improve the material access to justice, a law on legal aid[19] had been enacted in 2006. Legal aid

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[14] Article 21.6 Law No.52/2005/QH11on Environmental Protection
[15] Article 22.2 Law No.52/2005/QH11on Environmental Protection
[16] Article 5.2 Law on biodiversity
[17] Article 13.4 Law on Forest Protection and Development, 2004
[18] Article 17.2 Decree No. 120/2008/ND-CP on river basin management, December 1st, 2008
[19] Law on legal aid No. 69/2006/QH11 of June 6th, 2006

is defined as the provision of "pro bono" legal services to help the beneficiaries "protect their legitimate rights and interests and improve their legal understanding as well as their sense of respect for and observance of law; to contribute to law dissemination and education, protect justice, ensure social equity and prevent and restrict disputes and violations of law". Legal aid beneficiaries are poor people, Ethnic minority people permanently residing in areas with exceptionally difficult socio-economic conditions (art.11).

No specific right of access to justice in the field of the environment is provided for. But the general right of complaint can apply to the violation of environmental legislation.

4.1.1.2 Resource Tenure and Property Rights and resource allocation

Natural resource tenure plays a key role in achieving environmental sustainability and livelihoods security through the realization of human rights. Tenure should not be understood in a narrow Western sense and limited to private property. It includes access to resources, their ownership which can be either individual or collective. Tenure is "the relationship, whether legally or customarily defined, among people as individuals or groups, with respect to land and associated natural resources. Rules of tenure define how property rights in land are to be allocated within societies. Land tenure systems determine who can use what resources for how long, and under what conditions."[20]

An important step is to distinguish between the status of the resources (land, forests, water) and the rights or entitlements that can be exercised upon them.

Legal status of the resources

The Vietnamese Constitution provides for the status of natural resources. Thus, Art. 17 indicates that "[t]he land, forests, rivers and lakes, water sources, underground natural resources, resources in the territorial waters, on the continental shelf and in the air space, [...] fall under the ownership of the entire people." By regarding the "entire people" as the owner of the resources, one needs to consider the public status of the resources.

The same provision can be found in the Land law and the Law on Water Resources, the former stipulates that the entire people are the "owner of the land" [21], and the latter that "the water resource comes under the ownership of the entire people"[22]. The State represents the people and manages the land and water resource.

Nevertheless, the switch from a centralized to a market-oriented economy from the 80's brought about some changes in the allocation of rights to use resources (especially land and forests), and gives more leeway to individuals or communities to have long-term land or forests use rights. Art. 18 of the Constitution acknowledges that the "land is allocated by the State to

[20] 1.T.4, *Multilingual thesaurus on Land tenure*/ ed. by Gerard Ciparisse, FAO, Rome, 2003.
[21] Art.5.1 Land Law No13/2003/QH11 November 26, 2003
[22] Article1.1 Law on Water Resources

organisations and individuals for stable long-term use". Legal security is ensured by the issuance of a land use right certificate[23]. Land-use rights can also be transferred pursuant to Art. 18 of the Constitution.

Use of rights, entitlement, allocation of rights

Local communities and their inhabitants cannot own (in the sense of private property) forests or agricultural land. They need to be allocated the forests or agricultural lands and benefit from rights of use. Communities need to be distinguished from individuals and households.

Moreover, two distinctive processes are laid down for the allocation of land mainly for agricultural purposes and the allocation of forests.

Agricultural land

Regarding allocation of land for agricultural purposes, the backbone of the land law is the allocation of land for a fixed period through land assignment, land lease, but no full propriety rights transfer is provided for. "Owners" benefit from rights of use. Agricultural land is allocated by the State either to individuals or to a community as a whole. The implementation of the law is comprehensively formulated under Decree No. 181/2004/ND-CP on the implementation of the Land Law.

Forests

Forests cover around 38% of the total land area in Vietnam[24]. Being under the ownership of the Vietnamese people, the State "manages and disposes" of forests. But the current management framework is not centralized any more. The State can assign or lease forests to a range of "forest owners" either on a long-term basis or on short-term contractual basis depending on the statute of the forests. But in any case, the "owner" has to return the forests to the State at the end of the term of the contract or in the case of a recovery process by the State[25].

Forests are classified in three categories: the special-use forest, the protection forests, and the production forests.

Special-use forests are mainly used for "conservation of nature, specimens of the national forest ecosystems and forest biological gene sources; scientific research; protection of historical and cultural relics as well as landscapes; in service of recreation and tourism in combination with protection"[26]. Special-use forests encompass five sub-categories: national parks, nature reserves, species-habitat

[23] Article 10.1 and article 48 Land Law No13/2003/QH11 November 26, 2003
[24]Nguyen Quang Tan, Nguyen Van Chinh and Vu Thu Hanh, *Statutory and Customary Forest Rights and their governance: the case of Vietnam*, IUCN, 2008, p.14
[25]Article 26, article 60.4 Law on Forest Protection and Development, 2004
[26] Article 4.2 Law on Forest Protection and Development, 2004

conservation zones, landscape protection zones, forests for scientific research or experimentation[27].

Protection forests are mainly used "to protect water sources and land, prevent erosion and desertification, restrict natural calamities and regulate climate, thus contributing to environmental protection"[28].

Production forests are mainly used "for production and trading of timber and non timber forest products in combination with protection, contributing to environmental protections"[29] including natural and planted production forests and seeding forests.

Different allocation processes are provided for.

Assignment of forests does not equate with a full transfer of ownership/property in the civil sense[30], as forest use rights which are attached to this assignment (the same as in the case of a lease) are defined as "the forest owners 'rights to exploit the utilities of, and enjoy yields as well as profits from the forests", but they are not entitled to sell the land or the forests; although there is a right to lease them through contracts[31].

The assignment of forest does not require providing levies (except for the assignment of production forests to economic organization and overseas Vietnamese); whereas in the case of the lease of forest an annual rent is paid. Forests are assigned by an administrative decision, although they are leased through a contract.

The Law on Forest Protection and Development prescribes a specific process for the assignment of forests to village population communities, even if the civil code does not recognize them as "subject of civil legal relationship"[32]. Nevertheless, communities benefit from almost the same rights and face the same obligations as individuals, households, or organizations. But they are not allowed to "divide forests among their members"[33]. Assignment of "Forests associated with customs and traditions of ethnic minority" should be given priority[34].

Common and differentiated rights and responsibilities follow from forest assignment and lease. Forest use rights are one of the major benefits from these processes. As a counterpart, owners have to conserve the forests and manage them in a sustainable way; they have to return the forests at the end of the assignment or lease.

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[27] Article 13 Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006
[28] Article 4.1 Law on Forest Protection and Development, 2004
[29] Article 4.3 Law on Forest Protection and Development, 2004
[30] Property is fructus, usus, abusus.
[31] Article 3.6 Law on Forest Protection and Development, 2004
[32] Nguyen Quang Tan, Nguyen Van Chinh and Vu Thu Hanh, *Statutory and Customary Forest Rights and their governance: the case of Vietnam*, IUCN, 2008, p.20
[33] Article 30.2.e Law on Forest Protection and Development,
[34] Article 19, Decree No. 23/2006/ND-CP of March 3rd, 2006 on the Implementation of the Law on Forest Protection and Development

Regarding the term of use of forests assignment and lease[35]: protection and special-use forests should be assigned for a long-term and stable management, protection and use; protection and special-use forests should be leased for not more than 50 years; and natural and planted production forests should be assigned or lease for not more than 50 years

Forest allocation system

	SPECIAL USE FORESTS			PROTECTION FORESTS	PRODUCTION FORESTS
	Strictly protected zones	Ecological restoration zones	Buffer zones		
ASSIGNMENT			Yes assignment possible to organizations, households and individuals	Yes assignment possible to organizations, households and individuals for management, protection and use	Yes assignment possible to organizations, households and individuals
LEASE	Forest environment lease to organizations and individuals are possible in national parks and natural reserves for ecotourism development (under certain conditions)(article 6.2 Regulation on management of ecotourism activities in national parks and nature reserves promulgated by Decision No. 104/2007/QD-BNN of December 27, 2007) Not more than 50 years It is not specified in which zones such a lease is allowed		Yes, lease possible to organizations, households and individuals	Yes assignment possible to organizations, households and individuals for management, protection and use	Yes, lease possible to organizations, households and individuals
SHORT-TERM CONTRACTS	Yes, in case relocation of people outside SPZ is impossible	Yes assignment is possible to local households and individuals for protection and development purposes			

Allocation of forests in Ba Be and Na Hang

In the case of Ba Be, forests have been allocated to local people. It seems that 34 households groups benefit from forest allocation (each group encompasses 10 households). The allocation of

[35] Article 23 Decree No. 23/2006/ND-CP of March 3rd, 2006 on the Implementation of the Law on Forest Protection and Development

forests in proceeded through a 5 years contract. In Ban Chan village (within Dong Puce Commune) located in the buffer zone of the national park, forests have been allocated to the community, and not to individuals.

No forest allocation for protection has been carried out so far in Na Hang despite the will of local communities and local administration. Some Production forests have been allocated to farmers, but no special-use forests nor protection forests (meeting with Na Hang Management Board 09/11/09)

The Na Hang Natural reserve covers the three types of forests, but the area of special-use forest decreases because of the dam, but remains the most important in the Reserve.

There is a clear link between land and forests, therefore, "the forest assignment, lease or recovery or the change of forest use purposes must be effected simultaneously with the land assignment, lease or recovery or change of land use purposes or grant of land-use right certificates"[36]. "The forest assignment or lease terms and limits must correspond to the land assignment or lease terms and limits prescribed by land legislation".

Water

Pursuant to Art. 1.2 of the Law on Water Resources, "organizations and individuals are entitled to exploit and use the water resource for life and production". These rights are counterbalanced by responsibility over the protection of water. Moreover, "the regulation and distribution of water resource for use purposes must be based on the planning of the river basin and the real potential of the water resource"[37]. A planning on allocation of river basin water resources needs to "identify water needs" and "establish the priority order"[38] and "water resource allocation rates in the water resource exploitation and use for daily life and other purposes, including water needs for environmental protection in case of droughts or water shortage"[39]. Regulation and distribution of water resource must also ensure the "principle of fairness, reasonability and priority in the quantity and quality of water for living"[40].

The right to use and exploit water resources covers a comprehensive list of purposes: living, agriculture, forestry, industrial production, mining, electricity generating, water transport, aquaculture, sea fishery, salt making, sport, recreation, tourism, medicine, health, scientific research[41].

Permits for the exploitation and use are required in a number of cases that are not specially listed in article 24.2. Most of the activities not requiring any permit are for domestic purposes.

4.1.2.3 Legal Framework for Natural Resource Management and Conservation

[36] Article 22.2 Law on Forest Protection and Development, 2004
[37] Article 20.1 Law on Water Resources
[38] Article 14.2 Decree No. 120/2008/ND-CP on river basin management, December 1st, 2008
[39] Article 14.3 Decree No. 120/2008/ND-CP on river basin management, December 1st, 2008
[40] Article 20.1 Law on Water Resources
[41] Article 22.1 Law on Water Resources

Vietnam has ratified almost all international environmental agreements[42], except the FAO treaty on plant genetic diversity for food and agriculture and the Convention on the Law of the Non-navigational Uses of International Watercourses. Therefore, Vietnam has to comply with their various obligations.

Principles guiding the legal framework for natural resource conservation and management

According to the Constitution, "[a]all State offices, armed forces units, economic establishments, social organizations and every citizen have to observe State regulations on the appropriate utilization of natural resources and on environmental protection" (art.26). "All acts resulting in depletion and destruction of the environment are strictly prohibited".

The law on environmental protection posits the main environmental principles leading the environmental protection. The first principle revolves around sustainable development as "environmental protection must be in harmony with economic development and assure social advancement for national sustainable development"[43]. The rights and responsibilities towards environmental protection lie within the ambit of the different components of the society. A prevention and remedy principle also guides activities.

The law on biodiversity also provides for the principles for the conservation and sustainable development of biodiversity. One of the main tenets is to harmoniously combine conservation with rational exploitation and use of biodiversity; and conservation and rational exploitation and use of biodiversity with hunger eradication and poverty alleviation[44].

The Land Law states that land use ensures "protecting the environment"[45].

The principle of ensuring "sustainable economic, social, environmental, defense and security development"[46] guides forests conservation and development activities.

Water resources legislative framework is aimed at "managing, protecting, and rationally, economically and efficiently exploiting the water resource; preventing, combating and overcoming the harmful effect caused by water with a view to ensuring water for living of the people,[…] protecting the environment

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[42] Convention on Biological Diversity (16/11/1994), Cartagena Protocol on biosafety (21/01/2004(rat), 20/04/2004 (par)), CITES (20/08/94), Convention concerning the Protection of the World Cultural and Natural Heritage (19/10/87, acceptance), International Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (acc. 25/08/98, entry into force, 23/11/98), Convention for the Safeguarding of the Intangible Cultural Heritage (20/09/2005, ratification), Convention on the Protection and Promotion of the Diversity of Cultural Expressions (07/08/2007, ratification), United Nations Framework Convention on Climate Change (entry into force 14/02/95); Kyoto Protocol (entry into force 16/02/05), Convention on Wetlands of International Importance (Ramsar Convention) (20/01/1989, accession)

[43] Article 4.1 Law on Environmental Protection

[44] Article 4.2 Law on Biodiversity

[45] Article 11.2

[46] Article 9.1 Law on Forest Protection and Development, 2004

and serving the sustainable development of the country"[47]. It is guided by a river basin approach and an integrated approach in the protection, use and exploitation of water resources[48].

Biodiversity and protected areas legal framework

Vietnam does not have any specific protected areas legislation/law. The legal backbone of protected areas in Vietnam can be found in:

- the forest legislation (2004): Even if protected areas could only be settled within special-use forests, the provisions of the law on forest adopt quite a broad definition of "special-use forest". Indeed, the provisions regarding the different protected areas categories do not limit these categories to forests as natural habitats/area on mainland or in submerged land area or island areas can also be protected[49].
- the law on fisheries for inland protected areas and marine parks[50] (2003),
- a decree and a circular putting forward the three categories to protect wetlands: wetlands benefit from a special conservation regime, with three categories (Ramsar reserve/zone, nature reserve/zone and species or biotope reserve/zone)[51] according to certain criteria.
- a broad/umbrella article in the Law on Environmental protection (2005)[52]: Article 29.1 states that "Zones and ecosystems of national or international biodiversity value must be inventoried, assessed and planned for protection in the forms of marine conservation zones, national parks, nature reserves, biosphere reserves or species-biotope conservation zones". Article 29.2 itemizes the grounds for establishing conservation zones.

The recent Law on biodiversity lays down the legal foundation of a broad system of protected areas or "nature conservation zones"[53] as stipulated in the law, clearly not limited to the forest ecosystem but extended to any natural ecosystem. As such, it clarifies/ streamlines the Vietnamese environmental legal system regarding protected areas. This new law which came into force on July 1st, 2009, also allows Vietnam to comply with its international commitments

[47] Article 4.1 Law on Water Resource
[48] Articles 5.1, 5.2 Law on Water Resource
[49] Article 13, Law on Forest Protection and Development, 2004
[50] Article 9, Fisheries Law 17/2003
[51] Article 12, Decree No. 109/2003/ND-CP of September 23, 2003 on the conservation and sustainable development of submerged areas. The decree is specified by Circular No. 18/2004/TT-BTNMT of August 23, 2003 guiding the implementation of the Government's Decree No. 109/2003/ND-CP on the conservation and sustainable development of submerged areas
[52] Law on environmental protection
[53] Article 3.12 Nature conservation zone are defined as " geographical area that has fixed boundaries and functional sections for biodiversity conservation", Law on biodiversity

with respect to the Convention on biological diversity. The law on Environmental protection only had one general article relating to biodiversity protection.

By changing the legal basis to establish protected areas (from the law on forests to the law on biodiversity), one can also guess a change in the Ministry in charge of establishing and managing the new protected areas. Under the law on development of forest, special-use forests being protected areas, are established and managed by MARD[54] even if it shall coordinate with the Ministry of the Environment. However, according to the law on biodiversity, "the Ministry of Natural resources and Environment shall take responsibility for performing the state management of biodiversity"[55].

Moreover, one may wonder about the legal basis for future protected areas which are special-use forests. Will they be established under the Law on forest or under the law on biodiversity? The principle of specialized law should make the law on forest prevail. But the transitional provisions of the law on biodiversity state that protected areas set up under the law on forest or the law on fisheries should not be reestablished if they satisfy with the requirements of the law on biodiversity[56]. Conversely, if these protected areas don not satisfy the requirements, they would need to be established according to this new law.

Protected areas are divided into 4 categories that existed previously of the law on biodiversity in the law on Forest: they comprise national parks, nature reserves, wildlife reserve or species-habitat conservation zones, and landscape protection zones. Specific criteria are attached to each category (see table below)

Conservation area categories / **Criteria (according to the law on Biodiversity)**	**National parks** (cumulative criteria)	**Natural reserves** (national or provincial)	**Wildlife reserves** (national or provincial)	**Landscape conservation zones** (cumulative criteria)
Possessing a natural ecosystem which is nationally or internationally important, specific to or representative of a natural eco-region	Yes	Yes		
Having a particular ecosystem				Yes
Being a permanent or seasonal natural habitats of at least one species on the list of endangered precious and rare species prioritized for protection	yes		yes	
Having special scientific and educational	yes	Yes (alternative	yes	yes

[54] Article 16 "Order of, procedures for the establishment of protection forests and special-use forests under the Prime Minister's competence"; article 58 states that "the Ministry of Agriculture and Rural Development shall assume prime responsibility for, and coordinate with the Ministry of Natural Resources and the Environment […] in defining areas and boundaries of forests of all kinds […]", Decree No. 23/2006/ND-CP of March 3rd, 2006 on the Implementation of the Law on Forest Protection and Development.

[55] Article 6.2 Law on biodiversity

[56] Article 76.1, Law on biodiversity

values		criteria)		
Having landscape and unique natural beauty of ecotourism value	yes			Yes
Having ecotourism and recreational values		Yes (alternative criteria)		yes

Table based on Arts. 16 to 20, Law on biodiversity

The law on biodiversity also provides for the zoning of protected areas. This zoning was already prescribed for special-use forests[57]. The legal acknowledgement of zoning within protected areas gives stronger protection[58]. Each area can be divided into 3 zones: strictly protected zones, ecological restoration zones and service-administrative zone[59] depending of the level of activities allowed.

- Strictly-protected zones are “zones large enough for intact protection of natural ecosystems such as the national standard ecological samples, which shall be strictly protected to oversee the natural development of forests and ecosystems”[60],
- Ecological restoration zones are “strictly-managed and protected zones for restoration of forest ecosystems through performance of some necessary bio-forestry activities”[61],
- Service administrative zones are “areas for construction of working offices and facilities for routine activities of management boards, research and experimentation institutions, and for tourist, recreational and entertainment activities”[62].

Moreover, a buffer zone can surround the protected areas with the aim of preventing and reducing negative impacts from outside[63]. Actually, the forest

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[57] Article 49.2 Law on Forest Protection and Development, 2004

[58] LAUSCHE (Barbara), *Guidelines for Protected Areas legislation*, Part III, chapter 1, Generic elements for protected areas legislation, point 6.2, IUCN, 2010 (draft, unpublished)

[59] Article 26.2 Law on biodiversity
Article 14 Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

[60] Article 14.1.a Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

[61] Article 14.1.b Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

[62] Article 14.1.c Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

[63] Article 5.30 Law on biodiversity defines a buffer zone as “the area surrounding and adjacent to a conservation zone, having the function of preventing and reducing negative impacts from outside on the conservation zone”. Article 24.3 Decision No. 186/2006/QD-TTg of August 14, 2006 promulgating the Regulation on forest management. . “prevent or reduce the human’s encroachment

legislation makes buffer zones mandatory for national parks and nature conservation zones[64].

The law provides for the process of protected areas establishment either on the national or at the provincial level. Despite the importance of participation in this process, the law only requires to "collect the opinions from […] inhabitants lawfully living in the planned place of the conservation zone and its adjacent area" without specifying the level of participation or the scope of taken into account these opinions. The participation process is of utmost importance as the establishment of a protected area can result in the exclusion of people from it[65].

Creation of protected areas has usually been tantamount/ a byword for to exclusion of local communities in all part of the world.

In Vietnam, as a general principle, people living in the strictly protected zones of special-use forests are to be relocated outside of it. However, an exception applies if the relocation is impossible: organizations or individuals can be assigned special-use forests "on the basis of short-term package contracts for forest protection"[66]. There is no national process or regulations with respect to displacement and resettlement of people from protected areas (it is also the case for relocation due to development projects see Na Hang dam project). As a general prohibition, people cannot be relocated within special-use forests.

Even if the law on biodiversity is to be well-equipped, the implementation of several provisions will require subsequent regulations. (ex: conservation zone classification criteria to be specified, art. 16.4; regulation on management of conservation zones art. 27.2; regulation on management of buffer zones, art. 32.2; implementation of art.30 regarding responsibilities and obligations of households and individuals lawfully living in conservation zones shall be specified).

Acts of hunting, trapping or catching wild animals in special-use forests being national parks or nature conservation are prohibited[67] except in some cases[68]. Such a prohibition is circumscribed to animals on the list of endangered, precious and rare forest animals, applies in protection and production forests. Moreover in the strictly protected zones, a number of activities are prohibited[69].

Regarding the exploitation of forest products (non timber forest products)

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[64] Article 24.1 Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006. The buffer zone is defined as "the forest area, land area or water surface land area bordering on a special-use forest that has the effect of preventing, reducing the encroachment upon that special-use forest".(article 3.15)

[65] Article 21 specifies that the establishment project should content a scheme on settlement or relocation of households and individuals from the planned place of the conservation zone.

[66] Article 54 Law on Forest Protection and Development, 2004

[67] Article 12 Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

[68] Exceptions are provided by decree No. 32/2006/ND-CP of March 30, 2006 on Management of Endangered, Precious and Rare Forest Plants and Animals.

[69] Article 18 Regulation on forest management promulgated by Decision No. 186/2006/QD-TTg of August 14, 2006

- In special-use forests:
    - In landscape protection areas and service administrative zones of national parks and nature conservation zones, it is allowed to "exploit dead or fell trees, non-timber forests plants except endangered, precious and rare forest plant species"[70]
    - Conversely, in strictly protected zone and ecological restoration zone of national parks and nature conservation areas, this exploitation is prohibited.
- In the case of protection forests, the exploitation of non timber forest products is allowed under certain conditions[71]

Protection of special-used forests being national parks or conservation areas is ensured by forest rangers.

The law on biodiversity requires that "organizations and individuals that benefit from biodiversity exploitation and use shall share their benefits with concerned parties"[72]. The rights of households and individuals living lawfully in conservation zones, encompass the "right to participate in and benefit from business and service activities in conservation zones". Conversely, organizations and individuals carrying out activities in the protected area have the right to "access genetic resources and share the benefits from such access"[73]. One of the major innovations of the law on biodiversity is to create a new regime with respect to the management of genetic resources, their access and the benefit-sharing following from[74].

"Local communities may [also] participate in and benefit from ecotourism activities in order to raise their incomes […]"[75]. Participation of local communities should be prioritized by the organizations or individuals involved in ecotourism activities (e.g.: in the recruitment). But mainly the role of local communities is more related to keeping or even restoring their traditions, folklore, handicrafts for tourism purposes[76]. The forest conservation lease is only open to organizations and individuals but not to local communities per se.

Water Resources legal framework

The Water Resources legal framework comes under a specific legislation on water resources (protection, use and exploitation) but provisions of the Law on

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[70] Article 51 , Law on Forest Protection and Development, 2004
[71] Article 47.2 , Law on Forest Protection and Development, 2004
[72] Article 4.4 Law on biodiversity
[73] Article 31 and 32, Law on Biodiversity
[74] Chapter V, Section 1, Law on Biodiversity
[75] Article 4.3 Decision No. 104/2007/QD-BNN of December 27, 2007 promulgating the regulation on management of ecotourism activities in national parks and nature reserves
[76] Article 7.3.b,c. Decision No. 104/2007/QD-BNN of December 27, 2007 promulgating the regulation on management of ecotourism activities in national parks and nature reserves

Environment protection supplement this legislation by focusing on the environmental protection.

The national legal framework for water resources relates to the protection of water resource, the exploitation and use of water resource, prevention and management of floods and other harmful effects of water.

The protection of water resources "must be linked with the protection and development of forests and the reproductive capability of the water source [...] the prevention and combat against pollution of water source and the exploitation and integrated use of water source in an economical, safe and effective manner"[77]. Moreover, "river water environment protection shall constitute one of the fundamental contents of the planning of exploitation, use and management of water resources in river basin" [78].

4.1.1.4 Ethnic minority rights

As a general obligation, "[t]he State applies a policy of equality, solidarity and mutual support among the various ethnic communities and prohibits all acts of ethnic discrimination and division. The various ethnic communities have the right to use their own language and writing, to preserve their ethnic identity and to nurture their fine customs, traditions and cultures.[79]"

Provisions related to ethnic minorities are scattered amongst different legislation, but there is no specific legislation pertaining to the protection or rights of ethnic minorities in Vietnam. For example, in the forest legislation (see forest assignment), in the legislation related to ecotourism. Ethnic minorities benefit from many policies and programs specifically targeted to them.

[77] Article 5.2 Law on Water Resource
[78] Article 59.1 Law on environmental protection
[79] Article 5 Constitution

4.2 THE GREATER KRUGER AREA, SOUTH AFRICA

4.2.1 Institutions and Actors

4.2.1.1 Introduction

This section aims to describe key organizations and actors related to biodiversity and livelihoods within the Greater Kruger Area. First, it provides an overview of the South African government system, followed by a description of key organizations and actors.

4.2.1.2 The South African Government System

South Africa has a federal system of government which consists of national, provincial and local spheres of governments. In addition, the Constitution formally recognizes the role of traditional leadership in society, and the system allows traditional leaders and customary law to be used as a way to govern the society. The key principle of the government system is 'cooperation' among national, provincial, local government, and traditional leaders. (Constitution of the Republic of South Africa, 18 December 1996) The figure 4 illustrates key components of South African government system.

Legislative authority at the national level lies in the Parliament, which is composed of the National Assembly (lower house) and the National Council of Provinces (upper house). The National Assembly represents people and its members are elected through general election, with a total number of 350-400 members. The National Council of Provinces represents provinces, to ensure that provincial interests are taken into account for national matters. Each province has a delegation consisting of 10 delegates who will be the member of the National Council of Provinces. The national executive authority is vested in the President, who exercises its authority with members of the Cabinet. The President is elected by the National Assembly from among its members, and the President appoints Cabinet members which includes a Deputy President and Ministers. (Constitution of the Republic of South Africa, 18 December 1996)

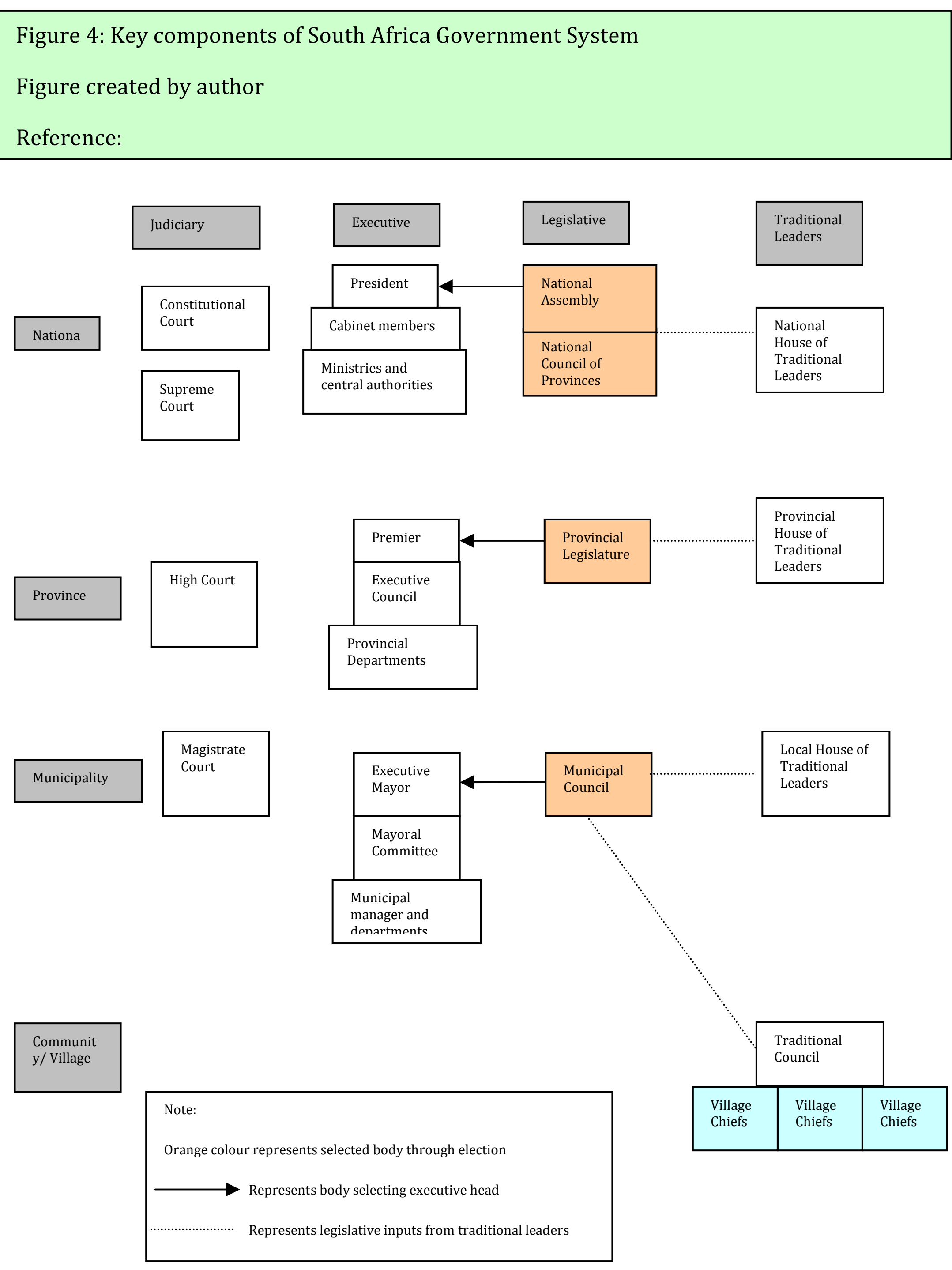
There are 9 provinces in South Africa. The legislative authority of a province is vested in its Provincial Legislature, which has power to pass a constitution for the respective province. The provincial legislature is composed of 30-80 elected members depending on the province. The Constitution includes a list of function areas legislated by both national and provincial legislature (concurrent list, listed under Schedule 4 of the Constitution) and areas of exclusive provincial legislative competence (listed under Schedule 5 of the Constitution). The concurrent list includes subjects such as administration of indigenous forests, environment, indigenous law, customary law and traditional leadership, nature conservation excluding national parks, national botanical gardens and marine resources, regional planning and development, water and sanitation (limited to potable water supply systems and domestic waste-water and swage disposal systems). The provincial list under the Schedule 5 includes issues such as provincial planning, provincial cultural matters, municipal parks and recreation. The provincial executive authority is vested in the Premier of respective

provinces, who exercises authority with other members of the Executive Council. The Premier is elected by the Provincial Legislature from its members. The Executive Council of a province consists of 5 to 10 members. The Premier appoints the Executive amongst the members of the Provincial Legislature. (18 December 1996)

Figure 4: Key components of South Africa Government System

Figure created by author

Reference:



The local level administration body is a municipality, and currently there are 283 municipalities within South Africa (Government Communication and Information System (GCIS), undated). There are 3 categories of municipalities including: category a) metropolitan municipality which has exclusive municipal executive and legislative authority in its area; category b) local municipality which shares municipal executive and legislative authority in its area with district municipality within those area it falls; and category c) district municipality which has municipal executive and legislative authority in an area that includes more than one municipality. (Constitution of the Republic of South Africa, 18 December 1996).

The Municipal Council has both executive and legislative authorities. The Municipal Council members are elected by voting through both proportional representation and the first-past-the-post (Westminster) system (Independent Electoral Commission, undated). The Executive Mayor has the executive power delegated by the Municipal Council, and several directorates within the municipal government work on issues which executive responsibilities reside at the municipal level. They include Integrated Development Planning, water and electricity supply, solid waste and sewage, municipal roads, regulation of passenger transport services, fire fighting, promotion of local tourism, tax and levies collection for services provided by the municipality. (Vhembe District Municipality, 2008)

The judicial authority is vested in courts. The Constitutional Court is the highest court in all constitutional matters, whereas the Supreme Court of Appeal is the highest court of appeal except in constitutional matters. (Constitution of the Republic of South Africa, 18 December 1996) The next lower level of court of appeal is the High Court, and there are 10 High Court divisions within South Africa. The Magistrate Court exists at local level.(Government Communication and Information System (GCIS), undated)

The South African Constitution recognizes the role of traditional leadership according to the customary law. The Constitution allows courts to apply customary law whenever applicable, and defines the role of traditional leadership as "an institution at local level on matters affecting local communities" (Constitution of the Republic of South Africa, 18 December 1996). As a mechanism to facilitate use of traditional system, the House of Traditional Leaders are established at national, provincial and local level, while traditional councils exist at community level (Government Communication and Information System (GCIS), undated ; Traditional Leadership and Governance Framework Amendment Act,19 December 2003).

The National House of Traditional Leaders (formerly called Council of Traditional Leaders) was established in 1997, and aims to promote the role of traditional leadership at national and Constitutional levels (Government Communication and Information System (GCIS), undated). It is the statutory body established by the National House of Traditional Leaders Act, 1997. There are 18 members who are elected among the six Provincial Houses of Traditional Leaders. The main duties include advising the national government on matters

related to traditional leadership, the role of traditional leaders, customary law, and customs of communities observing a system of customary law. It also investigates and provides information related to traditional leadership, traditional authorities, customary law and customs (Ginger, 2009).

The Provincial Houses of Traditional Leaders are established in all six provinces that have traditional leaders, with purpose of enhancing collaboration with provincial government (Government Communication and Information System (GCIS), undated). The election of members depends on applicable provincial legislations. In Mpumalanga province, for instance, the members of the Provincial House of Traditional Leaders are elected by an Electoral College, which consists of all officially appointed traditional leaders who live in the Mpumalanga province. In Kwazulu-Natal province, the Provincial House consists of the *Silo* (monarch for the Province of Kwazulu-Natal) and his/her nominee, as well as a minimum of three and a maximum of seven members elected from each Local House of Traditional Leaders. A Local House of Traditional Leaders is established in the areas of district municipalities where there are five or more traditional communities (Kwazulu-Natal Traditional Leadership and Governance Act, 2005).

The Local House of Traditional Leaders are established to deepen the relationships between municipalities and traditional leaders on customary law and development initiatives(Government Communication and Information System (GCIS), undated). It is established within district or metropolitan municipalities where more than one senior traditional leadership exists. Members are elected by an electoral college which comprises of kings, queens, senior traditional leaders living in the district or metropolitan municipality.(19 December 2003) The main functions include: advising the municipality on matters related to customary law, customs, traditional leadership and communities; developing by-laws which impact traditional communities; and developing and participating in programmes and frameworks which impact on traditional communities (Traditional Leadership and Governance Framework Amendment Act 2003, 19 December 2003). One way to integrate traditional leaders into the municipal governance is through membership of the Municipal Council. For instance, in Mopani district municipality, 9 out of 44 Municipal Council members are traditional leaders, whereas the Vhembe district municipality designated 2 traditional leaders as part of their Municipal Council which consists of 54 members (Mopani District Municipality 2007; Vhembe District Municipality 2008).

At the community level, all the communities recognized as "traditional" by the Premier of the Province, have to establish Traditional Councils. A Traditional Council is comprised of no more than 30 persons, and at least one third of its members have to be women. It is comprised of a) traditional leaders selected by the community and their leaders, according to their respective custom and b) democratically elected leaders for a term of 5 years. Democratically elected leaders (category b above) need to constitute more than 40% of the Council members. The Council participates in the development of legislation and policy at local level, administrative affairs of the traditional community according to its customs and tradition, and promotes indigenous knowledge systems for

sustainable development. As a way to be in partnership with municipalities, traditional councils may enter into service delivery agreements with municipalities .(Traditional Leadership and Governance Framework Amendment Act 2003, 19 December 2003; Ginger 2009)

The Cabinet approved a proposal in 2008 to establish the National Department for Traditional Leadership within the Ministry of Provincial and Local Government. The department is expected to be established and in operational by 2010/11 financial year. (Government Communication and Information System (GCIS), undated)

4.2.1.3 Organisations and Actors in Biodiversity

In South Africa, the legislative and the executive responsibilities for environment and nature conservation fall under both national and provincial levels of government, except for national parks, national botanical gardens and marine resources. Municipal parks are legislated by provincial government, and management execution takes place at the municipal level. Figure 5 illustrates key organization related to the management of protected areas (Schedule 4 & 5 of constitution) (Constitution of the Republic of South Africa, 18 December 1996).

National Level

Ministry of Water and Environmental Affairs

The Ministry of Water and Environmental Affairs is the national government agency responsible for biodiversity conservation. The Department of Environmental Affairs, which is under the ministry, takes responsibility for the management of Protected Areas and Transfrontier Conservation areas. (Department of Environmental Affairs, undated). While management of the national parks are assigned to the South African National Parks (SANParks), the Department of Environmental Affairs is responsible for monitoring the management of biodiversity within protected areas.

South African National Parks

The South African National Parks (SANParks) is a parastatal organization, which is responsible for development and management of the South African system of national parks. Its board makes decisions for the performance of the functions of the SANParks. The board members are appointed by the Minister of Water and Environment for the term of 3 years. (Ginger 2009; National Environmental Management: Protected Areas Act (57 of 2003) as amended by the National Environmental Management: Protected Areas Amendment Act (31 of 2004), Assented to 11 February 2004)

South African National Biodiversity Institute

South African National Biodiversity Institute (SANBI) was established in September 2004 through the Biodiversity Act (No 10 of 2004). It is a national level statute body under the Ministry of Water and Environmental Affairs. It has a mandate to monitor and report to the Ministry on status of biodiversity,

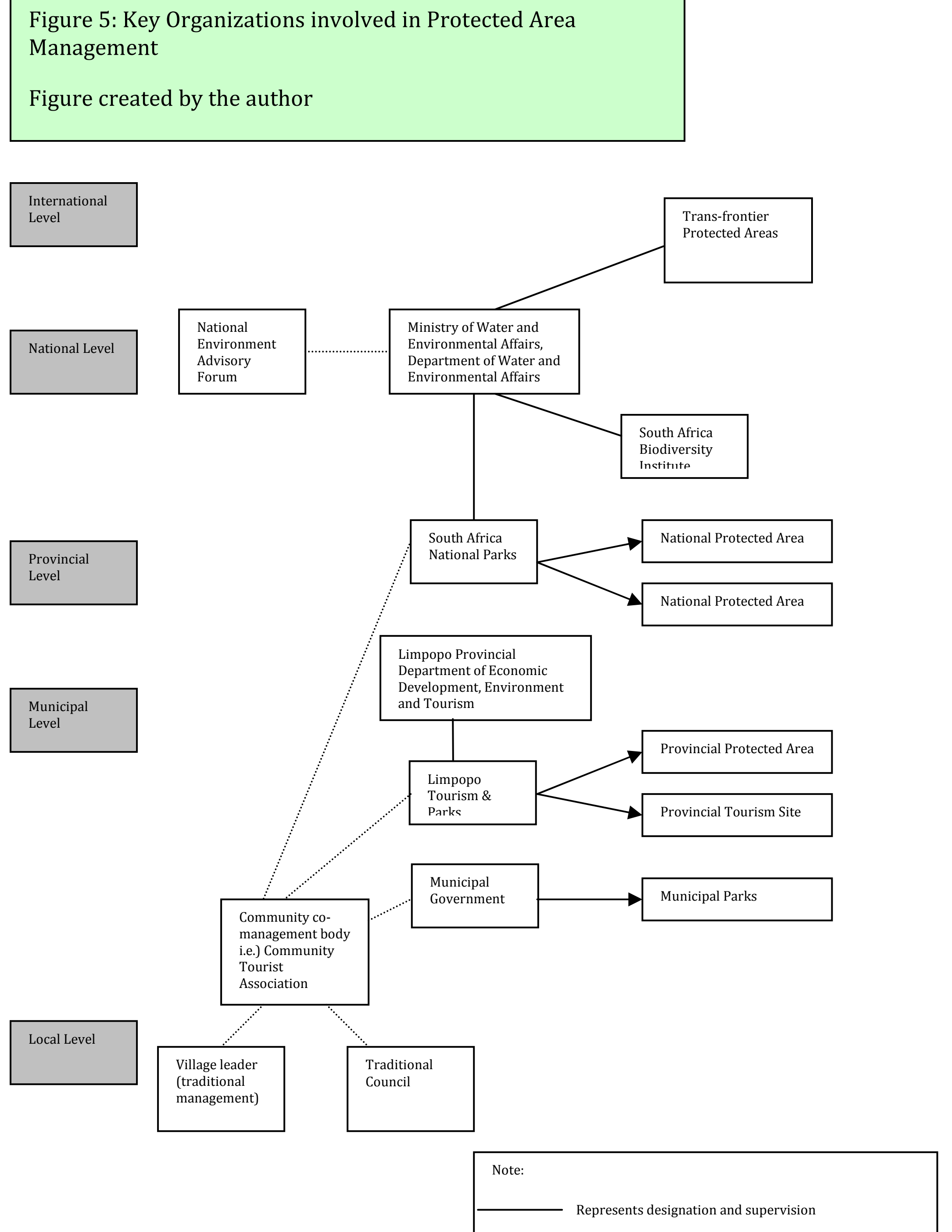
conduct research on biodiversity, advice the Ministry on declaration and management of national parks, and coordinate and implement programmes on ecosystem rehabilitation. The SANBI also has a mandate to collect all the species of plants, animals and micro-organisms, and regularly monitors the status of genetically modified organisms within the country. Formally being the National Botanic Institute, the SAMBI also manages and maintains all the national botanical gardens (South African National Biodiversity Institute, undated ; National Environmental Management: Biodiversity Act 2004, 7 June 2004).

National Environmental Advisory Forum

The National Environmental Advisory Forum was set up by the National Environmental Management Act, 1998. It is mandated to advise the Ministry on matters related to environmental management and governance. The Forum has 12-15 members, who are selected from key stakeholder and civil society groups, and are appointed by the Ministry of Water and Environmental Affairs. (Ginger 2009)

Figure 5: Key Organizations involved in Protected Area Management

Figure created by the author



The Committee for Environmental Co-ordination

The Committee for Environmental Co-ordination (CEC) was established by the National Environmental Management Act, in order to promote integration and coordination on environmental matters by the different state bodies. In particular, it aims to promote the achievement of the purpose and objectives of

environmental management and environmental implementation plans. The committee is made up of the Director General of the Department of Environmental Affairs and the Directors General of those national departments that conduct activities relevant to the environment, and Heads of Department of provincial environmental departments. It also has a member of the South African Local Government Association (SALGA). There are several sub-committees that have been established to assist the CEC to perform its function. They focus on biodiversity, law reform, environmental management plans and implementation plans. The CEC Sub-committee on Law Reform has the aim of developing a coherent regulatory framework for environmental management at all levels of government (Fakier, Stepehens et al. 2005; .

Provincial Level

Provincial Government

The provincial government has legislative and executive responsibilities over environmental issues and provincial protected areas. Its responsibilities for environmental issues are shared with the national government.(Constitution of the Republic of South Africa, 18 December 1996) According to the Protected Area Law, the Members of Executive Council at the provincial level, can assign responsibility for the management of provincial protected areas to an individual, organization, or the provincial government departments. (National Environmental Management: Protected Areas Act (57 of 2003) as amended by the National Environmental Management: Protected Areas Amendment Act (31 of 2004), Assented to 11 February 2004) In the case of the Limpopo province, the Provincial Department of Economic, Environment and Tourism is responsible for provincial protected areas, and delegates the management to the Limpopo Tourism Parks Board. (Centre for Water Law Policy and Science 2010)

Limpopo Tourism and Parks Board

The Limpopo Tourism and Parks Board was established through the Northern Province Tourism and Parks Board Act 8 of 2001. The key mandate of the Board is to promote, foster and develop tourism in the province. The mission of the Limpopo Tourism and Parks Board includes encouraging and facilitating the development and promotion of tourism in Limpopo in a holistic way; encouraging public participation in the tourism industry; ensuring equal access of people to the social, economic and environmental opportunities and benefits the tourism industry may create; facilitating community empowerment as an important part of tourism development; ensuring the effective development, promotion, management and conservation of nature reserves and protected areas; and facilitating hospitality management in the Limpopo Province (Limpopo Tourism & Parks Board, undated). The Board manages provincial government owned nature reserves. Also, the Board manages tourism programmes in key tourist destinations within the province including, Lake Funduzi, Limpopo Valley, the Limpopo-Shashe Transfrontier Park, Upper Lebata area, The Western Soutpansberg, the Wateberg Biosphere Region, The Bela-Bela

and Dinokeng areas. The board aims to facilitate community empowerment as an essential part of tourism development (Limpopo Business 2007).

Limpopo Province, Environmental Advisory Body

The Environmental Advisory Body at Limpopo province was established in 2007, based on the Limpopo Environmental Management Act 2003, with the purpose of engaging public opinions in environmental issues, and advising the Member of Executive Councils. Twelve members were appointed by the Member of Executive Council. (Chapter 2 of the Act)(Department of Economic Development Environment and Tourism: Limpopo Provincial Government 4 June 2007; Limpopo Environmental Management Act, 2003).

Ministerial Technical Committee (MINTEC

The Ministerial Technical Committee (MINTEC) is a structure to facilitate coordination between national and provincial level environmental departments. Several working groups have been set up to discuss issues on biodiversity and heritage, impact management, pollution and waste management and planning and reporting (Fakier, Stepehens et al. 2005) .

Municipal and Community level

Municipal Government

The Municipal government has responsibility for cooperation with national and provincial government, and is responsible for the implementation of environmental policies, plans, and programmes. It is also responsible for ensuring local Integrated Development Plans incorporate environmental plans and principles of National Environmental Management Act. (Fakier, Stepehens et al. 2005). The Municipal government also has responsibility over the management of municipal parks.(18 December 1996) According to the background research for the South Africa Environment Outlook report in 2005, environmental management at the local level government is facing challenges, partly due to a lack of understanding over the responsibility between provincial and local government spheres. (Fakier, Stepehens et al. 2005)

Local Communities and Co-management body

The Protected Area Act allows management bodies of protected areas, to enter into a co-management arrangements with local communities (National Environmental Management: Protected Areas Act (57 of 2003) as amended by the National Environmental Management: Protected Areas Amendment Act (31 of 2004), Assented to 11 February 2004). In the case of Makuya provincial nature park which is located within the LiveDiverse case study area, the Community Tourist Association which is composed of village representatives was established as a mechanism for community participation in the management of the park. In Makuya, some of the decisions such as allocation of income through park royalties, is decided by the village chief, in consultation with the Community Tourist Association and the Traditional Council. (Centre for Water Law Policy and Science 2010)

4.2.1.4 Organisations and Actors in River basin and water resources management

Functional responsibility for water resources and river basin management lies within the national government sphere, except for water sanitation services (limited to potable water supply systems and domestic waste-water and sewage disposal system). The legislative power for water sanitation services lies with both national and provincial governments, whereas the executive function lies at the municipal level. (Article 156, Constitution) (Constitution of the Republic of South Africa, 18 December 1996). The figure 6 illustrates key organizations involved in water resources management in South Africa.

International level

South Africa has several river basins that runs across different countries. The Ministry of Water and Environment Affairs establishes bodies to implement international agreements. The governance and power of these bodies are determined by the Minister, in accordance with relevant international agreements (Water Services Act, 19 December 1997).

The Limpopo River is shared between Botswana, Mozambique, South Africa, and Zimbabwe. There has been an attempt to create bilateral and tri-party agreements to manage this international watercourse starting from 1926 when a bilateral agreement was made between colonial nation Portugal and South Africa. The first bilateral agreement between South Africa and Botswana was signed in 1967. It was not until 1986 that all four riparian States signed a multilateral agreement to establish Limpopo Basin Permanent Technical Committee (LBPTC). The LBPTC was mandated to provide advice on common issues related to the use of the river, in order to improve water quality and quantity. However, the LBPTC did not function for the following ten years, primarily due to political reasons. In 1995, the four States created the Limpopo River Basin Commission (LRC), which was then re-established as its current form of Limpopo Watercourse Commission (LIMCOM). (Amaral and Sommerhalder 2004)

The Incomati River Basin is an international river basin, which covers area of 47,000 km^2 shared among Mozambique, South Africa, and Swaziland. South Africa occupies the 63% of the basin area. The first agreement for the water use in the river basin was signed between South Africa and Portugal in 1964. In the recent years, the Tripartite Interim Agreement on Water Sharing of the Maputo and Incomati was signed among three countries sharing the river basin in August 2002 .

National level

<u>Ministry of Water and Environment Affairs</u>

The overall executive authority for water resources lies under the Minister of Water and Environmental Affairs (Department of Water Affairs). Prior to July 2009, it was under the Minister of Water Affairs and Forestry (1 July 2009). The

Department of Water Affairs within the ministry takes responsibility for water resources management.

Water Research Commission

The Water Research Commission (WRC) is a national level public entity reporting to the Ministry of Water and Environmental Affairs. The WRC promotes, coordinates, and funds research in the area of water resources, and also sets priority from a national perspective. Current strategic research area includes water resources management, water-linked ecosystems, water use and waste management, water use in agriculture, and water-centered knowledge (Department of Water Affairs 2009). Funds for the WRC are generated from levies on water usage (Kundell 17 November 2008).

Water Tribunal

The Water Tribunal is an independent body, which was established in 1998. The main function of the Water Tribunal is to hear appeals against directives and decisions made by responsible authorities and agencies related to water resources management. The Tribunal receives administrative support from the Department of Water Affairs, and its members are recommended by the Water Research Commission and the Judicial Services Commission (Department of Water Affairs and Forestry).

Regional/catchment level

Water Boards

Water Boards are financially independent public entities reporting to the Minister of Water and Environmental Affairs. Water Boards operate as potable water service providers. Currently, there are 15 Water Boards within the country (Department of Water Affairs and Forestry 2009; Department of Water Affairs 2009).

Figure 6: Key Organizations involved with Water Resources Management in South Africa.

Figure created by author

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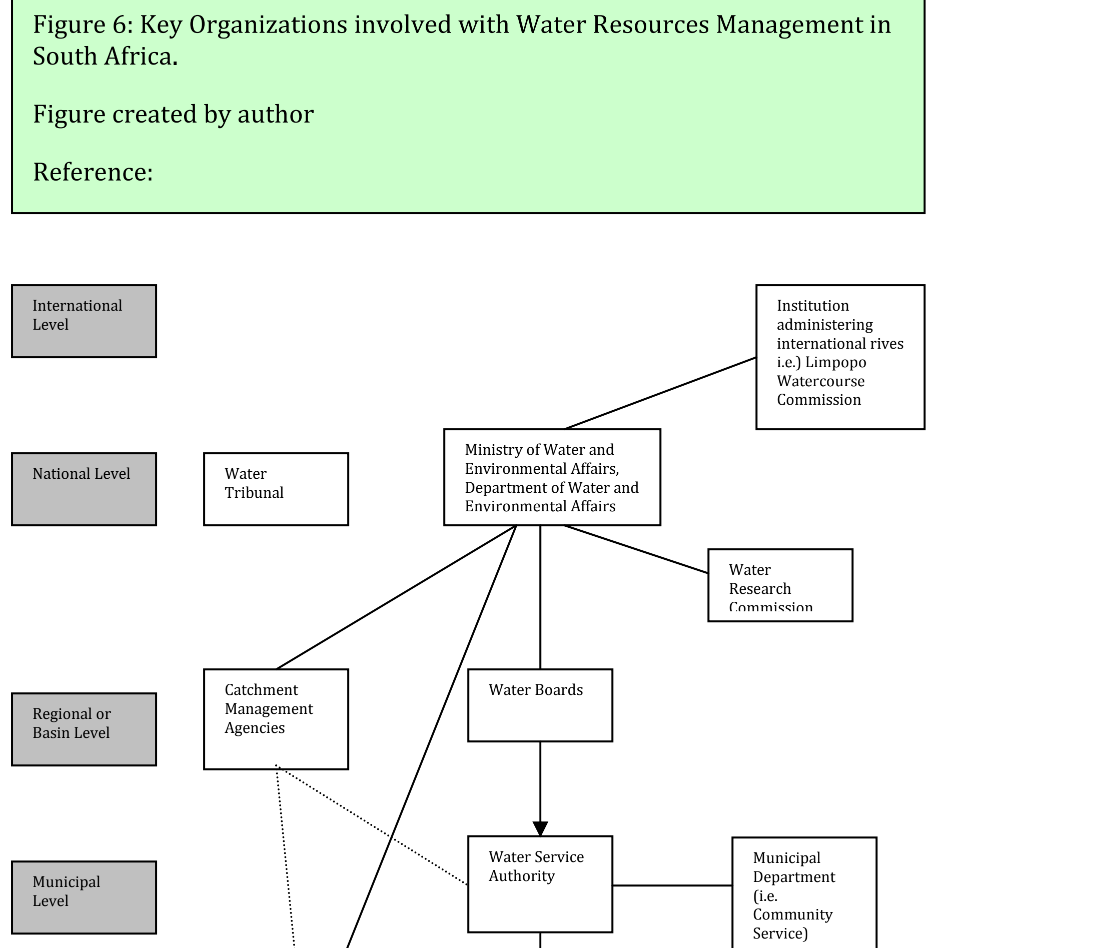

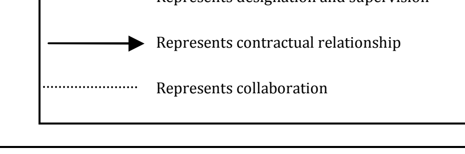

Catchment Management Agency

Catchment Management Agencies (CMAs) are public entities reporting to the Minister of Water and Environmental Affairs, established under the National Water Act, 1998 (Act No. 36 of 1998). The CMAs are service delivery agencies, established to manage water resources at a regional or catchment level, while involving local communities in the decision making process. The CMAs are responsible for coordinating the functions of other institutions involved in water-related matters, and to involve local communities (Department of Water Affairs 2009). The CMAs are responsible for the development of catchment management strategies for their respective catchment area, which includes

"strategies, objectives, plans, guidelines and procedure for the CMAs in order to protect the water resources within the catchment. The strategy needs to take into account the geology, demography, land use, climate, vegetation and water works within its water (National Water Act, 20 August 1998)." The strategy also needs to contain water allocation plans, and in its development, the CMAs need to consult with Water User Associations and Water Service Authorities(National Water Act, 20 August 1998). Two CMAs have been established to date; Inkomati and Breede-Overberg CMAs (Department of Water Affairs, 2009)

Municipal and community level

<u>Water Service Authority and Water Service Provider</u>

The Water Service Authority is a municipal government, which is responsible to ensure consumers in its area of jurisdiction have access to efficient and affordable water services. The Water Service Authority provides potable water services to their respective municipal area, through contracting the work to the Water Service Provider, the final water provider to the localities. The Water Service Providers can be public, private or mixed entities, or municipal governments themselves. They have the responsibility of providing the services and perfoming their duties as stipulated in their contract with the water services authorities.(Water Services Act, Act No. 108 of 1997, 19 December 1997)

<u>Water User Associations</u>

Water User Associations (WUAs) are co-operative associations of individual water users (20 August 1998) established through the National Water Act (Act No 36 of 1998). The WUAs are established through application by water users and approved by the Ministry of Water and Environmental Affairs. The Ministry can also initiate creation of WUAs. Prior to the National Water Act, irrigation boards, subterranean water control boards and water boards established for stocking watering purposes existed which are now in the process of being converted into the WUAs. Each WUA has to establish its own constitution.(20 August 1998; Department of Water Affairs 2009)

<u>Traditional leaders</u>

The role of traditional leaders in water resources management is not clearly specified in water-related legislation. However, in some of the villages within South Africa, there are traditional ways to manage water resources, which is coordinated and managed by traditional leaders. For example, at Tshikombani village within Venda, where municipal water supply is unreliable, villagers have installed a system of hose pipe which diverts water from nearby mountain streams, under the leadership of village traditional leader. The installation and maintenance of the system is self-financed by the village and managed by the leader. When a conflict of water use occurs both within the village and with other nearby villages, the traditional leader also settles the conflict. This type of traditional water resources management becomes critical for livelihoods of the rural poor, in particularly areas where the government system of water resources are not effective. The White Paper on Traditional Leadership and Governance, recognizes the important role of traditional leaders in water

resources management, and urges national and provincial governments to ensure engagement of the traditional leaders (Malzbender, Goldin et al. 2005).

4.2.1.5 Organisations and Actors in Livelihoods, agriculture and rural development

Agriculture and Rural Development

The legislative responsibility for agriculture lies both at national and provincial levels as described in the Schedule 4 of the Constitution (18 December 1996).

Ministry of Agriculture, Forestry and Fisheries

The Ministry of Agriculture, Forestry and Fisheries is the national level ministry, which is responsible for supporting growth of the agricultural sector, food security, conservation and sustainable use of genetic resources for food and agriculture, and supporting farmers through land reform programs. The Ministry is also a National Authority for the Cartagena protocol on biosafety. (Department of Agriculture ; Ginger 2009)

The National Agricultural Marketing Council

The National Agricultural Marketing Council (NAMC) is a statutory body established in 1997, through the Marketing of Agricultural Products Act (Act No 47 of 1996). The main objective of the NAMC is to advise the Minister of Agriculture and its department on policy related to marketing of agricultural products, take initiative on strategic positioning of the South African agricultural sector in global market, and to provide useful agriculture related information to the agriculture sector and farmers, particularly in terms of market access. (National Agricultural Marketing Council)

Agricultural Research Council

The Agricultural Research Council is a public entity created by the Agricultural Research Act 86 of 1990. It is a public entity and is the first agricultural research institution in South Africa. One of its main areas of research is in technology transfers for sustainable rural livelihoods. (Ginger 2009)

The Land and Agricultural Development Bank of South Africa

The Land and Agriculture Development Bank of South Africa is a parastatal institution, which is owned by the government but does not receive direct funding. The bank was established with the aim for supporting resource-poor farmers and established farmers. (Ginger 2009)

Limpopo Provincial Government Department of Agriculture

The Limpopo Provincial Government Department of Agriculture implements agriculture policy derived from both the National Parliament and the Provincial Legislature. The Department covers areas related to implementing legislation related to land reform, plant and crop, veterinary, resources conservation, and

the black economic empowerment.(Limpopo Provincial Government Department of Agriculture)

Farmers Associations

There are several farmers associations, working at the national and local levels for the benefit of their members. The National African Farmers Union of South Africa was established to facilitate entry of the black farmers into the mainstream of agriculture, through lobbying and advocacy. It is composed of farmers, agribusiness and corporate members.(National African Farmers Union of South Africa, undated) The Southern African Macadamia Growers' Association (SAMAC) was established to lead the development of a profitable and sustainable industry. Its members include macadamia nut growers, processors and marketers. (The South African Macadamia Growers' Association, undated). The Phadima Agricultural Association is a community-based organization established in 2000 as a consortium of eight projects from the southern region of the Limpopo province. The Association is currently undertaking various agricultural projects to increase production and income generation, and improve nutrition. (Biowatch South Africa, undated)

Land

<u>Ministry of Rural Development and Land Reform</u>

In South Africa, legislative responsibility for land lies within the national government.

The Department of Rural Development and Land Reform under the Ministry of Rural Development and Land Reform is the national government organization which is in charge of land management issues in South Africa. The main focus of land policy is land reform, which includes 3 main components; land restitution, land redistribution and land tenure reform. Land restitution is the programme to support victims of forced removals which took place after 1913 based on the past racially discriminatory laws and practices. It helps the victims to restore property or to receive equitable compensation. The Land Claim Court and Commission on Restitution of Land Rights created under the Restitution of Land Rights Act, 1994 manages the programme. The Land redistribution programme provides land access to the poor and disadvantaged people. The land distribution for agricultural purposes is dealt jointly with the Department of Agriculture under the Ministry of Agriculture, Forestry and Fishery. The land tenure reform is reviewing present land policy and legislation, to improve the tenure system to accommodate diverse forms of land tenure, including communal tenure. (Caledonia Centre for Social Development ; Department of Rural Development and Land Reform)

According to the Constitution, both national and provincial government has legislative responsibility over tourism, including local tourism. Executive responsibility for local tourism lies at the municipal level. (Constitution of the Republic of South Africa, 18 December 1996)

Tourism

Ministry of Tourism

The Ministry of Tourism through its Department of Tourism is the national level government organization that supports responsible tourism growth within South Africa. One of the main directorates under the department is the Tourism Industry Development Directorate, which provides support for transforming the tourism industry. The directorate also facilitates tourism investment, regulates tourism industry and undertakes research related to tourism. Another key directorate is the Tourism Industry Promotion Directorate, which promotes South Africa's tourism particularly throughout the international community. (Department of Tourism: Republic of South Africa)

Limpopo Provincial Government, Department of Economic Development, Environment and Tourism

At the Provincial level, the Department of Economic Development, Environment and Tourism has responsibility for regulating, developing and promoting tourism in Limpopo province. The Tourism Growth Strategy for Limpopo provides an overall direction for tourism development within the province, and the Department supports business development within the province to implement the strategy.(Limpopo Provincial Government: Department of Economic Environment and Tourism ; Limpopo Provincial Government: Department of Economic Environment and Tourism 2009)

Limpopo Tourism and Parks Board

See description for the Limpopo Tourism and Parks Board, in section 4.2.1.3.

District Municipality

At the municipal level, the Planning and Development Directorate of District Municipal government (in case of Mopani) has responsibility for developing strategy and programmes for local tourism promotion (Mopani District Municipality 2007)

At the local level, co-management bodies established with local community play a role in tourism management.

On a related subject to industry development, industrial promotion and pollution control are legislative responsibilities of both national and provincial governments. Noise pollution is the legislative responsibility of the provincial government. Municipal government has executive responsibility over air and noise pollution. (schedule 4 and 5, part B of Constitution)(Constitution of the 18 December 1996)

Ministry of Mineral Resources

The legislative responsibility over mineral resources lies at the national government. The Ministry of Mineral Resources and its Department of Mineral Resources (previously it was the Ministry and Department of Minerals and Energy) is a national government organization that supports mineral resources

development in South Africa, which accounts for 7.7 % of South Africa's GDP. The Ministry of Mineral Resources maintains legal and fiscal competencies, which allows rational exploration and mining of resources, and infrastructure which supports the mining industry such as road, airlinks, harbor facilities, power and water supplies. It also regulates the rehabilitation of land disturbed by exploration and mining. The Mineral and Petroleum Resources Development Act of 2002 (MPRDA No 28 of 2002) is the legal basis for regulating the mining industry. (Department of Minerals and Energy: The Republic of South Africa, undated)

Ministry of Trade and Industry

The Ministry of Trade and Industry is the national government organization that supports trade and industry. The Ministry manages a programme to support South African industry by effectively utilizing the government procurement, supports small and medium enterprises, and integrating industrial development in spatial planning. (Department of Trade and Industry: the Republic of South Africa) Under the Ministry, there are institutions that support and regulate trade and industry. They are development finance institutions, small enterprise development institutions, regulatory institutions, institutions related to technology innovation and standards, and programmes such as South African Women Entrepreneurs' Network (SAWEN).(Department of Trade and Industry: the Republic of South Africa, undated)

Environmental Management Inspectors

In order to improve compliance and enforcement of environmental legislation, the Environmental Management Inspectors, commonly known as 'Green Scorpions' have been established through the amendment of the National Environmental Management Act. The Green Scorpions is a network of environmental enforcement officials from different government departments, including national, provincial and municipal level. The inspectors may be designated with powers to conduct routine inspections, question people, take samples and gain search warrants, which would affect natural resources protection, conservation, pollution and waste management. (Fakier, Stepehens et al. 2005; International Network of Environmental Compliance and Enforcement 2007)

National Union of Mine Workers

The National Union of Mine Workers was formed in 1982. It is the largest recognized collective bargaining agent, which represents workers in the mining, construction, and electrical energy industry in South Africa. (National Union of Mine Workers, undated)

Provincial Government

According to the Constitution, the provincial government has both legislative and executive responsibility over provincial planning. Municipal planning is legislated both by the national and provincial government, and executed by the

municipal government. (Constitution of the Republic of Sough Africa, 18 December 1996)

Municipal Government

The Planning and Development Directorate of Municipal Government (in case of Mopani) has responsibility for developing district level planning, which involves local economic development strategy, integrated development, and spatial planning which includes land use management. The planning process takes place in consultation with key stakeholders such as local communities and local businesses. (Mopani District Municipality 2007; Vhembe District Municipality 2008). The Integrated Development Plan (IDP) is a five-year strategic development plan for a municipality, which serves as the principal strategic management instrument. The IDP supersedes all the other plans which guides development at a local level. (Development Planning and Local Economic Development: Department of Provincial and Local Government (DPLG), undated)

4.2.1.6 Other organisations

South African Human Rights Commission

The South African Human Rights Commission is an independent Commission, whose mandate derives from the Constitution. The Commission is in charge of promoting the respect for human rights, protection of human rights, and monitoring and assessment of compliance to the human rights law in the country. (Ginger 2009)

Commission for Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities

The Commission for Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities was established based on the Commission for the Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities Act, 2002 (Act No. 19 of 2002). The Commission promotes the rights of cultural religious and linguistic communities through supporting communication between the state and communities, monitoring compliance to the relevant law, and mediating and facilitating inter-community conflicts. The Commission also facilitates programmes to foster understanding for cultural religious and linguistic diversity, and lobbies government departments and legislative authorities to review and amend any law which undermines rights of cultural religious and linguistic communities. (Commission for the Promotion and Protection of the Rights of Cultural, undated)

Ministry of Cooperative Governance and Indigenous Affairs

The Ministry of Cooperative Governance and Indigenous Affairs is a national government ministry, which defines policies and legislation for implementing co-operative government as described in chapter 3 of the Constitution, and for local governments. Some of the key legislation includes the Intergovernmental Relations Framework Act, 2005 (Act No 13 of 2005) which defines relationship

between national, provincial and local governments and specifies how to resolve disputes. The Traditional Leadership and Governance Framework Act, 2003 (Act No 56 of 2003) defines institutional structure for traditional leadership (for example, house of traditional leaders), and how to integrate traditional leadership into the national government system. The Ministry also supports implementation of legislations through providing capacity building support to the provincial and municipal governments.(Ministry of Cooperative Governance and Traditional Affairs: the Republic of South Africa, undated)

South African Local Government Association

The South African Local Government Association (SALGA) is an association of local governments, which aims to assist the wholesale transformation of local government under the Constitution. The SALGA represents and promotes the interest of local government, raises the profile of local governments, acts as national employer's organization for the municipal and provincial member employers, and aims to be recognized by national and government as the national representative of local governments. (South African Local Government Association, undated)

Research and academic institutions

There are research and academic institutions within the case study area and also other parts of South Africa, conducting research on topics related to the LiveDiverse case study area. These institutions include; the University of Limpopo, University of Venda, the Tshwane University of Technology, the University of Johannesburg, the University of Pretoria, and the Council for Scientific and Research Institute (CSIR) who is the partner to the LiveDiverse project (Council for Scientific and Industrial Research 2009).

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4.2.2 Legal Framework

4.1.2.1 Introduction

South Africa's legal system was significantly transformed as part of the broader post-apartheid reforms in the 1990s. However, many of the laws unrelated to apartheid continue to be rooted in the "Old Authorities", as adapted from both Roman-Dutch, and English legal traditions. The influence of English law is most pronounced in areas of public, corporate and mercantile law, as well as criminal law procedures. Roman-Dutch law has predominantly influenced private law, e.g. law of persons, property, and succession.

The Constitution of South Africa, Act 108, was adopted in 1996 and represents the supreme law of the land, binding on all judicial organs of the state. All laws and conduct must be in accordance with the Constitution. The Constitution also provides for separation of the legislative, executive and judicial arms of the State. In terms of legislative functions, the provinces can pass laws on certain matters such as education, health and housing. However, the national legislature retains shared competence in these areas, and may override provincial legislation in the event of conflict. Exclusive provincial legislative competence is reserved for less important matters. The provinces can also influence the drafting of national legislation through their participation in the National Parliament.

Judicial authority rests with the State, and the Minister of Justice has responsibility for administering the justice system. The judicial system is headed by the Supreme Court, which is comprised of an appellate division, (the highest court in the country), and six provincial divisions. Each provincial division encompasses a judge president, three local divisions presided over by judges, and a magisterial division presided over by magistrates. Separate traditional courts administer African traditional law and custom, they are presided over by traditional leaders. Another key feature from the common law tradition within South Africa is that the Appellate Court's decisions are binding on all lower courts, as are the decisions – within their areas of jurisdiction – of the provincial and local divisions. Such decisions therefore constitute an important source of law.

4.1.2.2 Procedural Rights: Access to Information, Participation in Decision-Making and Access to Justice

Building upon the right of access to information held by the State and other persons or institutions contained section 31(1) of the South African Constitution, the Promotion of Access to Information Act 2 of 2000, which came into effect on 9th March 2001, provides the framework and procedures to implement this right.

While the Constitution of South Africa does not explicitly provide for a right to participate in decision-making, the foundation for such a right can be seen in a number of its sections, including the right to freedom of expression (Art.16), political rights (Art.19), the environmental right (Art. 24), the right of access to information (Art.32), and right to just administrative action and reasons for administrative decisions (Art.33), the right to have any dispute settled in a court of law (Art.34), and *locus standi* to enforce rights in a court of law (Art. 38). Moreover, several provisions related to public participation are included under the National Environmental Management Act 107, 1998 (NEMA). Article 29(4)(f), for instance, stipulates that, "the participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured." Similarly, Art. 23(2)(d) provides that the government must ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment. In addition, Art. 2(4(k) provides that decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law; Art. 2(4)(o) stipulates that the environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage; Art. 2(4)(q) requires that the vital role of women and youth in environmental management and development must be recognized and their full participation therein must be promoted.

A number of key provisions of the Constitution provide for a right of access to justice in South Africa, namely the right to just administrative action and reasons for administrative decisions (Art.33), the right to have any dispute settled in a court of law (Art.34), and *locus standi* to enforce rights in a court of law (Art. 38). Moreover, the National Environmental Management Act provides that, everyone has legal standing to enforce environmental law (Art.32). Such a right is also developed by the Promotion of Administrative Justice Act, 2000, which aims to, "given effect to the right to administrative action that is lawful, reasonable and procedurally fair and to the right to written reasons for administrative action." The latter act is supplemented by the Regulations on Fair Administrative Procedures in Respect to the Promotion of Administrative Justice Act, 2000 (Act. 3 of 2000).

4.1.2.3 Resource Tenure and Property Rights

Two key Articles of the South African Constitution related to resource tenure and property rights. Firstly, Art. 25 stipulates that, "no one may be deprived of

property except in terms of law of general application, and no law may permit arbitrary deprivation of property." According to the Constitution, property may therefore only be expropriated for a public purpose or in the public interest, and subject to appropriate compensation being paid (Art. 25). The Constitution also provides that, "everyone has the right, (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that – (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

Legislation related to land rights has undergone significant developments in the last couple of decades. Founded upon the Constitution, the Land Administration Act, 1995, provides for, "the delegation of powers and the assignment of the administration of laws regarding land matters to the provinces; and the creation of uniform land legislation." This legislation is supplemented by the Communal Land Rights, 2004 (No 11 of 2004); the Land Reform (labor tenants) Act, 1996; Communal Property Association Act, 1996; and the Extension of Security of Tenure Act, 1997. In addition, it is worth noting the Land Use Management Bill, 2008 is currently before the National Assembly. The Bill seeks to, provide for a uniform, efficient and integrated regulatory framework in the Republic for land use and land use management which promotes the public interest; to provide direct principles and compulsory norms and standards for land use management in the Republic; to address the imbalances of the past and ensure that there is equity in land use management by promoting cooperative governance, socio-economic benefits and the achievement of land reform objectives; to provide for land use schemes; to establish Land Use Regulators in all spheres of governance and a National Land Use Commission.

In 1994, the Restitution of Land Rights, was adopted to provide for, "the restitution of rights in land in respect of which persons or communities were dispossessed under or for the purpose of furthering the objects of any racially based discriminatory law." This law was amended in 2003 to allow the Ministry of Land Affairs to expropriate land for the purpose of restitution.

4.1.2.4 Legal Framework for Natural Resource Management

In terms of the legal framework for natural resource management, a number of key pieces of legislation have been adopted.

In relation to the environment in general, the National Environmental Management Act, 1998 and its amendments provide the cornerstone legislation. The Act is a framework instruments which seeks to, provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of the state; to provide for the prohibition, restriction or control of activities which are likely to have a detrimental effect on the environment; and to provide for matters connected therewith. The Act therefore sets out general

environmental principles and creates the institutions necessary for their implementation. The Act is supplemented by the National Heritage Resource Act, 1999 (No. 25 of 1999) which establishes a national system for the management of heritage resources; and provides general principles governing the management of national heritage resources. In addition the World Heritage Convention Act, 1999 (No 49 of 1999), seeks to transpose the provisions of the UNESCO World Heritage Convention into national legislation. Finally, it should be noted that the Genetically Modified Organisms Act, 1997 (No 15 of 1997), seeks "to provide for measures to promote the responsible development, production, use and application of genetically modified organisms; [and] to ensure that all activities involving the use of genetically modified organisms (including, importation, production, release and distribution) shall be carried out in such was as to limit possible harmful consequence to the environment."

In relation to Biodiversity, the National Environmental Management: Biodiversity Act, 2004 (No 10 of 2004), seeks to provide for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998. In particular the Biodiversity Act seeks to, protect species and ecosystems that warrant national protection; ensure the sustainable use of indigenous biological resources; provide for the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; and establish the South African National Biodiversity Institute.

The above biodiversity-related acts, are complemented by the National Environmental Management: Protect Areas Act, 2003, and subsequent amendment act, 2004; see also, the Amendment Bill, 2008. The objective of this piece of legislation, is to "provide for the protection and conservation of ecologically viable areas … ; to provide for cooperative governance in the declaration and management of protected areas; to effect a national system of protected areas in South Africa …; to provide for a representative network of protected areas on state land, private land and communal land; to promote sustainable utilization of protected areas for the benefit of people, in a manner that would preserve the ecological character of such areas; [and] to promote participation of local communities in the management of protected areas, where appropriate."

Subsequent, regulations include, the Regulations on bio-prospecting, access and benefit-sharing (8 February 2008), the Threatened and Protected Species Regulations (23 February 2007), and amendments, and the Regulations for the Proper Administration of Special Nature Reserves, National Parks and World Heritage Sites (28 October 2005). Legislation related to Biodiversity is also supported by the National Biodiversity Strategy and Action Plan, 2005, and the National Biodiversity Framework, 2007.

In relation to Forests, the main body of law is encapsulated in the National Forest Act, (30 October 1998). This law seeks to, *inter alia*, promote the sustainable development and management of forests; provide special measures to protect forests and trees, through the possibility of created protected forest areas; establish provisions related to the access and use of forests; facilitate community

forestry (with the possibility for communities to enter into agreements with the Ministry); and promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination. Two subsequent regulations supplement the Forest Act, namely the Exemptions in terms of section 24(6) of the National Forest Act, 1998 (2008), and the Delegation of powers and duties under the National Forests Act (2005). The former piece of legislation provides exemptions of licenses for members of communities who live within close proximity of a state forest and whose livelihoods depend on the forest; and the latter law delegates certain powers and duties to the organization responsible for South African National Parks, ie., SanParks.

Finally, in relation to water, two key pieces of legislation exist, the National Water Act, 1998, and the National Water Services Act, Act 108 of 1997. The National Water Act seeks, to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account a range of socio, economic, cultural and environmental factors. The National Water Services Act, seeks to provide for the right of access to basic water supply and the right to basic sanitation necessary to secure sufficient water and an environment not harmful to human health or well-being. Both pieces of legislation are supplemented by the National Water Resources Strategy, adopted in 2002.

The above-mentioned laws and policies related to natural resources management are also supported by the adoption of the National Framework for Sustainable Development in South Africa.

4.1.2.5 Ethnic Minority Rights

The Constitution provides an important basis by which individual rights are sought to be protected. In addition, to the above mentioned rights related to access to information, participation and access to justice, the rights of equality and life; rights for communities to enjoy their culture, practice their religion and language; and rights for individuals choose the language, and to participate in the cultural life of their choice, are included. In addition, to the individual rights included within the Constitution, South Africa has adopted the Human Rights Commission Act, 1994 and the Commission for the Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities Act, 2002.

Another key piece of legislation that is also important to highlight is the Traditional Leadership and Governance Framework Act, 2003 (as amended). AS noted in the previous section, the provisions of the latter act define traditional leaders and traditional councils, their roles and function within customary institutions, structures and systems of governance.

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National Biodiversity Strategy and Action Plan, 2005

National Environmental Management, Act 107 of 1998

National Environmental Management: Biodiversity Act, 2004 (No 10 of 2004)

National Environmental Management: Protect Areas Act, 2003

National Forest Act, (30 October 1998)

National Framework for Sustainable Development in South Africa

National Heritage Resource Act, 1999 (No. 25 of 1999)

National Water Resources Strategy, adopted in 2002

Promotion of Access to Information, Act 2 of 2000

Promotion of Administrative Justice Act of 2000

Regulations for the Proper Administration of Special Nature Reserves, National Parks and World Heritage Sites (28 October 2005).

Regulations on bio-prospecting, access and benefit-sharing (8 February 2008)

Regulations on Fair Administrative Procedures in Respect to the Promotion of Administrative Justice, Act 3 of 2000

Restitution of Land Rights Act

Threatened and Protected Species Regulations (23 February 2007)

Traditional Leadership and Governance Framework Act, 2003

Water Act, 1998

Water Services Act, Act 108 of 1997

World Heritage Convention Act, 1999 (No 49 of 1999)

4.3 THE WARNA RIVER BASIN, INDIA

4.3.1 Institutions and Actors

4.3.1.1 Introduction

The following section provides an overview of organizations and actors associated with issues occurring in the Warna basin, particularly from Biodiversity and Livelihoods perspectives. First, an overview of the Indian government system is described, followed by an explanation of organizations and actors associated with specific issues.

4.3.1.2 The Indian Government System

India has a federal government system, and there are twenty eight States and seven Union Territories. The relationship between the Central (Union) Government and the State Governments is defined in the Indian Constitution. The Indian Constitution, under its Seventh Schedule, defines subjects that can be managed and legislated by different levels of government. The Central Government manages subjects such as defense, military, foreign affairs, transportation, disputes over inter-state river etc., which are listed under the 'Union List' in the Constitution. The State Government manages subjects such as agriculture, land, water, fisheries and other items, as under the so-called 'State List.' Some subjects are managed jointly – the "Concurrent list" by the central and state government, including economic and social planning, electricity, forestry, wildlife protection and other items. (Government of India 1950)

The Executive branch of the Central Government is headed by the Prime Minister as usually is the system in a parliamentary democracy. The President is the constitutional head without much of executive powers on its own as they can only be exercised with advice from the Prime Minister and the Council of Ministers. All the government ministries and departments are headed by Ministers. There are 33 Cabinet Ministers, 7 Minister of States with Independent Charge, and 38 Ministers of States. The Legislative branch consists of Lok Sabha (Lower House) and Rajya Sabha (Upper House). The Central Judiciary function lies with the Supreme Court. (Government of India 2009)

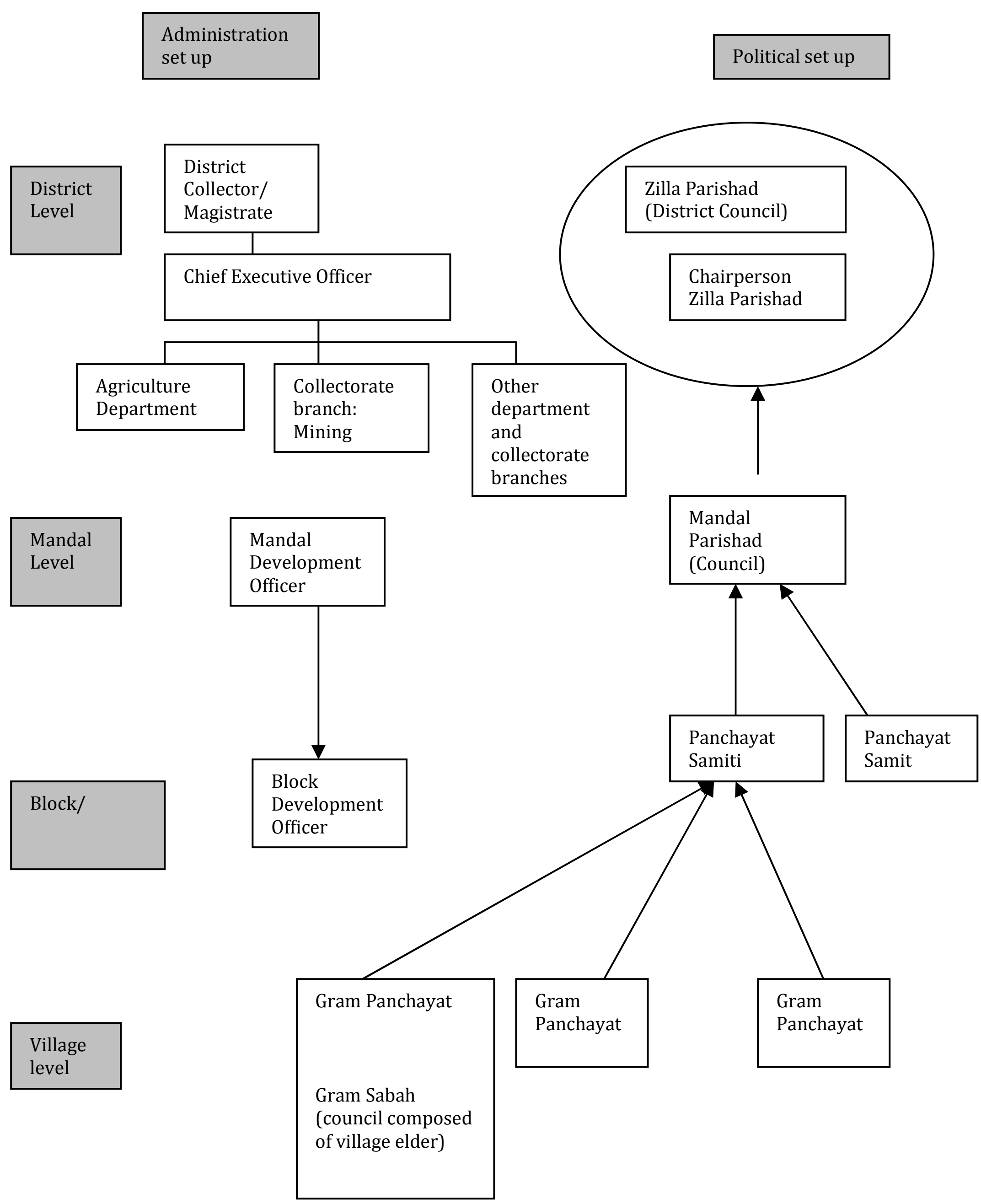
The Executive branch of the State Government is headed by the Chief Minister. Usually, the political party who has the majority (or has the largest number of seats in case of a coalition) at the State Legislative Assembly elects its legislative party leader who becomes the Chief Minister. The Chief Minister heads the government, and Council of Ministers. The Governor is a nominal head of the State. Maharashtra State, where LiveDiverse case study area lies, has a bicameral legislative system. The Maharashtra State Legislative Assembly (Vidhan Sabna) which is directly elected by people is the Lower House, and the Maharashtra State Legislative Council (Vidhan Parishad) is the Upper House (Maps of India). As for judicial function, India has 21 High courts at State level, and a number of civil, criminal and family courts at lower levels such as districts. In the Maharashtra State, the highest judiciary is the Bombay High Court. The Court

has jurisdiction over the state of Maharashtra, Goa, and the Union territories of Daman and Diu and Dadra and Nagar Haveli(Maps of India ; Wikipedia 2010).

In the early 90s there was a serious effort at decentralization and devolution of powers with the 73rd and 74th constitutional amendments. The 73rd constitutional amendment, enacted in 1992, sees the three tier (district, tehsil and village) Panchayati Raj Institutions as “self government” institutions for the rural areas and brought 29 subjects, as given in the Eleventh Schedule under its jurisdiction (THE CONSTITUTION (SEVENTY-THIRD AMENDMENT) ACT, 1992). A similar act, 74th constitutional amendment in the context of the urban areas basically to make the urban local bodies like the municipal corporations and municipalities vibrant democratic units of self-government (THE CONSTITUTION (SEVENTY-FOURTH AMENDMENT) ACT, 1992)

Figure 7: Panchaya Raj (Local Governance System) in India

Source: Figure created by author with reference (Claasen and van Leeuwen 2008)



Each state is divided into several administrative districts. The bureaucratic head of district is called the District Collector or Magistrates. District level departments and units are housed within District Collector's office. Kolhapur and Sangli District, where Warna river basin is located, houses Agriculture Department and Collectorate Branches which includes Mining, Resettlement, Planning, Land etc. Zilla Parishad is the District Council, which composes of elected representatives, and the political head is the President of the Zilla

Parishad. The District is divided into several Mandal, then into Tehsils or Blocks (some levels may not exist depending on the size of the district), composed of several Gram Panchayat, the lowest administrative unit within Indian local government system(Claasen and van Leeuwen 2008; SOPPECOM 2009). Gram Panchayat can vary in size from 50 to 2500 households and represents traditional village governance units. The traditional way of village governance is through village elders, and 73rd and 74th Amendments to the Constitution have incorporated this traditional system into the formal government structure. This local governance structure is referred to as Panchayats Raj, and the figure 7 illustrates this structure. The Maharashtra state has 27000 village Panchayats. Some of the urban areas have separate governance system as they are called Municipalities, and there administration is undertaken by the Municipal Corporations. For instance, the Kolhapur town, the capital of Kolhapur District where the Warna river basin lies, is administered by Kolhapur Municipal Corporation. (Government of India 1950; Claasen and van Leeuwen 2008; The Collector 2009)

4.3.1.3 Organisations and actors related to Biodiversity

Biodiversity in the Warna river basin primarily involves forests and wildlife and their habitat. Forestry and protection of wild animals and birds are both listed under the Concurrent List in the Constitution, which means both Central and State governments have responsibilities. (Government of India 1950).

National level

Ministry of Environment and Forest (MOEF)

The Ministry of Environment and Forest is the Central Government agency responsible for developing national plans, strategy and programmes related to biodiversity conservation, and promoting and integrating into sectoral and inter-sectoral planning. The Central Government may give direction to any State Government, in executing the Biodiversity Act. (5 February 2003) The Ministry is headed by the Minister of State with Independent Charge, Shri Jairam Ramesh. The Minister is not part of the Cabinet Ministers.(Government of India 2009)

The MOEF has two Wings: the Environment Wing, and Forest & Wildlife Wing. The Environment Wing includes units which administer international agreements, and industrial development such as impact assessment. The National Biodiversity Authority sits within the unit headed by the Joint Secretary A.K. Goyal. The unit which conducts impact assessment on industry, infrastructure, river valleys and mining is headed by the Advisor Nalini Bhat. (Ministry of Environment & Forest).

The Forests and wildlife Wing includes divisions managing forest wildlife. Cluster of divisions headed by the Additional Director General (Forest Conservation) include, among other divisions: Forest Protection; Forest Policy;

and Forestry Research and Training. Various research institutes sit under the Forestry Research and Training division, including the Indian Institute of Forest Management, Indian Council for Forest Research and Education, etc. A cluster of divisions headed by the Additional Director General (Wildlife) includes divisions which administer national parks and sanctuaries, the Wildlife Institute of India, and projects to conserve specific species such as National Tiger Project Authority. Figure 8 illustrates key units within MOEF and their relationships. (Ministry of Environment & Forest)

Below is a short description of some key units within MOEF related to biodiversity.

National Biodiversity Authority: The National Biodiversity Authority (NBA) was established in 2003, with its function defined in the Biological Diversity Act 2002. The NBA regulates research and the transfer of the knowledge arising from research related to biodiversity in India. The NBA also has power to oppose granting intellectual property rights to any country, which originates from biological resources in India. The NBA is bound by the direction given by the Central Government. (5 February 2003; National Biodiversity Authority India 2006). The NBA advises the Central government on matters related to biodiversity conservation, sustainable use of resources, and benefit sharing. NBA also advises the State government in the selection of areas to be designated as Biodiversity heritage sites, and its management. Based on the consultation with the Central Government, the State Governments defines the area and the rules for managing Biodiversity heritage sites and frames scheme for compensating and rehabilitating affected people. (National Biodiversity Act, 5 February 2003)

National Tiger Conservation Authority : The National Tiger Conservation Authority manages the Project Tiger scheme, which has been in operation since 1973. The primary objective of the project is to ensure a viable population of tiger in India. Currently, there are 27 tiger reserves in India which covers 37761 Square kilometers. The project adopts the approach of designating core and buffer areas when establishing reserves. While the core area restricts any human activities, certain types of natural resources harvesting activities are allowed within buffer zones (Project Tiger Directorate, undated).

Indian Council of Forestry Research and Education: The Indian Council of Forestry Research and Education (ICFRE) was established in 1986, as an autonomous body of Ministry of Environment and Forest. ICFRE undertakes and coordinates forestry related research nation-wide, as well as promoting education in the area of forestry. It plays a role as national clearing house on forestry matters, and has central library, along with eight regional research institutes and four research centers in India (Indian Council of Forestry Research and Education, undated). The ICFRE is also responsible for providing training to forest officers from the Indian Forest Service and State Forest Services.

Wild Life Institute of India: Wildlife Institute of India was established in 1982, under Ministry of Environment and Forest. It is an academic institution which conducts research, as well as provides academic courses on wildlife and management (Wildlife Institute of India 2009). Originally, the institute was

mandated to provide training to forest officers on wildlife management, advise government on wildlife conservation and research studies. Later, it has expanded its scope to providing Master of Science in Wildlife, and conduct consultancy work and work related to Environmental Impact Assessment.

Indian Institute of Forests Management: Indian Institute of Forests Management was established in 1982 by the Government of India. It is an academic institution engaged in research and training of forestry management. IIFM's role in the government structure is limited as its graduates mostly do find jobs in government sector, but rather engage themselves in NGO and private sectors.

National Afforestation and Eco-development Board (NAEB): The National Afforestation and Eco-Development Board was established in 1992, with its responsibility for promoting afforestation, tree planting, ecological restoration and eco-development activities in India. The NAEB provides special attention to degraded forests adjoining forest areas and protected areas, as well as ecologically fragile area including Western Ghats. Its main function includes providing mechanism for ecological restoration of degraded forest, and research and extension of forest regeneration techniques. NAEB was instrumental in catalyzing introduction of Joint Forest Management in all states in the country.

National Wildlife Board: National Wildlife Board was established under the chairmanship of the Prime Minister. It has an important advisory role regarding wildlife conservation, framing policies, reviewing progress and giving directions on particular issues related to wildlife conservation. The National Wildlife Board appoints its own Standing Committee and delegates most of its powers and duties to the standing committee. The permission of the Board is essential for denotification of any sanctuary or national park

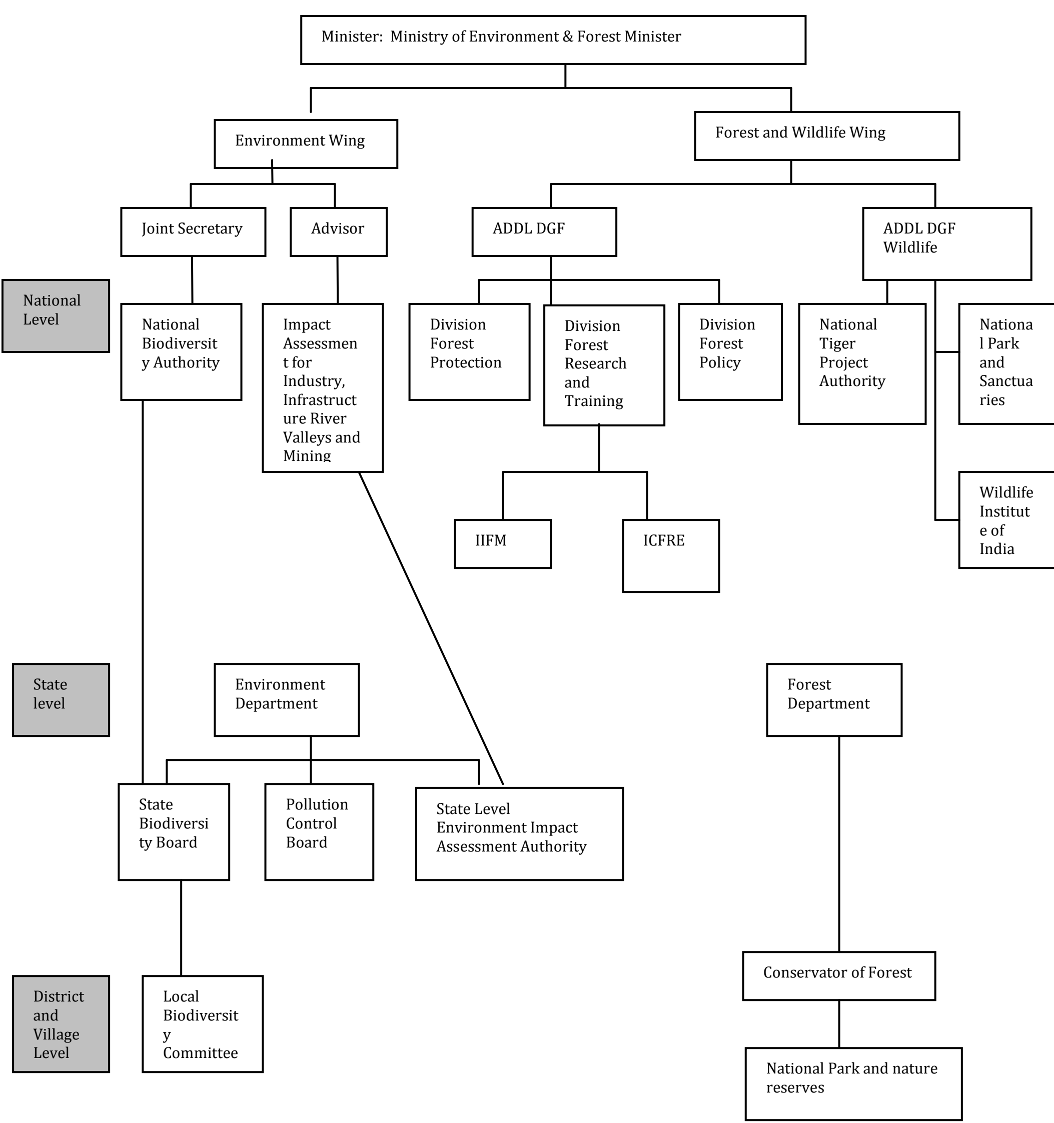
Forest Development Agencies: Forest Development Agencies were recently established at the level of forest division and are an extension of the Forest Division. They have been set up for ease of transfer of funds from NAEB to the Forest Division. The funds are distributed among the JFMCs for implementing the plantation programs of NAEB. In this respect the FDAs have replaced the Forest Division. Most FDAs are constituted under the Societies Act (1860). The Executive Body of the FDA consists of the CF (Chairman), DCF (Member Secretary), several District level officers and representatives of the JFMCs. NAEB has recently requested the State Forest Departments to set up and umbrella body named as the State FDA (SFDA). All FDAs send their plantation proposals to the SFDA, which compiles them and sends a single proposal to NAEB. This reduces the work load of NAEB. The FDA has one advantage over the Forest Division. It can make proposals for seeking funds from various funding organizations independently. However the FDAs have not taken advantage of this opportunity.

Joint Forest Management (JFM) is a very important policy decision that was taken by the Central Government and conveyed to the State Governments. Gradually joint forest management was implemented. Under this policy JFM Committees are to be established in all villages that have forest in their boundary or that are adjacent to forests. A representative of the Forest Department, of rank of Round Officer or Forest Guard is the Member Secretary of the JFMC. Some

Forest Divisions attempted to register JFMCs under the Societies Act, 1860 but this was found to be too difficult and most Divisions have registered the JFMCs at the Forest Division level and maintained a register of JFMCs in the division office. The JFMCs are given a share of the profits from harvesting of forest produce. Each state has issued several GRs spelling out the rules for setting up of JFMCs, their administration and rules for profit sharing. The JFMCs are expected to establish bank accounts to which the profits are transferred. They can use the funds for village development activities such as construction of buildings, roads, school buildings, purchase of furniture etc. All plantation schemes of NAEB and several state government schemes are implemented through JFMCs and have a component for village development. In bargain the JFMCs are expected to protect the forests from cutting for firewood and timber and grazing. In spite of the apparently attractive terms the JFM movement has not really taken off and the status of forest protection, though a little better, is nearly the same as before. There are several reasons: (i) the JFMCs have not received the kind of monetary benefits that will motivate them to protect forests. Hence many eligible villages have still not formed JFMCs or have inactive JFMCs. (ii) A second criticism is that many JFM committee members are illiterate so the JFMCs are still controlled by the Forest Department and are not independent. (iii) The JFMC members do not have alternative to the forests for their needs of forest produce.

Figure 8: Organisations relevant to biodiversity conservation and environmental protection

Reference: (National Biodiversity Authority India 2006; Ministry of Environment & Forest 2009)



MoEF Proposal to establish NEPA

In order to strengthen compliance of environmental regulation, in September 2009 the Ministry of Forest and Environment has drafted a proposal to establish an arms-length National Environment Protection Authority (NEPA) outlining a number of possible forms for such a body. The proposal indicates that NEPA should be a statutory body created through a parliamentary process, and it should have its own budget, decision-making power, and should be autonomous from MoEF (Ministry of Environment & Forest 2009). The MoEF would retain a planning role and would prepare legislation, but the proposed new body would take over EIAs for example, enforcement and monitoring responsibilities(MoEF,

pps 4-5). The rationale for the establishment of such a new body is based on dicta from the 2004 decision *Tamil Nadu Pollution Control Board v. The State Human Rights Commission*. A decision on the proposed NEPA has yet to be made.

National Environment Appellate Authority

The National Environment Appellate Authority is a quasi-judiciary body, which has the same power as vested in a civil court. This Authority handles any appeals by a party adversely affected by industrial operations and processes (The National Environment Appellate Authority Act, 26 March 1997).

State Level

Environment Department

The Environment Department reports to the Forest and Environment Minister of the Maharashtra Government. The Environment Department's Purpose is to implement the Environmental Protection Act, 1986 (EPA). It functions through the following main bodies:

State EIA Authority (SEIAA): This authority considers applications for clearance under the Environmental Protection Act and advises the government on giving clearance to projects under the after applications are received by them (for B list projects under the EIA guidelines of 2006).

The State Expert Appraisal Committee (SEAC): The SEAC is the equivalent of various expert appraisal committees of the Central Government. The SEAC evaluates projects based on reports and presentations made by project proponents and conveys its appraisal to SEIAA. The SEIAA acts as a secretariat for the SEAC.

Maharashtra State Biodiversity Board

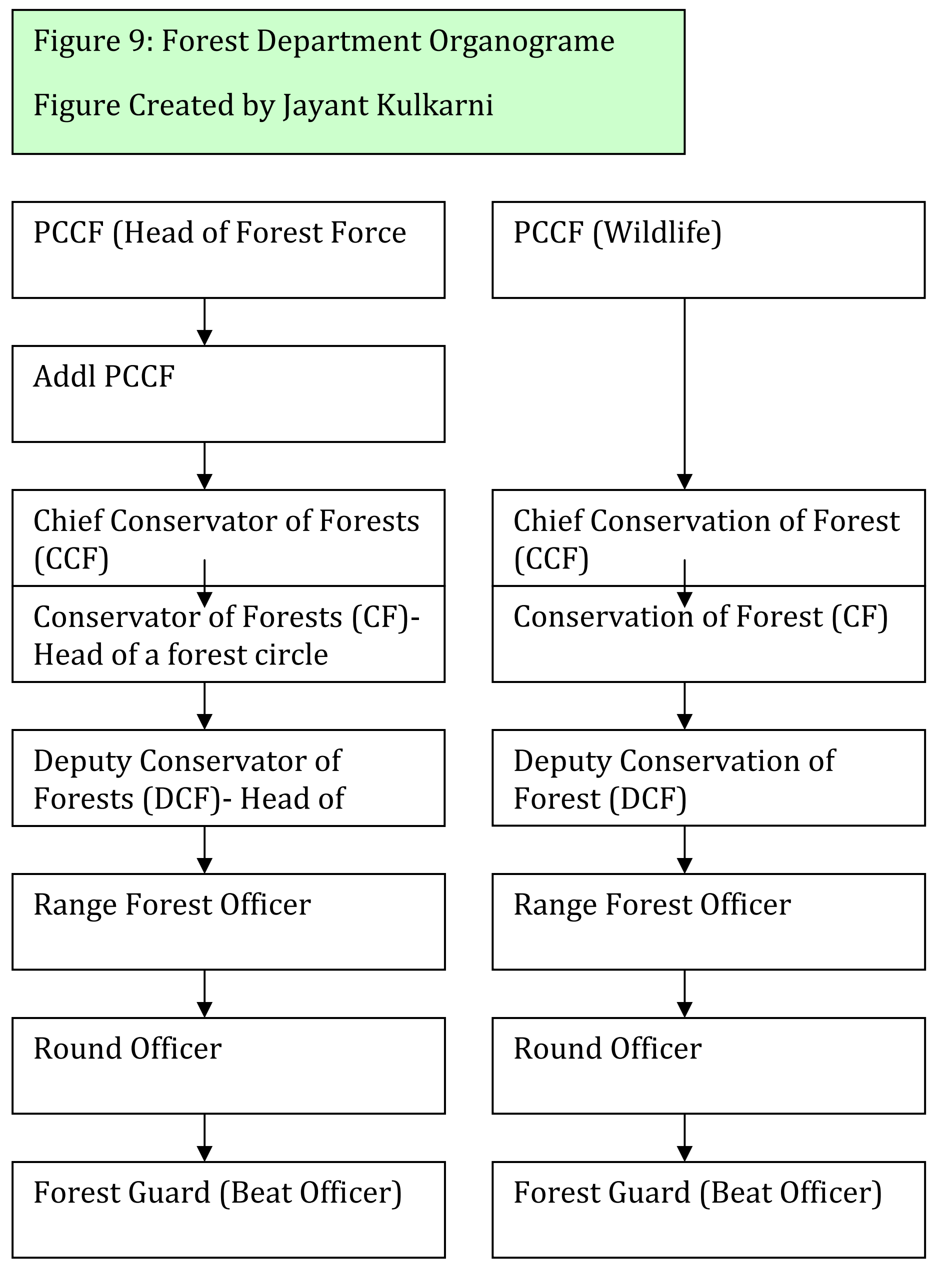
The Biodiversity Act 2002 provides that each State may establish State Biodiversity Board. The role of the State Biodiversity Board is to advise the State Government on matters related to the conservation of biodiversity, and the regulation of commercial use of bio-survey and bio-utilization of biological resources by Indians. The State Biodiversity Board is given direction by the State Government. The State Government may establish State Biodiversity Funds, which will be used for the management and conservation of heritage sites, and to compensate and rehabilitate people affected by the Biodiversity heritage. Sources of fund are grants or loans made by the National Biodiversity Authority and the State Biodiversity Boards.(The Biological Diversity Act 2002, 5 February 2003)

Forest Department

The State Forest Department is responsible for the state forest areas, national parks, wildlife sanctuaries, and reserves (Maharashtra State Forest Department). Forest departments has offices at district levels, where the administrative head of protected areas (including National Parks, wildlife sanctuary and reserves) are located. Detailed structure of Forest Department is provided in the figure 9.

Figure 9: Forest Department Organograme

Figure Created by Jayant Kulkarni



In Maharashtra the PCCF (Wildlife) is the Chief Wildlife Warden. In many states the PCCF (Wildlife) post is replaced by Addl. PCCF (Wildlife). In fact any officer in a state can be named Chief Wildlife Warden. The Territorial and Wildlife wings function fairly independently of one another but there is considerable interaction between them and in fact they are part of the same Department and work in coordination. The officers are freely transferred from one wing to another. In buffer zones of Tiger Reserves the Wildlife Territorial Wings have overlapping jurisdiction.

The forest division is the main independent unit of forest management.

The authorities of CCF, CF and DCF have been changed somewhat in Maharashtra because of some reorganization within the Department so in many cases a CCF heads a circle and a CF heads a forest division. This has led to a lot of confusion. Earlier the post of Conservator (Wildlife), Kolhapur was headed by an officer of rank DCF.

In Maharashtra the Social Forestry Department is responsible for tree plantation on private and public non-forest lands. It falls under the Ministry of Water Conservation. Earlier the Department was fairly active but lately its achievements have been quite low, mainly due to lack of funds. The officers of this Department are drawn from the Forest Department. In most states social forestry is still within the Forest Department and there are posts of DCF or DFO, Social Forestry.

Some state governments have formed corporations called Forest Development Corporations. These are essentially public sector undertakings formed under the Company Act. In Maharashtra this is known as Forest Development Corporations of Maharashtra. The objective is to give a commercial focus to forestry and make it financially viable. In Maharashtra large areas of forest were handed over to the FDCM for conversion to teak forests, because teak is one of the most valuable timber species. Some of these plantations failed because the land was unsuitable for teak and good quality forests were destroyed in the process. It is doubtful if the FDCM has become financially viable. The officers of the Forest Development Corporations are drawn from the Forest Department.

District and Village Level

Biodiversity Management Committee

The Biodiversity Act 2002 defines that every local body (Panchayats and Municipalities) shall constitute a Biodiversity Management Committee. Its function is to promote conservation and sustainable use of biological diversity (s.41(1))[80]in the local area, and support documenting biodiversity in the area.

[80] For the purposes of the Act, “sustainable use” is defined in s.2 as “the use of components of biological diversity in such manner and at such rate that does not lead to the long term decline of

When there is a decision made related to the use of biological resources and knowledge arising from resources within the territorial jurisdiction of Biodiversity Management Committee, the National Biodiversity Authority and the State Biodiversity Boards have to consult with the Biodiversity Management Committees. Biodiversity Management Fund can be established for the purpose of biodiversity conservation and supporting local communities in a way that contributes to the conservation of biodiversity. The source of funds comes from National Biodiversity Authority and the States Biodiversity Board. Biodiversity Management Committee is obliged to produce an annual report and audited copy of accounts to the District Magistrate. (The Biological Diversity Act 2002, 5 February 2003)

Conservator Forest

Conservator of Forest is the district level office of the State Forest Department. This office administers protected areas in the district, which includes National Parks, Wildlife Sanctuaries and Reserves. (Maharashtra State Forest Department ; SOPPECOM 2009). The Forest Department has two wings, Territorial Wing which oversees forest outside protected areas, and Wildlife Wing which oversees forests inside protected areas. The Deputy Conservator of Forests, also known as Divisional forest Officer, is responsible for management of territorial forest divisions. A territorial Conservator of Forests controls 3 to 5 territorial forest divisions. Warna Basin lies within three main administrative units of Forest Department- Sangli Sub-division under Assistant Conservator of Forests, and Kolhapur Division under Deputy Conservator of Forests, Kolhapur. Both of these divisions are under Conservator of Forests (Territorial), Kolhapur. The third is Chandoli National Park, which is under Conservator of Forests (Wildlife), Kolhapur.

4.3.1.4 Organisations and actors related to River basin and water resources management

According to the Constitution of India, water is primarily a subject managed by state, except for inter-state rivers where central government can intervene in case of any disputes (Government of India 1950; Campbell, Rieu-Clarke et al. 2009).

National level

Ministry of Water Resources

As water is primarily managed at state level, the primary role of Ministry of Water Resources is to develop policy on water resources at the national level, to conduct research on water resources at nation level, formulate national water development perspective and determine the water balance of different river basins, and coordinate and mediate any inter-state water disputes. The Ministry of Water resources has several organizations conducting research related to

the biological diversity thereby maintaining its potential to meet the needs and aspirations of present and future generations".

water, including the Centre Water Commission, the Central Groundwater board, and the National Water Development Agency(Ministry of Water Resources, undated).

State level

In 2003, the Maharashtra state has introduced a new water policy, which marked the initiation of subsequent water sector reform, which was supported by the World Bank in 2005. As a result of this reform process, Maharashtra Water Resources Regulatory Authority (MWRRA) was established in 2005. In the same year, the Government of Maharashtra also passed the Maharashtra Management of Irrigation System by Farmers (MMISF) Act, which gave a fillip to participatory irrigation management in the state. The following government organizations are playing a role in the management of water resources.

<u>Maharashtra Water Resources Regulatory Authority (MWRRA)</u>

Recognizing the fragmented approach to water resources management, the government of India initiated various water sector reforms in early 2000s. As a result, the Maharashtra state has developed the new State Water Policy in 2003, which created two statutes namely Maharashtra Management of Irrigation Systems by Farmers Act, and Maharashtra Water Resources Regulatory Authority Act. Based on this new act, the Maharashtra Water Resources Regulatory Authority (MWRRA) was established in 2005 (Maharashtra Water Resources Regulatory Authority). MWRRA has a mandate to regulate and enforce entitlements to the distribution of water resources, to establish the criteria for the setting of the bulk water tariff system, and to review and approve water resources projects according to their conformity to the state integrated water resources plan(Maharashtra Water Resources Regulatory Authority Act, 2005). The bulk tariff setting process has now almost been finalized (the State government will shortly issue its draft tariff based on the factors derived by the MWRRA consultative process), but the MWRRA's authority over all water resources is currently limited as it is concerned with projects (irrigation and domestic water service provision) as opposed to water resource management as a whole. In addition its remit does not yet extend to controlling water quality or to groundwater (neither the State Pollution Control Board nor the Groundwater Survey and Development Agency are regulated by the MWRRA at this point). Nor does it actually issue licenses for water use.

<u>State Water Board and State Water Council</u>

The State Water Board and the State Water Council are new institutions established through the Maharashtra Water Resources Regulatory Authority Act 2005. The Board is headed by the Chief Secretary of the State, with members from key State Departments including Water Conservation, Water Supply, Urban Development, Energy and Environment, Agriculture, etc. The Board is responsible for preparing draft Integrated State Water Plan, based on the sub-basin wide plan prepared by River Basin Agencies. The Board submits the draft plan to the State Water Council, which is headed by the Chief Minister, and includes all the Ministers from key sectors.(Maharashtra Water Resources Regulatory Authority Act, 2005)

Water supply and sanitation department, Ministry of water supply and sanitation

Created in 1996, the department aims to improve poor coverage and access to water resources, both in urban and rural area, while the Ministry of water supply and sanitation at Maharashtra state level develops policy related to water resources. The Ministry is headed by the Minister of Water Supply and Sanitation, while the Department is headed by the Secretary (Water Resources and Sanitation Department, undated).

Groundwater Survey and Development Agency (GSDA)

The Groundwater Survey and Development Agency (GSDA) was established in 1972 by Maharashtra state government. It is one of the technical agencies under water supply and sanitation department. Its primary role is to explore, develop, and augment groundwater resources in the states. (Groundwater Survey and Development Agency 2008) It is currently conducting projects to study aquifer with communities in 4 different river basins, including Krishna river (Groundwater Survey and Development Agency 2008).

Water Resources Department

The Water Resources Department (formerly Irrigation Department) is responsible for planning, designing constructing and maintaining the multipurpose dams, canals, hydro-electric projects, and life irrigation schemes. The Department is headed by two ministers; the Minister responsible for Irrigation, and the Minister responsible for Development Corporations including Maharashtra Krishna Valley Development Corporation. (Water Resources Department, undated)

Irrigation Development Corporation/River Basin Agency: Maharashtra Krishna Valley Development Corporation

In order to facilitate expansion of irrigation projects, the State Government established five irrigation development corporations. Maharashtra Krishna Valley Development Corporation (MKVDC) is one of the Corporations, and was established under the Maharashtra State Krishna Valley Development Corporation Act 1996 (Government of Maharashtra 2004). MKVDC is responsible for the planning, design, construction and management of irrigation projects within Krishna basin (Water Resources Department). As Warana basin is part of the Krishna basin, it falls under the purview of MKVC. Maharashtra Water Resources Regulatory Authority Act 2005 calls these irrigation development corporations “River Basin Agencies”. According to the Act, River Basin Agencies are responsible for issuing entitlements for individuals to use of surface water in the relevant basin, but it is unclear if the MKVC is actually issuing entitlements at this stage (Maharashtra Water Resources Regulatory Authority Act, 2005). Any entitlements that are issued however, will be related only to technical projects for irrigation or for water service provision.

Water Conservation Department

The Government of Maharashtra established the Water Conservation Department in 1992 to give a fillip to the economic development of rural areas

based on people's participation and natural resources. The responsibility to implement the union and state government supported programmes and schemes like water conservation, soil conservation, watershed development, Drought Prone Area development, Integrated Wasteland Development, minor irrigation, social forestry, and other relevant areas. It is part of the Rural Development and Water Conservation Department.

Water and Land Management Institution (WALMI)

The Water and Land Management Institution (WALMI) was established by the Government of Maharashtra in 1980. The main mandate of the WALMI is to raise awareness towards integrated approach to water and land management, among water managers, in reference to irrigated crops under irrigation projects. WALMI provides trainings to stakeholders in the region including farmers, and conduct action research and pilot projects in the area of irrigation and irrigation agriculture. WALMI Aurangabad is an autonomous body registered under the Water Resources Department (formerly Irrigation Department)

Directorate of Irrigation Research and Development (DIRD)

The Directorate of Irrigation Research and Development (DIRD) is a multifunctional and multidisciplinary organization, under the Maharashtra State Irrigation Department. Originally started as Special Irrigation Division in Pune in 1916, it was upgraded to the Directorate in 1969. The DIRD is engaged in a wide range of activities related to pre and post irrigation. It also maintains the health of irrigated soil through monitoring activities. The DIRD also provides education to farmers through periodicals and TV programmes .

District and village level

Though water is primarily the responsibility of the state, about 18 subjects under the state list were transferred to Gram Panchayat (village level). Watershed development, water and sanitation are part of the subjects under responsibility of Gram Panchayat.(Campbell, Rieu-Clarke et al. 2009).

<u>Irrigation Circles</u>

Irrigation circles are a part of the Irrigation Department of the State government, and it works at the district level. Irrigation circles engage in the investigation, planning, designing, construction, management and maintenance of irrigation projects and hydro electric projects within the district (Thane Irrigation Circle). Sangli and Kolhapur Irrigation Circles are in conflict with civil society organisations, that demand equitable water distribution and support to project affected people (SOPPECOM 2009).

<u>Community based water resources management organisations</u>

Water User's Associations, Pani Samitites, and Watershed Development Committees are village level micro watershed level organizations promoted by the irrigation sector, for drinking water, and micro watershed development (SOPPECOM 2009).

Pani Panchayat is a collective action by villagers and started as a result of severe drought of 1972-73. The basic philosophy of Pani Panchayat is to share water based on equity principle. Pani Panchayat movement faced difficulties later on, partly due to the emergence of parallel lift irrigation schemes promoted through the government.(Narayanamoorthy and Deshpande 2004)

4.3.1.5 Organisations and actors related to livelihoods, rural development, and industrial development

Livelihoods, Rural Development and Industrial Development include different subjects managed by either the Central or the State Government. This section summarizes key organizations and actors related to different subjects.

Economic and Social Planning

According to the Indian Constitution, Economic and Social Planning is an area which is managed by both Central and State level government.

<u>Planning Commission (National level)</u>

The Planning Commission was established in 1950 at central level, with its mission to assess all resources in the country, to create the most effective and balanced plan for India. The first five year plan was developed in 1951, and is currently under the Eleventh five year plan (2007-2012). The Chairman of the Planning Commission is the Prime Minister, who works under the overall guidance of the National Development Council. It has a Vice Chairman who is responsible for functioning of the Commission. The Commission is composed of members representing States, and has divisions of all sectors. The Planning Commission members are selected to represent different sectors, not to represent different states. The actual planning process involves working groups, steering committee and task forces for different subjects. Planning Commission also plays a role of mediary for resource allocation between State Governments and Central Ministries. The Commission approves the State Annual Plan by allocating budgets from the Central government. (Planning Commission, undated)

<u>Maharashtra State Planning Department and State Planning Board (State Level)</u>

The State Planning Board was established in 1972, and reconstructed in 1995. The Chief Minister is the chair of the board, and works under the Planning Department. The Board sets priorities and targets for the State five year and annual plan. The process follows guidance of the National Development Council. (Maharashtra State Planning Department, undated)

<u>District Planning Committee and Panchayat Raj (District and village level)</u>

The planning for District, Block and Panchayat Raj level takes place in parallel with each other. First, the district vision will be developed by departmental officers and some external parties (i.e. NGOs). The district vision will cover areas including agriculture, industries, infrastructure, water resources, drinking water and sanitation, poverty reduction and basic needs. Based on the district vision, the block vision will be developed by a team of experts at block level. Based on

the block vision, a vision for Gram Panchayat will be developed by the team of experts, and with public participation. Based on the vision for Gram Panchayat, a plan for Gram Panchayat will be developed, which will be consolidated by the Block Plan, followed by integration into District Plan. The District Plan will be finalized by the District Planning Committee.(Wikipedia 2010)

Agriculture

In India, Agriculture is managed at the State Government.

Ministry of Agriculture (National Level)

The history of the Ministry of Agriculture goes back to 1871 when the Department of Agriculture and Revenue was established during the colonial period. Since then, the organization went through various additions and amendments to its functions (Government of India 1950). Currently, the Ministry has three departments: Department of Agriculture & Cooperation, Department of Agricultural Research & Education, and Department of Animal Husbandry & Dairying. (Department of Agriculture and Cooperation 2010)

Maharashtra State Agriculture Department (State Level)

The history of the Agriculture Department dates back to 1883, as a recommendation from Famine Commission in 1881. The Department's primary area of work is to support farmers to improve their agriculture performances, and to transfer various farming technology. (Department of Agriculture, undated)

District Agriculture Department (District and Local level)

The State Agriculture Department has corresponding units and officers at District level, Sub-Division level, and Taluka (Groups of villages)level. As a way to support farmers, Agriculture Assistants are allocated at each village. Each Agriculture Assistant covers three to four villagers, 800 to 900 farmers. Agriculture assistants conduct various agricultural extension work including soli conservation, horticulture plantation etc. Agricultural officers reports to Circle Agriculture Officers, who liaise with other departments that provide technical support. (Department of Agriculture, undated)

National Bank for Agriculture and Rural Development (National Level)

The National Bank for Agriculture and Rural Development (NABARD) was created by the National Bank for Agriculture and Rural Development Act 1981 (No 61 of 1981). The Bank supports agriculture and rural development through providing credit for farmers, and small-scale industries. (National Bank for Agriculture and Rural Development 2007)

Rural Development

Ministry of Rural Development (National Level)

The history of the Ministry of Rural Development dates back to 1974, when the Department of Rural Development was established under Ministry of Agriculture

and Food. It has gone through various organizational changes and in 1999, Ministry of Rural Areas and Employment was renamed as Ministry of Rural Development (Ministry of Rural Development, undated). The Ministry has three departments; the Department of Rural development supports improvement of rural infrastructure, and also supports Panchayati Raj institutions; the Department of Land Resources undertakes development of wastelands in the country, as well as conducting land reforms. The Department of Drinking Water Supply supports the rural poor in accessing drinking water, and improving sanitation (Ministry of Rural Development, undated).

The Department of Drinking Water Supply and Ministry of Water Resources undertook a coordination meeting on water related issues in September 2007, and agreed to revive coordination committees on water related issues under chairmanship of Additional Secretary. (Department of Drinking Water Supply 2007)

Maharashtra State Rural Development Department (State Level)

Maharashtra State Rural Development manages schemes including Draught Prone Area Programme, Rural Building Programs, Integrated Wastelands Development Programme, Minor Irrigation ands Social Forestry. (Maharashtra State Rural Development Department, undated)

District Rural Development Agency

At each district of Sangli and Kolhapur, the Rural Development Agency is responsible for development activities at district levels, such as watershed development. It also coordinates planning of various rural development initiatives(SOPPECOM 2009).

Electricity

Electricity is the responsibility of both the Central and State Government.

Ministry of Power

The ministry of Power became independent Ministry in 1992. Previously, it was a department under the Ministry of Energy. The Ministry is responsible for formulating policy for power sector, planning, deciding, and implementing, monitoring on thermal power, hydropower (except for micro hydro project less than 25MW), transmission and distribution of power. It also administers legislation including Electricity Act 2003, and the Energy Conservation Act 2001. The Ministry also supports power schemes and issues related to rural electrification. In addition, the Ministry administers government power corporations such as National Hydroelectric Power Corporation, Rural Electrification Corporation, etc.(Ministry of Power, undated)

Maharashtra State Electricity Board (State Level)

At the State level, power generation and distribution is administered by the Maharashtra State Electricity Board, which is now composed of three State owned companies namely Maharashtra State Power Generation Co. Ltd.,

Maharashtra State Electricity Transmission Co, LtD., and Maharashtra State Electricity Distribution Co. Ltd.(Maharashtra State Electricity Board)

Maharashtra Energy Development Agency (State Level) and Ministry of New and Renewable Energy (National Level)

Maharashtra Energy Development Agency is an organization that develops and facilitates renewable energy within the State. It is a nodal agency under Ministry of New and Renewable Energy (MNRE) at the Central level.(Maharashtra Energy Development Agency)

Industrial Development and Pollution Control

Ministry of Environment, Unit for Impact Assessment for Industry Infrastructure River Valleys and Mining (National Level) and State Environment Department (State Level)

Based on the State Environmental Act, all developers need to go through environmental clearance. Depending on the nature of the project, environmental clearance is conducted by either the Central Government (Ministry of Environment and Forestry) or the State Environment Department (Government of Maharashtra 2004).

There are a number of Expert Advisory Committees (EACs) for various categories of industry and development projects such as irrigation, mining, industry infrastructure etc. Most of these EACs meet once a month at Delhi and review applications for permission to carry out these projects. These are so-called A list projects depending on their size and investment. There are similar committees at the State level for considering smaller projects called B list projects. A B-list project can become A-list if it is an ecologically sensitive zone such as within 10 km of an important biodiversity area such as a sanctuary, national park or tiger reserve

The State Level Environmental Impact Assessment Authority, Maharashtra

The State Level Environmental Impact Assessment Authority, Maharashtra was created in 2008, by official notification from the Ministry of Environment and Forests. The Authority is tasked to conduct environmental clearance for development projects in the State. The Maharashtra State government established the State Level Expert Appraisal Committee, in order to support the Authority. The Authority consists of three members, and the Committee consists of twelve members.(Ministry of Environment and Forest, 2008)

Maharashtra Pollution Control Board (State Level)

Maharashtra Pollution Control Board (MPCB) is part of the State Environment Department. MPCB is responsible to implement various environmental legislations, including control of water pollution (i.e. Water Act 1974), air pollution (Air Act 1981), and solid and hazardous waste (Municipal Solid Waste Rules 2000, Hazardous Waste Rules 2000) (Maharashtra Pollution Control Board, undated). The MPCB's permission is necessary for starting any industry and development projects. It carries out monitoring on compliance of pollution

control measures, and organizes public hearing to receive public view on any development projects.

Water Pollution Board Regional Office

Within the Kolhapur Collector Office, there is a regional office of Water Pollution Board. (The Collector 2009). It is a district level government body responsible for monitoring and enforcement of pollution standards, especially from industries. (SOPPECOM 2009)

Maharashtra Industrial Development Corporation (State Level)

Maharashtra Industrial Development Corporation was created in 1962 by the State Government. The Corporation acquires land and leases it to industries. It also provides infrastructure necessary for industries (i.e. water supply), and has a regional office in Kolhapur within Collector's office. (Maharashtra Industrial Development Corporation, undated)

Collectorate Branch (Kolhapur): Mining

The Collectorate is responsible for mining activities in the upper part of the basin. The department has an interest in protecting interests of mining companies, and there are some conflicts between the companies and the local population, particularly in the upper river mining area. (SOPPECOM 2009)

Tourism

The Ministry of Tourism formulates national policies and programmes for tourism, and on the issues related to tourism promotion in India. The Ministry coordinates with State Government and the private sector. (Ministry of Tourism, undated)

Most states have a Tourism Development Corporation which is owned by the State Government. In Maharashtra, the Maharashtra Tourism Development Corporation (MTDC) was established by the State Government. MTDC supports tourism promotion in the state, and also develops and maintains tourism facilities and services. (Maharashtra Tourism Development Corporation, undated)

4.3.1.6 Organisations related to Human Rights and Indigenous people

Ministry of Tribal Affairs

The Government of India has established the Ministry of Tribal Affairs in 1999. It has developed a draft National Policy on Tribal Development, which aims to bring scheduled tribes into mainstream of society, without disturbing their culture. (Government of Maharashtra 2004)

Ministry of Social Justice and Empowerment

It is a Central Government Ministry, which supports the empowerment of marginalized people, including scheduled casts, backward classes and people with disabilities. (Ministry of Social Justice and Empowerment, undated)

National Commission for Scheduled Tribes

The Commission aims to support Scheduled Tribes through the investigation and monitoring any matters related to Scheduled Tribes. It participates in the planning process for social and economic development for Scheduled Tribes. The Commission also takes measures related to ownership rights in minor forest produce to the Scheduled Tribes living in forest areas, supports rights of Tribal communities over mineral resources, water resources ,etc according to law. It also supports Scheduled Tribes in improvement of their livelihoods, and rehabilitation of Scheduled Tribes which are displaced through development projects.(National Commission for Scheduled Tribes, undated)

National Commission for Scheduled Castes

The Commission supports group of people who, in old tradition, were referred to as 'untouchables,' currently categorized as Scheduled Castes. The Commission investigates and monitors all matters related to the safeguards of the Scheduled Castes, and inquires into any specific complaints with respect to the deprivation of rights and safeguards of the Scheduled Casts. (National Commission for Scheduled Casts, undated)

National Commission for Minorities

It is a Statutory body, created by the National Commission for Minorities Act, 1992. The term 'minority' relates to religious minorities. The Commission monitors the implementation of the provisions of the constitution pertaining to minorities. It also conducts research related to minorities. (National Commission for Minorities, undated)

National Human Rights Commission

The National Human Rights Commission was created by the Protection of Human Rights Act 1992. The Commission can intervene into allegations of violation of human rights before a court.

National Legal Service Authority

The National Legal Service Authority was created by the Legal Services Authorities Act, 1987. The Authority provides legal support to the poor particularly in rural areas, slums or labour colonies, as well as to Scheduled Castes and Tribes, women and other vulnerable people. It also aims to spread legal literacy and awareness among the weaker populations within the society, and conducts legal education to the poor.(National Legal Service Authority, undated)

National Commission for Woman

The National Commission for Women was created by the National Commission for Women Act, 1990. Among many services, the Commission provides legal awareness and raises understanding for their legal Rights, facilitates the speedy delivery of justice to women, and investigates and examines matters related to the protect of women's rights. (National Commission for Women, undated)

4.3.1.7 Other organisations and actors

Pharmaceutical companies

One of the main threats to biodiversity is illegal harvesting of Narkya (Mappia foetida) within Chandoli National park. Narkya has high medicinal properties used in cancer drugs. Pharmaceutical companies and their agents, are purchasing illegally harvested Narkya from local people. (SOPPECOM 2009)

Villagers affected by the establishment of national park

Villages which were inside national park when it was established had to be relocated. Also, when Chandoli dam was built, affected villages had to be removed. There are Civil Society organizations supporting villagers such as 'The Dhrangrast Samiti' and 'Organisations of the persons affected by Chandoli National Park.' They have conflicts with the government organizations responsible for relocation and rehabilitation of affected villages(SOPPECOM 2009).

Dange dhangars

Dange Dhangars (shepherds) are ethnic communities. Some of the areas where they reside have been designated as national park, as a result they became unable to continue their traditional life as shepherds. Losing their traditional way of living also resulted in loss of traditional culture. (SOPPECOM, 2009) The Dange Dhangar community living nearby the national park area, are facing difficulty keeping their livelihoods as they are unable to graze their animals inside the national park, while the animals from national park often damage their crops and livestock (interview 2009).

Sacred Grove

In many parts of India, there is a tradition to provide patches of forest to deities or ancestral spirit. This type of forest is called sacred grove, and over 50000 sacred groves have been reported all over India. In Kolhapur area, sacred groves ad managed by village elders. Historically, Kolhapur king has provided support to certain sacred groves in the area.

Agro-Industry cooperatives

At middle and lower section of the Warana River, agro-industry such as sugar cane, dairy production is taking place. The area where originally used to be individual rice and crop farming area, gradually changed into field of agro-industry over the past 100 years (Jugale 2009), such as sugar cane, and dairy production. Farmers who cultivate sugarcane took part in creating farmer's cooperative, which created sugar factories such as Ninai Devi Cooperative Sugar Factory Kokadurd, Vishwarsrao Naik Vooperative sugar factory Chikhali, Udaysinh Gaikward cooperative sugar factory, Sarvodaya cooperative sugar factory, Kouthikiram. These sugar factory cooperatives then also created credit banks, educational institutions, and various other industrial set ups such as poultry farms. These agro-industrial cooperatives play a key role in the rural politics of the region (SOPPECOM 2009).

Some of the cooperatives have developed into a relatively large industrial complex. The Warana group is one such example. It originally started as a sugar factory and later branched into dairy, fruit pulp processing units, department stores (30 branches), banks (20 branches), and also established an educational institution (Shree warana Vibhag Shikshan Mandal), and a hospital (SOPPECOM 2009; Tatyasaheb Kore Institute Of Engineering And Technology 2009). The founder of the cooperative, Kore family, is politically influential and controls almost all of the institutions including gram panchayats (SOPPECOM 2009). Hom'ble Shri. Vinayraoji Kore who is the grandson of the founder of Warana group, is currently the Minister of Non-Conventional Energy & Horticulture, Maharashtra state (Shree Warana Vibhag Shikshan Mandal, undated).

Civil Society Organizations

Established in 1984, Centre for Environment and Education is a national level Centre for Excellence in the area of environmental education. CEE works with various sectors including educational and industrial sectors, to support their efforts towards environmental education and awareness.(Centre for Environmental Education ; SOPPECOM 2009)

Maharashtra Rayja Dharan va Prakalpgrastha Shetkari Sanghatana is state level Civil Society organization, working on rehabilitation, livelihoods and poverty alleviation. The organization is in conflict with government organizations responsible for rehabilitation (SOPPECOM 2009).

Nisarg and Development Research Awareness and Action Institute (DEVRAAI), are working on research and advocacy in the area of environment, and has concerns related to environment destruction from dam construction, mining activities, and industrial pollution (SOPPECOM 2009).

Swabhimani Shetkari Sanghatana

This is a trade union and professional association, primarily for middle and rich farmers who produce cash crops. They are sometimes in conflict with government, over price of agriculture product. One of the leaders, Raju Shetty was recently elected as member of the Indian Parliament. (SOPPECOM 2009)

Department of Environment Science, Shivaji University, Kolhapur

Local universities such as Shivaji University, are conducting various research in the area of biodiversity and livelihoods. Researchers are able to provide comments to policy makers when relevant.

Other local communities

Other local communities which are concerns of the LiveDiverse project include; communities living in the earthquake prone zones, traditional fishing communities (like Bhois and Bgadis), locals involved in the collection of forest product including Narkya, farmers from both inside and outside the irrigation command area, and Artisans like Bhuruds. (Cite SOPPECOM)

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4.3.2 Legal Framework

4.3.2.1 Introduction

The legal system in India is underpinned by the union structure of the country and the founding Constitution. The country is made up of 28 states (along with 7 union territories). The Constitution differentiates between those government matters that are the responsibility of the national, or union, administration, and those that are devolved to state level.[81] From a substantive point of view with respect to the respective rights, duties and powers of individuals and government, the Constitution is broadly split into three sections: the Fundamental Rights, the Directive Principles of State Policy, and the Fundamental Duties. The Directive Principles are avowedly non-justifiable,[82] but "are nevertheless fundamental in the governance of the country and it shall be the duty of the State to apply these principles in making laws".[83]

Constitution: http://indiacode.nic.in/coiweb/welcome.html.

4.3.2.2 Procedural Rights: Access to Information, Participation in Decision-Making and Access to Justice

Fundamentally, Indian citizens are granted by the Constitution the right to equality (Art.14), and the right to non-discrimination (Art.15). They also enjoy the right of freedom of speech, expression and association (Art.19). The primary legislation in India with respect to access to information at first sight appears to be the Freedom of Information Act (no.5 of 2003). This sets out a right to information for all (Art.3), and a general obligation for public authorities to appoint Public Information Officers (Art.7), and for these authorities to:

> (a) maintain all its records, in such manner and form as is consistent with its operational requirements duly catalogued and indexed;

[81] Ref.
[82] Constitution, art.37.
[83] *Ibid*.

(b) publish at such intervals as may be prescribed by the appropriate Government or competent authority,-

(i) the particulars of its organization, functions and duties;

(ii) the powers and duties of its officers and employees and the procedure followed by them in the decision making process;

(iii) the norms set by the public authority for the discharge of its functions;

(iv) rules, regulations, instructions, manuals and other categories of records under its control used by its employees for discharging its functions;

(v) the details of facilities available to citizens for obtaining information; and

(vi) the name, designation and other particulars of the Public Information Officer;

(c) publish all relevant facts concerning important decisions and policies that affect the public while announcing such decisions and policies;

(d) give reasons for its decisions, whether administrative or quasi-judicial to those affected by such decisions;

(e) before initiating any project, publish or communicate to the public generally or to the persons affected or likely to be affected by the project in particular, the facts available to it or to which it has reasonable access which in its opinion should be known to them in the best interests of natural justice and promotion of democratic principles. (Art.4)

There are standard exceptions under Arts.8 and 9, relating to state security, unreasonable requests or unwarranted invasions of privacy.

In addition to the Freedom of Information Act, subsequent legislation was published in the form of the Right to Information Act of 2005. In some ways this replicates much of the Freedom of Information Act This latter piece of legislation sets out more stringent requirements with respect to the information that public authorities must make public; with similar exceptions. Under the RTIA, persons have an underlying right to information (s.3), that is, the "right to information ['material in any form' which can be accessed by a public authority under law] accessible under this Act which is held by or under the control of any public authority" (s.2) There are exceptions, for example with respect to information commercial confidence, or intellectual property considerations would harm the "competitive position of a third party", so the right is not absolute. [It also appears that a proposed amendment to the RTIA is currently under discussion in the legislature, such that public authorities might refuse to release information under an RTIA request if that authority feels that the request is "frivolous".] The RTIA appears to formalise some of the material in the FOIA in terms of the appointment of specific information officers, although there is a great deal of cross-over and repetition between the two pieces of legislation. It also established the Central Information Commission and State Information Commissions. It appears therefore that the RTIA is in fact a more practical and detailed exposition of the principles set out in the FOIA, and consequently could be regarded as the first point of reference for transparency rather than the FOIA. It should be noted that the provisions on access to information relate to public

authorities – these public authorities include non-governmental bodies that are controlled or substantially directly or indirectly funded by government (Art.2 in both laws). It does not apply to private organisations otherwise.

Beyond the general question of access to information comes the question of access to justice. Art.39A of the Constitution provides that:

> "The State shall secure that the operation of the legal system promotes justice, on a basis of equal opportunity, and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities."

The State is therefore obliged to set up systems that provide for free legal aid. In addition, the Gram Nyayalayas Act (no.4, 2009) essentially puts the constitutional principle into effect. The Gram Nyayalayas are courts set up primarily at intermediate panchayat level (s.3). They are established by State governments in consultation with the High Court, but it appears that they are optional under s.3. Judges (nyayadikhari) are obliged to hold mobile courts "periodically" in the villages over which they officiate (s.9). The nyayadikhari has both (st.11) criminal (s.12 - under the first schedule, it appears that the criminal jurisdiction is wide – it excludes capital offences crimes where 2 years imprisonment may be the penalty, along with thefts of goods worth more than 20,000 rupees) and civil jurisdiction (s.13). For our purposes, the civil jurisdiction is of greater interest – it includes:

(i) Civil Disputes:
- (a) right to purchase of property;
- (b) use of common pasture;
- (c) regulation and timing of taking water from irrigation channel.

(ii) Property Disputes:
- (a) village and farm houses (Possession);
- (b) water channels;
- (c) right to draw water from a well or tube well.

(iii) Other Disputes:
- (a) claims under the Payment of Wages Act, 1936 (4 of 1936);
- (b) claims under the Minimum Wages Act, 1948 (11 of 1948);
- (c) money suits either arising from trade transaction or money lending;
- (d) disputes arising out of the partnership in cultivation of land;
- (e) disputes as to the use of forest produce by inhabitants of Gram Panchayats.

The court is under an obligation (s.26) to get the parties to reconcile before taking judicial action. Appeal is available in certain circumstances for criminal decisions (to Court of Session, s.33) and for civil decisions (to the District Court, under s.34, although this is in effect the limit for appeals).

In addition to the facilitation of local courts, legislation has also been passed that is intended to provide free legal services for even the most disadvantaged,

following the broad principle of the Constitution. The Legal Services Authorities Act 1987 (as amended in 2002) facilitates the provision of free legal services to the poor and disadvantaged through the National Legal Service Authority.

4.3.2.3 Resource Tenure and Property Rights

Under Art.300A of the Constitution, "[n]o person shall be deprived of his property save by authority of law". The law implicit at the end of this provision is The Land Acquisition Act, 1894 (as amended in 1985), which sets out the process by which privately-held lands can be acquired for public purposes by public authorities. The Registration Act of 1908 sets out the requirements governing the registration of property documentation, and makes it clear that if appropriate documents are not registered as required, the transaction they seek to represent will be treated by the law as having never happened (s.49).

The issues of land tenure and ownership in India are fraught, and very complex (Grönwall, 2008 – Grönwall, J., *Access to Water: Rights, Obligations and the Bangalore Situation*, Linköping Studies in Art and Science no.439 (Linköping University, Sweden, 2008)), with legislation still in place from the time when India was part of the British empire. The Transfer of Property Act 1882 and Registration Act of 1908 generally apply with respect to setting out the requirements for immoveable property transfer and correlative document registration. Neither of these Acts directly addresses the position with respect to customary property systems Land tenure is constitutionally the responsibility of States (Constitution, seventh Schedule, List 2, para.18).

With respect to water use rights, the inter-relationship between formal and customary systems is also problematic. Water resources management in the case area is governed in part by the Maharashtra Water Resources Regulatory Authority Act 2005 and the Maharashtra Irrigation Act 1976. Like land, water management is mainly a State responsibility (Constitution, seventh Schedule, List 2, para.17 especially, although note that inter-state water matters are Union matters (Constitution, art.262, and Seventh Schedule, List 1, para.56)). Residual English common law principles still apply to surface and ground waters, with riparian rights still being in place to some extent (Cullet, P., *Water Law in India – Overview of existing framework and proposals for reform*, IELRC Discussion Paper 2007-01, available at http://www.ielrc.org/content/w0701.pdf, 4). Ground waters are controlled by the owner of the land above (Cullet, 2007), subject to the provisions of the Maharashtra Groundwater Regulation (Drinking Water Purposes) Act 1993, which protects aquifers that are used for domestic drinking water supplies.

Both ground and surface waters in Maharashstra are the responsibility of the Maharashtra Water Resource Regulatory Authority (the MWRRA). The MWRRA, which is established under the Maharashtra Water Resources Regulatory Authority Act 2005, is in effect an umbrella water resource management body, with responsibility for issuing water use entitlements being devolved to river basin agencies. In the case of the Warana river, it appears that the relevant river

basin agency is the Maharashtra Krishna Valley Development Corporation, a body which is allocated powers over irrigation, hydropower development and flood control under the Maharashtra Krishna Valley Development Corporation Act 1996. Entitlements for water use are therefore in theory issued by river basin agencies, although it does not appear that this happens currently. Water use rights for individual farmers are more likely to be issued by local farmer-managed groups, if applicable. Finally the Maharashtra State Water Policy of 2003 sets out the state's priorities for water management. These priorities are as follows (para.4.0): domestic use; industrial/agro-based industrial; agriculture and hydropower, environment and recreation. Because the list is listed in pairs and groups it is not clear if these lists also fit into the hierarchy – i.e. is hydropower less important that agriculture, and is recreation less of a priority than environment? It is also not clear what the difference is between agro-based industrial uses and agriculture. The Policy has not yet, however, made its way into law.

In addition to property rights, the Indian government has set up a national employment guarantee system. The underlying principle arises in art. 39 of the Constitution, stating that citizens "have the right to an adequate means of livelihood", with details being fleshed out in the National Rural Employment Guarantee Act of 2005 at the Union level, and the Employment Guarantee Act 1977 in Maharashtra (with associated rules from 1979 in relation to the case study area).

The employment guarantee system aims to provide at least one hundred days of unskilled manual work for rural people for the equivalent of a minimum wage.[84] Local panchayats are primarily responsible for the implementation of the scheme (NREGA, s.13(1)), with the gram panchayat being responsible for identifying potential schemes in its area (NREGA, s.16(1)). In addition to the employment guarantee scheme, the human rights of all citizens are intended to be protected through the Protection of Human Rights Act 1993 (as amended).

4.3.2.4 Legal Framework for Natural Resource Management

Environment, biodiversity

Aside from the above requirements relating to the protection of individual rights and interests, there is a large body of legislation addressing issues surrounding natural resource management. The Constitution provides that "[t]he State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country" (art.48A). The first relevant legislation is the Biological Diversity Act of 2002 (no.18 of 2003). The Act prohibits foreign activity (BDA, s.3) with respect to the biological resources of India, without the necessary permit from the National Biodiversity Authority (the "NBA"). In this context, *"biological resources"* refers to plants, animals and micro-organisms

[84] Note that in the Maharashtra statistics from NREGA website, there are no updated figures. It may also be that nobody at all has registered as the figures are all "0" (http://nrega.nic.in/netnrega/home.aspx). See ODI briefing note on Maharashtra system for problems (http://www.odi.org.uk/resources/download/1072.pdf).

(BDA, s.2), excluding human material. The rights of local people to exploit biodiversity resources are in some ways protected under s.7. This section states that Indian nationals and organisations can *"obtain any biological resource for commercial utilization, or bio survey and bio utilization for commercial utilization"* without giving prior notice to the State Biodiversity Board, but this does not apply to local communities, whether cultivators or those practicing indigenous medicine. The Act establishes the NBA (ch.III), which is principally responsible for the regulation of biodiversity-related activities, research and intellectual property control (BDA, s.18), for "*fair and equitable benefit sharing*" (s.21 especially), although the determination of what is fair and equitable benefit sharing is not entirely clear in s.21[85]. State Biodiversity Boards in effect perform the function of the NBA at the State level (ch.VI), in particular with respect to advising state governments and regulating the use of biodiversity resources (ss.23-4). A National Biodiversity Fund is established under s.27 (with State and Local Biodiversity Funds to be set up by state governments under s.32 and s.42 respectively), with proceeds being used, among other things, to conserve and promote biological resources and the development of areas from where such resources, or associated knowledge, have come from. It can also be applied for the socio-economic development of such areas, in consultation with relevant local bodies (s.27).

Aside from directing state governments to protect zones that are both important for biodiversity but also at risk of over-use or abuse, the national government is obliged, "as far as practicable wherever it deems appropriate, [to] integrate the conservation, promotion and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies" (BDA, s.36(3)). As part of this integrative process, presumably, biodiversity management committees must be established by every panchayat and municipality (BDA, s.41), and these bodies The national government must also *"endeavour to respect and protect the knowledge of local people relating to biological diversity"* (BDA, s.36(5)). The State government, on the other hand, can establish Biodiversity Heritage Sites for areas of particular biological diversity importance (BDA, s.37) and pay compensation in such an event to those economically disadvantaged by such a determination (ibid). These heritage sites are funded through application of State Biodiversity Funds (s.32(2)).

In Maharashtra, the Biodiversity Rules of 2008 also apply.

The next stage down from this focus on biodiversity as a whole might be seen as the environment itself. The Environment (Protection) Act of 1986 governs at this level through the control of pollution. Related rules (The Environment (Protection) Rules of 1986, and the draft rules of 1999, Environment (Siting for Industrial Projects) Rules) also apply (assuming the latter is no longer just in draft form), with the 1999 rules setting out the limits from cities and vulnerable ecological areas within which certain particularly polluting industries are prohibited. Of most relevance to the case study area, the Rules limit the siting of

[85] See also Biological Diversity Rules, rule 20 (http://envfor.nic.in/divisions/biodiv/gsr-261%28e%29.html) – sets out criteria: "*The formula for benefit sharing shall be determined on a case-by case basis*" (sub-rule 3).

new units of certain industries within a 25 km belt around the periphery of national parks, sanctuaries and the core zones of biosphere reserves (reg.2(1)). These restricted industries, listed in annexure 1, include "Primary metallurgical industries" (including aluminium production), although it is unclear if this refers to both the mining of relevant raw materials or to the processing of those materials. However, such new units may be sited within a band from 7-25km outside the listed protected areas where "*careful assessment of their adverse ecological and environmental impacts*" as been made (reg. 2(2)). No further requirements for these assessments are included. It is also notable that these regulations do not apply to existing facilities and the wording would suggest that it would not apply to renewals of existing licenses either.

Wildlife

The principal legal instrument relating to wildlife in India is the Wild Life (Protection) Act 1972 (as amended in 2002), with wildlife protection sitting in the Constitution's Concurrent List (Seventh Schedule, list 3, 17B) and therefore not reserved to either state or central government. This regulates the trade in wild animals and puts in place a virtually complete ban on the hunting of certain animals, (s.10) unless the Chief Wildlife Warden allows it on the grounds that the animal is critically ill, dangerous to human life or property (s.11). The Chief warden may also grant permission where the hunt is being undertaken for reasons related broadly to research or educational purposes (*ibid*). Similar prohibition is imposed in relation to protected plants (s.17A), with exceptions for the personal use of scheduled tribe members (*ibid*.), and for research, educational or approved cultivation purposes (ss.17B and C). The Act also allows the establishment of sanctuary areas (s.18) and national parks (s.35) by the state government (and by the Central Government to some extent under s.38). Furthermore, there are restrictions as to who may enter or live in sanctuaries (ss.27-28), and the Act restricts grazing rights in those areas (s.33(d)). The provisions regarding national parks are more limiting than those relating to sanctuaries, with no grazing of livestock allowed (s.35(7)) and the destruction, exploitation and removal of wildlife inside a National Park is in effect prohibited (s.35(6)). Offences may be punishable with a custodial sentence of up to 3 years and/or a fine of up to 25,000 rupees (s.51). Wild animals of the types prescribed in the Act that are killed or even found dead belong to the government (state or central, depending on which level of government has declared the area as sanctuary or national park) (s.39(9)). Finally, with respect to protected areas for particular species, the Wild Life (Protection) Amendment Act, 2006 creates the National Tiger Conservation Authority, opening the door for the establishment of tiger reserves. The Chandoli National Park sits within the more extensive territory of one of these reserves, the recently established Sahyandri reserve.

In addition to this legislative base, the union government has set out its environmental aims for the future in the National Environment Policy, which was approved in 2006. The policy objectives set down in that document are as follows:

- Conservation of critical environmental resources;
- Intra-generational equity
- Integration of environmental concerns in economic and social development;
- Efficiency in environmental resource use;
- Environmental governance; and
- Enhancement of resources for environmental conservation (National Environment Policy, 8-9)

Achievement of these objectives is underpinned with a substantial number of key principles, which are included here because of the close relationship that many of them have to law and governance issues:

- Human beings are at the centre of sustainable development;
- Right to development;
- Environmental protection is an integral part of the development process;
- The precautionary approach;
- Economic efficiency;
- Entities with "incomparable" values;
- Equity;
- Legal liability;
- Public trust doctrine;
- Decentralisation;
- Integration;
- Environmental standard setting;
- Preventive action; and
- Environmental offsetting (National Environment Policy, 10-14).

Problems with the legal regime, in particular caused by contradictory sectoral legislation and inconsistent financial arrangements are specifically referred to as having been responsible for the acceleration in environmental degradation (para.5.1), and remedial measures are proposed, including increased integration of approaches and greater accountability of authorities to make effective reforms. Increased focus on transparency and information availability is also evident, as is recognition that a reliance on criminal sanctions has not been as effective an enforcement tool as might have been hoped, leading to a proposed shift to civil remedies Of particular interest in the context of the Chandoli National Park is the recognition that greater effort needs to be afforded to enforcement of environmental restoration, particularly in the context of mining (18). In the wildlife context, the policy envisages greater involvement of local groups in a programme of expanding the network of protected areas, and restoration of access to forest products by those living on the fringes (26-7). Potentially contrarily, however, biodiversity hot-spots will be better protected (28) with alternative livelihoods being developed for those living next to such areas.

Mining - 11th five year plan sets out objectives – nothing re. likes of bauxite, but background states that prospects for producing and exporting aluminium is high (7.2.12).

Forests

The Forest Act of 1927 (consolidated in 1951) allows government to reserve areas of forest (s.3) with the effect that limitations apply to the right to cultivate in those area and land transfers involving land in the reserved areas (ss.5 and 9). Forests are within the concurrent responsibilities of state and central governments (Constitution, Seventh Schedule, List 3, 17A). Existing rights must be proven, and may be extinguished in return for compensation (ss.9 and 16) in some cases. The unauthorised clearing of forest, grazing of animals and quarrying of mineral, among other things, is prohibited (s.26), and offenders subject to custodial sentences if caught. Protected Forests can also be set up under s.29 of the Act, with corresponding consequences for the users of resources from these forests. The protected forests regime is more restrictive than that applying to reserves, with quarrying, grazing and forest product removal explicitly prohibited under s.30, although s.32 appears to permit government to introduce rules regarding the carrying-out of these activities. The level of penalties applicable whether the area involved is reserved or protected is the same (see also s.33). The Act also regulates commerce relating to timber and other forest products. The Forest (Conservation) Act 1980 reduces the right, originally granted in the Forest Act 1927, of State government to declare areas no longer reserved. It also restricts the right of state government to use forest areas for non-forest uses without Central government approval (s.2). This Act is fleshed-out through the Forest (Conservation) Rules 2003 and their amendment in 2004, which broadly address issues relating to proposals for non-forest use, and the procedural aspects of these matters. It is these rules that govern applications for mining, for example, and the granting and renewal requirements with respect to leases for such non-forest uses (see Forest (Conservation) Rules 2003, rule 6 (as amended). The National Forest Policy of 1988 makes demands with respect to the environmental remediation following activities such as mining, but it is not clear how much this policy has in fact been superseded by the more recent, and National Environment Policy, the very much broader scope of which includes forestry as only one component.

Certain forest dwellers are granted special rights under the Scheduled Tribes and other Traditional Forest Dwellers (recognition of forest rights) Act 2006 (and associated Schedules Tribes and other Traditional Forest Dwellers (recognition of forest rights) Rules 2007). However, these rights may be modified in areas of national parks and sanctuaries, and the Act sets out the circumstances under which such groups may be resettled where protected areas are involved (e.g. where damage is being caused to certain species, or where co-existence is not considered by the government to be a viable option (s.4(2)). In circumstances where forest rights may be granted, the relevant forest dwellers must have been living in, and depended upon, the forest for three generations prior to the 13th of December 2005.

Water

The Water (Prevention and Control of Pollution) Act 1974 (as amended by the Water (Prevention and Control of Pollution) Amendment Act 1988) does not on the face of it apply to Maharashtra but Maharashtra's pollution prevention efforts began earlier than this legislation, with the promulgation of the Maharashtra Pollution Control Act 1969 and the establishment of the Maharashtra Pollution Control Board the following year. As was noted above in relation to tenure, responsibility for water management is split between the States and the Union, with the former retaining most control. Maharashtra is somewhat unusual among Indian states in having established a water resources authority, the MWPPA. The state pollution control boards are responsible for planning, providing advice, monitoring and standard setting, among other things (Water (Prevention and Control of Pollution) Act 1974, s.17). S.24 imposes a blanket ban on activities that pollute streams, and requires those seeking to establish new sources of pollution to get consent from the state board (s.25). Penalties for failure to abide by the provisions of the Act may result in a prison sentence of up to 7 years (s.41).

In addition to the above Act, pollution control falls under the aegis of the Water (Prevention and Control of Pollution) Cess Act 1977 (as amended by The Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003). This legislation provides for the levy and collection of a cess on water to be incurred by those using water resources. The ultimate aim is to augment the resources of the Central Board and the State Boards. The Embankment and Drainage Act of 1952 (no.1 of 1953) addresses questions related to state embankment works, and those relating to offences where state embankments or works have been damaged.

The Inland Waterways Authority of India Act, 1985 (as amended by Inland Waterways Authority of India (Amendment) Act, 2001) provides for the constitution of an Authority for the regulation and development of inland waterways for the purposes of shipping and navigation. As has been indicated above, inter-state waters fall within the remit of the union government. Such waters are subject to the terms of the Inter-State River Water Disputes Act of 1956 (as amended by the Inter-State River Water Disputes (Amendment) Act 2002). This creates an adjudication process for conflicts relating to inter-state waters, through central government-appointed tribunals (s.4). These tribunals are expected to reach a decision within 3 years of the dispute being referred to them (s.5(2)). The final decision of the tribunal is binding on the parties (s.6(1)).

As with forests, a national water policy does exist, but the 2002 version is in effect virtually identical to its 1987 predecessor. It would again appear that the National Environment Policy is in fact more representative of the problems encountered in water management in India as the 2002 policy is to a large extent a wish-list of water management best practices, with little attempt to align these with the precise problems being suffered in the country. Maharashtra has its own state water policy from 2003. The National Environment Policy does not of course deal with all water resource management issues, but addresses pollution

control in particular, seeking in its recommendations to integrate management of the resource in a manner reminiscent of integrated water resources management (integrated institutional approach, basin management in effect, land use management and natural tolerances). It also seeks to encourage water conservation (domestic and agricultural), and to link electricity / diesel prices to the impacts of groundwater mining (31-2). Efforts to tackle diffuse pollution through reductions in farmer-used fertilizers and pesticides are also referred to (32). The Maharashtra water policy explicitly refers to a new institutional arrangement with decision-making decentralized, and the advent of river basin agencies that will manage the basins on an integrated basis (para.2.1.1). Conservation and drought management are also given prominence (2.7 and 2.8).

Seed Genome

The Seed Act of 1966 underpins the legal regime relating to plant varieties and seed genome protection, and regulates the quality of seeds for certain plants that are available for sale. The Protection of Plant Varieties and Farmers' Rights Act 2001 sets up a system for the protection of plant varieties and to encourage development of new varieties through the establishment of a plant varieties registry. Farmers are provided with the right, under s.39, to save, use, sow, re-sow, exchange or sell farm produce, including seed, as they did before the Act came into force. The Act sets up a new authority, the Protection of Plant Varieties and Farmers' Rights Authority (s.3), with a remit to encourage the development of new varieties and to record existing varieties (s.8). Related Rules from 2003 set out procedural aspects of the Act and for the registration of varieties.

Finally, the National Policy for Farmers of 2007 sets out the government's policy objectives for the coming years. These include:

- improving economic viability of farming by substantially increasing the net income of farmers and to ensure that agricultural progress is measured by advances made in this income.
- protecting and improving land, water, bio-diversity and genetic resources essential for sustained increase in the productivity, profitability and stability of major farming systems by creating an economic stake in conservation.
- strengthening the bio-security of crops, farm animals, fish and forest trees for safeguarding the livelihood and income security of farmer families and the health and trade security of the nation.
- providing appropriate price and trade policy mechanisms to enhance farmers' income.
- Completion of the unfinished agenda in land reforms and to initiate comprehensive asset and aquarian reforms.
- mainstreaming the human and gender dimension in all farm policies and programmes.
- paying explicit attention to sustainable rural livelihoods.
- fostering community-centered food, water and energy security systems in rural India and to ensure nutrition security at the level of every child, woman and man; and

- provision of appropriate opportunities in adequate measure for non-farm employment for the farm households

The extent to which biodiversity and livelihoods can be balanced in the future will depend very much on the way that this National Policy for Farmers can work with National Environment Policy.
4.3.3. Analysis of legal framework in light of case study areas issues

Within the case study area, there are a number of areas where the protection of biodiversity and the livelihoods of those living and working in the area are in conflict. Broadly, these can be summarized as follows:

Biodiversity protection:

Wildlife Act, designation of national parks under s.35 and consequent limitations on grazing rights and removal of biomass from the park.

Biological diversity Act: prevents foreign activity re. biological resources (s.3); but note that Indian organisations can use such resources for commercial activity without approval (s.7), but local communities need approval.

Forests Act 1951: controls grazing of animals in reserved forests; protected forests regime is more restrictive than reserves regime – explicit prohibition of removal of forest produce, and on grazing (s.30), but there is some flexibility under s.32.

Mining:

For mining in forests, governed by Forest (Conservation) rules 2003 (as amended 2004). This legislation also deals with renewal of leases for non-forest use, and remediation requirements.

Where water pollution will take place, approval must be obtained from the state pollution control board under the water (prevention and control of pollution)act 1974, s.25. Taxation associated with such approvals is imposed under Water (Prevention and Control of Pollution) Cess Act 1977 (as amended by The Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003)

Also governed by regulations contained in the Environment (Siting for Industrial projects rules of 1999, which regulates new sites (including potentially mines).

Proximate peoples:

Right to graze in forests limited by Forests Act, and by Wild life Act.

Killing of certain animals strictly restricted – so if farmers kill tigers in tiger reserve, for example, can be fined and imprisoned.

Some forest dwellers' rights to forest use protected by Scheduled Tribes and other Traditional Forest Dwellers (recognition of forest rights) Act 2006. But are dhangar actually covered? They are not scheduled tribe, but may be traditional forest dwellers. But this protection will not apply where government consider co-existence of protected areas and scheduled tribes is not viable (same Act, s.4). Forest rights can be recognised and granted under this legislation if they have lived in forest for 3 generations prior to end of 2005.

Local cultivars are also bound by terms of Biological Diversity Act – appears that s.7 requires them to get approval from state biodiversity board for use of biological resources. Act seeks to have fair and equitable benefit sharing (s.21). Special areas where biological resources are at risk can be protected. At the same time, the BDA requires that national government respects and protects local knowledge on biodiversity (s.36(5))

Bear in mind objectives of 2007 national policy for farmers, which seeks to improve economic viability of farming and increasing farmers' income (but also seeks to improve land, water, biodiversity etc necessary for sustained increase in productivity etc).

4.4 THE TERRABA RIVER BASIN, COSTA RICA

4.4.1 Institutions and Actors

4.4.1.1 Introduction

This section describes the organisations and actors related to the issues facing the Terraba River Basin. First, it provides the overview of the government system in Costa Rica, followed by the description of organisations and actors in the areas of biodiversity, water resources management, livelihoods, development and indigenous community related issues. In order to avoid misinterpretation arising from different ways of translating names into English, most names of organisations and actors are described in English, along with the original Spanish names in italic letters.

4.4.1.2 Costa Rica Government System

Costa Rica is a democratic republic, with legislative, executive and judicial branches at the national level. The legislative power lies within the Legislative Assembly (*Asamblea Legislativa*), which consists of 57 members elected through proportional representation. The official term for the member of the Legislative Assembly (*Diputado*) is 4 years. The executive function lies within the Government Council (*Consejo de Gobierno*) which is composed of the President, Vice-Presidents, and the Ministers. The judicial power is exercised by the Supreme Court of Justice (*Corte Suprema de Justicia*), and its judges are appointed by the Legislative Assembly.

For purposes of public administration, the national territory is divided into provinces (Art. 168 of the Constitution). There are seven provinces in Costa Rica, which are ruled by governors appointed by the president. The main role of the province is to serve as an electoral district for the Legislative Assembly. The number of *Diputados* elected at each province is determined by population (i.e. one *Diputado* for every 30,000 people).

Provinces are divided into 81 counties (*cantons*), which are divided into total of 421 districts (*distritos*) (Art. 168, Constitution). The administration and local services in each county are handled by the municipal government (*municipalidad*), which is composed of elected municipal councilors (*regidores municipales*) and Major (Art. 169 of Constitution). The municipal councilors have a term of four years (Art. 171 of Constitution). Some of the executive responsibility of the national government is transferred to the municipality, such as tax collection, providing municipal services such as potable water, waste water, and garbage collection (Art. 4, Municipal Code). In certain cases, municipalities may establish municipal district councils as an organ attached to the respective municipality, for administration purposes (Art.172 of the Constitution) Figure 10 illustrates the government system of Costa Rica.

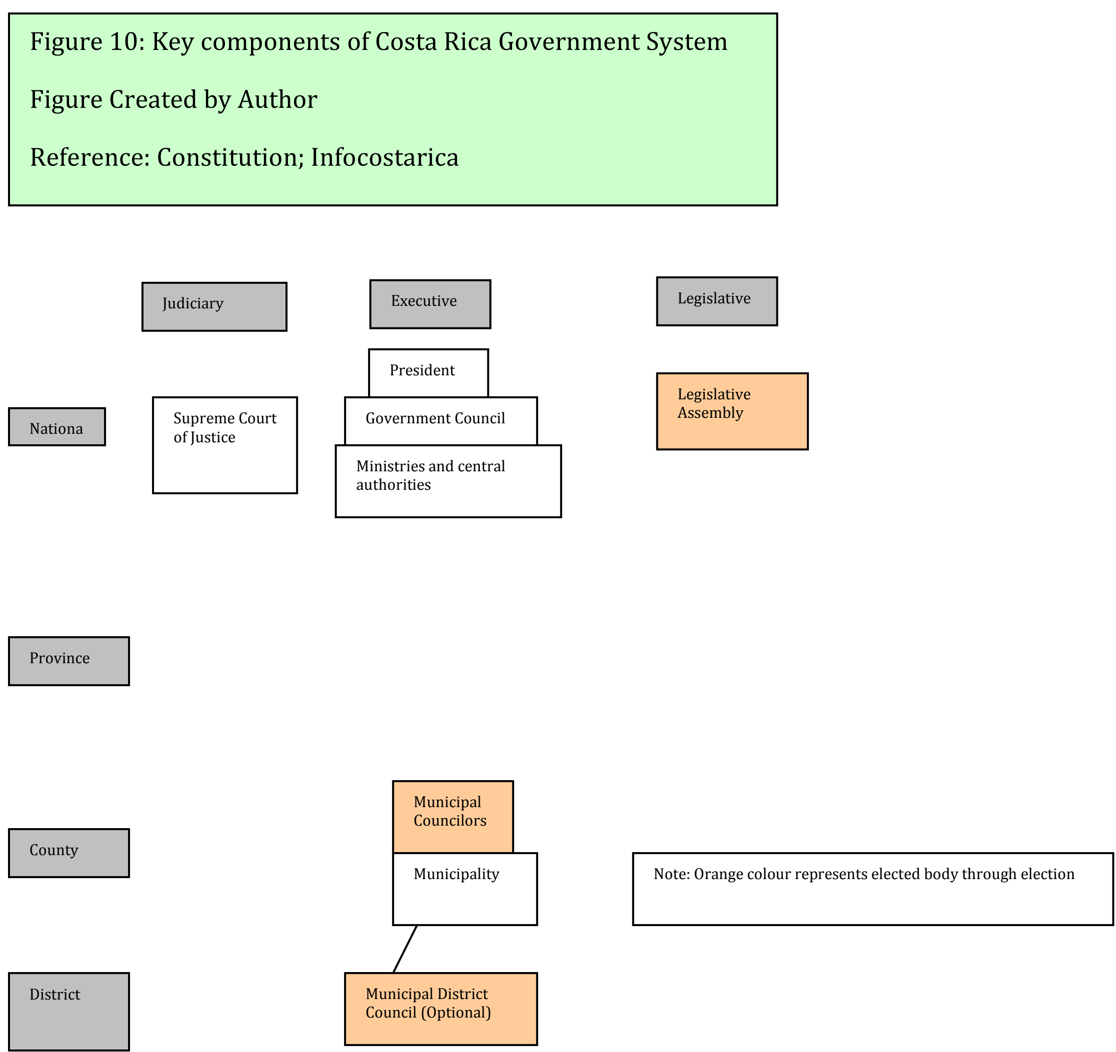

Figure 10: Key components of Costa Rica Government System

Figure Created by Author

Reference: Constitution; Infocostarica

4.4.1.3 Organisations and Actors in Biodiversity

The responsibility for managing biodiversity in Costa Rica lies at the national Ministry of Environment, Energy and Telecommunication (MINAET). The main characteristic of Costa Rica's biodiversity management is the MINAET and its decentralized sub-systems, which ensure stakeholder participation in the

strategic decision making over management of biodiversity and natural resources. . The overview of the system is illustrated in figure 11.

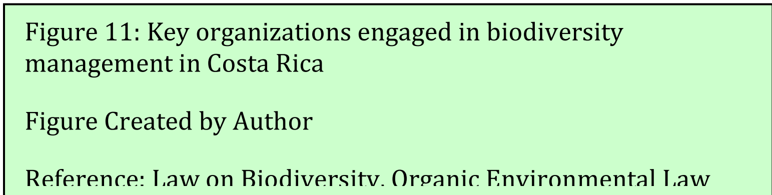

Figure 11: Key organizations engaged in biodiversity management in Costa Rica

Figure Created by Author

Reference: Law on Biodiversity, Organic Environmental Law

Ministry of Environment, Energy and Telecommunications

Ministerio de Ambiente, Energía y Telecomunicaciones (MINAET)

The Ministry of Environment, Energy and Telecommunications (MINAET) is the national ministry which has responsibility to formulate, plan and implement public policy related to natural resources, energy, mining and Environmental Protection .

Protected Areas in Costa Rica are categorised into Forest Reserve, Protective Zone, National Park, Biological Reserve, National Wildlife Refuge, Wetland and Natural Monument. All the protected areas are administered by the MINAET except the Natural Monument which is administered by the municipalities. (Article 32, Organic Environmental Law*: Ley Organica del Ambiante*: No. 7554 of 04/10/1995)

There are several organizations attached to the MINAET which play key roles in Costa Rica's conservation of biodiversity, described in the following section.

National Commission for Biodiversity Management

Comisión Nacional para la conservación de la biodiversidad (CONAGEBIO)

The National Commission for Biodiversity Management (CONAGEBIO) is the state organization attached to the MINAET, which was established through the law on Biodiversity (Ley de Biodiversidad: No.7788 del 30/04/1998). The CONAGEBIO is responsible for formulating national policy for biodiversity conservation, advising other government organisations, institutions, and private entities on sustainable use of biodiversity resources, and ensuring that public and private activities are in compliance with policy on biodiversity conservation. (Article 13, Law on Biodiversity) The CONAGEBIO is headed by the Minister of the MINAET, and its members include Ministers of Agriculture, health, the executive director of the representatives from the Costa Rican Institute of Fishing and Aquaculture (*Instituto Costarricense de Pesca y Acuacultura*), Ministry of Foreign Trade (*Ministerio de Comercio Exterior*), the National Peasant Association (*Asociación Mesa Nacional*), the National Indigenous Association (*Asociación Mesa Nacional Indígena*), the National Council of University Presidents (*Consejo Nacional de Rectores*), the Costa Rican Federation for Environmental Conservation (*Federación Costarricense para la Conservación del Ambiente*), and the Costa Rican Union of Chambers of Private Enterprise (*Unión Costarricense de Cámaras de la Empresa Privada*). (Art. 15: Law on Biodiveristy). The Commission implements its decision through its executive director and the technical office (Art. 16: Law on Biodiversity).

The National System of Conservation Areas of Costa Rica
Sistema Nacional de Áreas de Conservación de Costa Rica (SINAC)

The National System of Conservation Areas of Costa Rica (SINAC) was created through the law on Biodiversity . The SINAC is a system of management and institutional coordination which aims to develop an integrated policy and plan for conservation of nature, through coordinating existing skills in the area of forestry, wildlife, protected areas and in the MINAET. (Art. 22: law on Biodiversity) The SINAC divides Costa Rica into 11 Conservation Areas (*Areas de Conservación*) where decentralised management exists for each Conservation

Area . The SINAC is composed of the Executive Secretariat, the National Council of Conservation Areas (*Consejo Nacional de Áreas de Conservación*), the Regional council of Conservation Areas (*Consejo Regional de Areas de Conservacion*), and local councils (Art.23: law on Biodiversity).

National Council for Conservatio Areas
Consejo Nacional de Áreas de Conservación (CONAC)

The National Council for Conservation Areas (CONAC) is the executive body of the SINAC . The CONAC is composed of the Minister of the MINAET, the executive director of the SINAC, the executive director of the technical comision of the CONAGEIBIO, the directors of the each Conservation Area, representative from Regional Council of each Conservation area. The CONAC defines implementation strategy and policies for development of national protected areas and the SINAC, approves strategies and structure of administrative bodies of protected areas and their annual plans and budgets, administers technical auditors of the Management of protected areas. The CONAC also supervises and monitors Management of the Conservation Areas, and recommends creation of new protected areas. The CONAC also coordinates the preparation and update of national strategy for conservation and sustainable use of biodiversity, along with the CONAGEBIO. (Art. 25, law on Biodiversity)

Regional Council for Conservation Areas
Consejo Regional del Área de Conservación

The administration of each conservation area is executed through the Regional Council for Conservation Areas, which consists of minimum of five members elected from various sectors which exists within the respective Conservation Area, including public sector institutions, municipalities, NGOs, and community organisations. A representative from municipality must always be included as a member, and it is elected through an Assembly of all interested sectors. (Art. 29)

Each Conservation area has a commissioner appointed by the CONAC.

The Regional Council for Conservation Areas has responsibility to approve strategies, policies, guidelines plans and budget of respective conservation area that is proposed by the Area Director and the scientific technical committee, and ensures their implementation. The Council is also responsible for ensuring integration of community needs into plans and activities of respective conservation area, and involvement of various sectors for solving any problems related to natural resources and environment in the region. The Council also recommends creation of new protected areas, and modification of category of protected areas. (Art. 30: law on Biodiversity). Each Conservation Area is also responsible for the implemention of relevant environmental laws governing the area including the Law on Conservation of Wildlife (No. 7317, dated 30 October 1992) and the Forestry Law (No. 7575, dated 13 February 1996), and the Law on Service the National Park Service) No. 6084 dated 24 August 1977) (Art. 28)

Each Conservation Area has the director who is responsible for the implementation of the policies decided by the Council, along with his staff and the scientific technical committee who advise the director on technical matters (Art. 31 & 32: law on Biodiversity). The Council also approves concessions and contractors for operating non-core activities within conservation areas, including parking, sanitation, management of physical facilities, food services, shops, construction and management of trails, tour management etc. (Art. 39: law on Biodiversity)

Regional Council for the Conservation Area Osa
Consejo Regional del Área de Conservación Osa (CORACA OSA)

The LiveDiverse case study area falls within the Conservation Area Osa (ACOSA), which includes the Marino Ballena National Park, and the Terraba-Sierpe National Wetland. The Regional Council for the Conservation Area Osa (CORACA OSA) is the body which makes the decision for the management of the ACOSA (Article 1, ACOSA Regalmento).

National Parks Service
Servicio de Parques Nacionales

The National Parks Service were established through the law on National Parks Services (*Ley del Servicio de Parques Nacionales* (No. 6084 of 24/08/1977)). It was originally attached to the Ministry of Agriculture and Livestock, but later was moved to the MINAET (Art. 1: Law on National Parks Services). The National Parks Service is responsible for advising the Minister on policies related to National Parks, executes the Ministry's plan and programmes related to National Park (Art. 3: law on National Parks Services). It operates with some national budgets as well as entrance fee collected from National Parks. (Art. 6: law on National Parks Services).

Pacific Marine Park
Parque Marino del Pacifico

The Pacific Marine Park was established in 2003. It is a national organisation attached to the MINAET, which aims to promote research and education of marine biodiversity. The Park also participates in the development of policy related to conservation of marine resources, and promotes projects which improve the livelihoods of the coastal communities. The Pacific Marine Park is located in the city of Puerntarenas, which is in the province of Puentarenas where the LiveDiverse case study area is located.

Environmental Tribunal
Tribunal Ambiental Administrativo

The Environmental Tribunal was established through the Organic Environmental Law (Ley Orgánica del Ambiente (No. 7554 of 04/10/1995)). The Tribunal is a deconcentration body attached to the MINAET, and has an independent jurisdiction and function. It function as a mechanism to resolve and act on

violations of environmental law and natural resources. (Chapter 21: Organic Environmental Law) (Ministerio de planifición y politica económia, Universidad de Costa Rica et al. ; 13 November 1995; Ministerio de planifición y politica económia, Universidad de Costa Rica et al. 2007)

National Environmental Council
Consejo Nacional Ambiental

The National Environmental Council is an advisory body to the president on environmental matters (Art. 1, Organic Environmental Law). It is created through the Organic Environmental Law. The Committee analyzes and recommends policies related to conservation and sustainable development, and ensures national plan and environmental issues are integrated (Art. 78, Organic Environmental Law). The National Environmental Council consists of the President, and Ministers from Ministry of National Planning and Economic Policy, Ministry of Environment, Energy and Telecommunications, Ministry of Health, Ministry of Agriculture and livestock, Ministry of Education, and Ministry of Science and Technology (Art. 79, Organic Environmental Law).

The National Council on the Committees for the Guards of Natural Resources
Consejo Nacional de los Comités Vigilantes de Recursos Naturales (COVIRENAS)

The Committee for the Guards of Natural Resources (*los Comités Vigilantes de Recursos Natural*: COVIRENAS) is a voluntary group of citizens, registered with the MINAET, which is regulated through the decree 26923 Regulation on Committees for the Guards of Natural Resources (*reglamento de Comités de Vigilancia de los Recursos Naturales COVIRENA*). Two types of volunteers; Natural Resource Inspector (senior people) and Natural Resources Guards (younger people) work together in collaboration with government staff, and monitors compliance to environmental law in their respective locality. The members also engage in taking care of protected area, and promote environmental education and awareness within their communities.(Chapter 2: Regulation on Committees for the Guards of Natural Resources: Decree No 26923. 1 April 1998) The National Council on the Committees for the Guards of Natural Resources (*Consejo Nacional de los Comités Vigilantes de Recursos Naturales* :CONACOVIRENAS) is a national committee which oversees the COVIRENAS programme, chaired by the First Lady of Costa Rica. (Chapter 3: Regulation on Committees for the Guards of Natural Resources: Decree No 26923. 1 April 1998)

Regional Environmental Council
Consejo Regional Ambiental

The Regional Environmental Council was created through the Organic Environmental Law. It is attached to the MINAET, and is a mechanism to enable participation of the civil society for the analysis, discussion, reporting and controlling activities and programmes related to environment. (Art. 7: Organic Environmental Law). Its members are appointed by the MINAET (Art. 11: Organic Environmental Law), amongst the representatives of various sectors

including the League of Municipalities, environmental organisations, Regional Councils students from the secondary school within the region, and the business chambers which are operating in the region. It is chaired by one of the provincial governors in the respective region (Art. 9: Organic Environmental Law) The Council normally meets every month and will have extra sessions when necessary (Article 10: Organic Environmental Law).

Municipalities

Municipalities have the responsibility over administration of natural monuments. They are required to assist the MINAET in preservation of other protected areas which fall under their area. (Art 32: Organic Environmental Law (Ley :7554 del 04/10/1995).)

4.4.1.4 Organisations and Actors in River basin and water resources management

While the MINAET is the main national government agency responsible for water resources, the responsibilities over various aspects of water resources is currently spread over more than 20 organisations. In comparison to the management of biodiversity, the management responsibility over water resources is concentrated at central level, with limited opportunity for stakeholder participation over decision-making. However, the recent Water Resource Strategy which was completed by the MINAET in 2009, recognizes the problem with current institutional fragmentation within water sector, and aims to strengthen the institutions. The strategy also recognizes importance of public participation over water resources management, and it is placed as one of the key principle. Currently, the draft new water law is being proposed, and the 7th version of the draft law proposes to create the new 'water sector' which will be housed within the MINAET, lead by the vice-Minister of the MINAET (Art. 5 and 10, version 7 of draft new Water Law) . The overview of the organisations related to water sector is illustrated in the figure 12.

Ministry of Environment, Energy and Telecommunications

Ministerio de Ambiente, Energía y Telecomunicaciones (MINAET)

The Ministry of Environment, Energy and Telecommunications (MINAET) is the national ministry which is responsible for the management of water resources in Costa Rica. Its Department of Water Resources (*Departamento de Aguas*) which has the responsibility over management of the water resources, is currently integrated as part of the National Meteorological Institute *(Instituto Meteorológico Nacional: IMN)*. (p9).

The main responsibility of the Department of Water Resources include defining policies and strategies over management of water resources, granting water concession permits for surface water and permits for drilling of wells, authorising Rural Water Supply Associations of AyA (see below) and Water Users Societies and grant permission for irrigation districts.

The Department also has the responsibility to manage water resources in coordination with other relevant institutions, which includes the followings;

Costa Rican Institute of Electricity (*Instituto Costarricense de Electricidad*: ICE) National Meteorological Institute (*Instituto Meteorológico Nacional*), the Regulatory Authority for Public Services (ARESEP), the National Service for Subterranean Aquifers Irrigation and Drainage (*Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento or SENARA*), Costa Rican Water and Sanitation Institute (*Instituto Costarricense de Acueductos y Alcantarillados* :AyA), National Power and Light Company (*Compañía Nacional de Fuerza y Luz, S.A*:CNFL S.A.), Heredia Public Services Company (*Empresa de Servicios Públicos de Heredia, S.A* :ESPH), Cartago Board of Administration for Power Services (*Junta Administradora de Servicios Públicos de Cartago, S.A* :JASEC), Costa Rican Institute of Fisheries (*Instituto Costarricense de Pesca* :INCOPESCA), and Administrative Association of Rural Water and Sanitation System (*Asociaciones Administradoras de Acueductos y Alcantarillados Comunales* :ASADAs)

Costa Rican Water and Sanitation Institute
Instituto Costarricense de Acueductos y Alcantarillados (AyA)

The Costa Rican Water and Sanitation Institute (AyA) is an autonomous body created in 1961, through the Law on establishment of the Costa Rican Water and Sanitation Institute (No 2726: Ley Constitutiva Instituto Costarricense Acueductos y Alcatarillados) . It is in charge of regulating potable water services, collection and disposal of sewage, and wastewater, as well as drainage in urban areas.

Administrative Associations of Rural Water and Sanitation Systems
Asociaciones Administradoras de Acueductos Comunitarios (ASADAS)

The Administrative Associations of Rural Water and Sanitation Systems (ASADAS) is a state institution, which is supervised by the AyA. The ASADAS provides potable water access to areas where coverage by the AyA is marginal and resources are limited, including rural areas and indigenous territories. Within the Térraba River Basin, the ASADAS have organised as regional committees which facilitates communication between government agencies, creating inter-institutional initiatives.

Public Service Regulatory Aurthority

Autoridad Reguladora de los Servicios Públicos (ARESEP)

The Public Service Regulatory Authority (ARESEP) is an autonomous institution established in 1928 through Ley 7593 . The ARESEP fixes rates for drinking water, sewage services, and ensures quality of public services. It also provides public service concession to private entities. It also develops rules and conducts inspections in order to ensure quality of the public service.

National Ground Water, Irrigation and Drainage Service

Servicio Nacional de Aguas Subterráneas, Rigo y Avenamiento (SENARA)

The National Ground Water, Irrigation and Drainage Service (SENARA) is autonomous institution which was established in 1983 through the Law No 6877 (*Ley 6877*) . The SENARA is responsible for water issues (i.e. irrigation and drainage) related to agricultural development . The SENARA formulates plans, policies and programmes related to water use for irrigation and drainage, designs irrigation districts, and handles irrigation concessions for the Department of Water, MINAET.

Ministry of Health

Ministerio de Salud

The Ministry of Health is a national ministry, which is responsible for health related matters. In relation to water resources management, the Ministry provides technical standards for drinking water quality and discharge of pollutant. It approves waste water treatment plants, and issues water quality certificates. The Ministry has also has power to close down any production activities which contaminates surrounding environment . The Ministry is an active member of the PROTERRABA.

Ministry of Agriculture and Livestock

Ministerio de Agricultura y Ganadería

The Ministry of Agriculture and Livestock is a national ministry, which is responsible for developing land management for watersheds. It ensures recovery, protection and conservation of land and soil. The Ministry also regulates use of pesticides . The Ministry is an active member of the PROTERRABA.

Costa Rican Institute of Fisheries

(*Instituto Costarricense de Pesca* (INCOPESCA)

The Costa Rican Institute of Fisheries (INCOPESCA) is an autonomous institution established in 1994, through the Law No. 7384 (*Ley 7384*) . The INCOPESCA is responsible for promoting and developing fisheries and aquaculture, and conducts relevant research. It regulates the rational use of fishery resources, and develops, monitors and follows up the implementation of regulation over the pollution of marine resources and aquaculture.

The National System of Conservation Areas of Costa Rica

Sistema Nacional del Áreas de Conservación de Costa Rica (SINAC)

As described in the section on biodiversity, the SINAC is responsible for management of protected area, which is often an important watershed area for water supply.

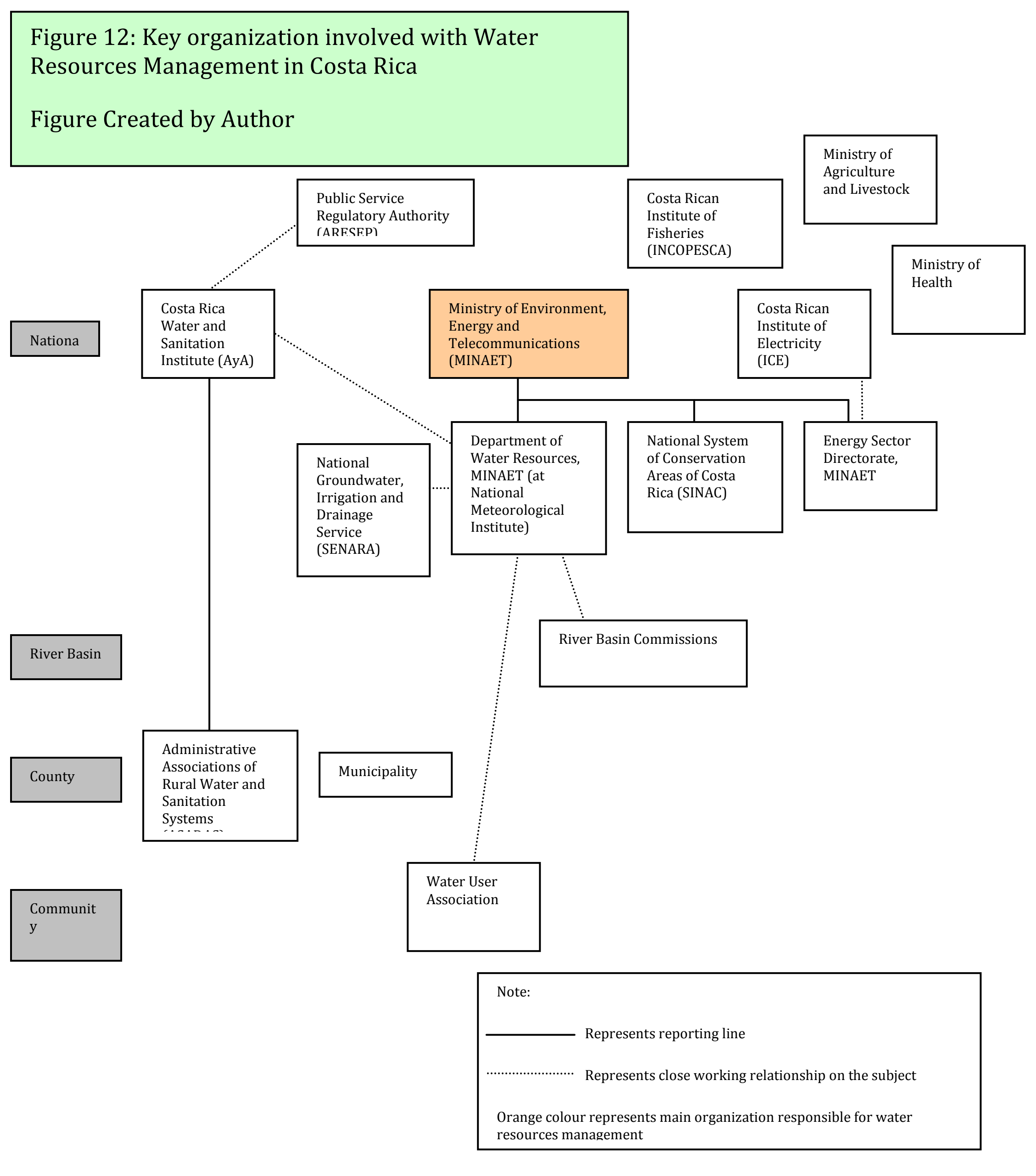

Figure 12: Key organization involved with Water Resources Management in Costa Rica

Figure Created by Author

The Energy Sector Directorate, MINAET

Dirección de Sectorial de Energia

The Energy Sector Directorate at MINAET is responsible for developing a comprehensive energy plan for Costa Rica. The Directorate grants concessions of hydroelectric generation. The Directorate also coordinates with the Costa Rican Institute of Electricity (ICE) over power generation.

Costa Rican Institute of Electricity (ICE)
Instituto Costarricense de Electricida (ICE)

The Costa Rican Institute of Electricity (ICE) is an autonomous institution established in 1949 through the Law No. 449 (*Ley 449*) . The ICE is engaged in the area of electricity and telecommunication . Within the LiveDiverse case study area, the ICE is engaged in planning, construction and operation of the El Diquís hydroelectric plant.

Technical Commission for Integral Development in the Grande de Térraba River Basin
Comisión Técnica para el Manejo y Desarrollo Integral de la Cuenca del Río Grande de Grande de Térraba (PROTERRABA)

In Costa Rica, stakeholders in some of the river basins have voluntarily established river basin commissions. The Grande de Térraba River Basin, which is the LiveDiverse case study area, is one of such basins. The Technical Commission for Integral Development in the Grande de Térraba River Basin (PROTERRABA) was officially established through the Decree No. 34945 of the 1st of October 2008. It originally started as a voluntary collaboration among the concerned officials and individuals from various organisations and institutions working on issues related to the water resources related to the Térraba River Basin. The collaboration started about 10 years ago, and as part of the initiative, the group played a catalytic role in creation of the decree No. 34945 of the 1st of October, which enable for the group to have a legal status. The Commission is in charge of the coordination of the planning of the Terraba River Basin, with an aim to promote the sustainable development of the basin and its surrounding communities. The Commission is attached to the MINAET, and members include representative from the MINAET, SINAC in Brunca region, department of water at the MINAET, municipal councils of Pérez Zeledón, Buenos Aires, Coto Brus, Osa, National University Brunca Region, and Brunca regional representatives from the Ministry of Agriculture and Livestock, Ministry of Health, AyA, and ICE representatives. (Article 2, Decree on creation of the Technical Commission on Management and Integrated Development of the Río Grande de Térraba River Basin. Decree No 34945 del 01/10/2008) The Commission intends to expand its membership to include other stakeholders such as local communities, farmers, and private sectors. The members of the Commission are technical level officials and representatives, who report individually to their own institutions (

Municipality

Municipalidad
The Municipality is responsible for administration of basic services such as potable water, waste water and drainage, road maintenance and urban planning. The Municipality of Osa county, which is one of the counties within the Terraba River Basin, is responsible for the administration of regulating real estate development along the Costeña Ridge, which impacts water quality of the Terraba River basin.

Water User Association

Sociedades de Usuario de Aguas

The Water User Association is one of the few modalities that currently exist to allow citizen's participation in the management of water resources, which is regulated by the Art. 131 of the Water Law (No. 276 of 27 August 1942). Water User Associations can be created with minimum of five collective user of public water. Once the Water User Association is registered, it can obtain concession for water use, construct irrigation and drinking water supply and any other types of water usage. The Water User Association can obtain funds necessary for construction, and is able to acquire real estate for the purpose of the association.

4.4.1.5 Organisations and Actors in Livelihoods, Development, and Indigenous People

Agriculture

The agriculture sector in the basin is dominated by the large scale agricultural plantations. This section describes the government organizations, private sector actors and civil society organization, engaged in agriculture sector within Grande de Térraba River Basin.

<u>Ministry of Agriculture and Livestock</u>
Ministerio de Agricultura y Ganadería (MAG)

The Ministry of Agriculture and Livestock (MAG) is a national ministry, which is responsible for agriculture. The Ministry develops regulations and policies related to agriculture sector, promotes and advice on rural agricultural activities. Within the Térraba River Basin, the MAG regulates agricultural and livestock activities such as use of agro-chemicals which affects water quality of the river.

<u>Agrarian Development Institute,</u>
Instituto de Desarrollo Agrario (IDA)

The Agrarian Development Institute (IDA) is an independent autonomous institution created by the law No 2825 October 14, 1961. The IDA's main objective is to support rural communities through providing land and agricultural support. The LiveDiverse case study area falls under the IDA's subregions of San Isidro, Río Claro, Coto Brus, Osa and Laurel. Prior to the establishment of the Térraba-Sierpe National Wetland in 1994, the IDA has allocated some of the land within the Wetland for farmers, which still exists within the protected area.

<u>Agro industrial Commodity Chain:Coffee</u>
Cadena Agroindustrial de Café

In the Municipalities of Coto Brus, Perez Zeledon and Buenos Aires, where Terraba River basin is located, coffee production is one of the main economic activities. The recent price drop in the coffee market is creating problems for

producers, who are now looking to add value to their coffee through 'green' production.

Agro industrial Commodity Chain: Palm Oil
Cadena agroindustrial de palma aceitera

In the lower area of Terraba-Sierpe River basin, palm oil is one of the industry which has revitalized its economy, particularly in areas such as Corredores, Golfito, and Osa. The industry is currently suffering from the drop in price of palm oil. The industry is exploring various possibilities for revitalizing its economic situation, for example, through establishing agreement with the producer of final products using palm oil.

Agro industrial Commodity Chain: Livestock
Cadena agroindustrial pecuaria

A variety of livestock production exists within the LiveDiverse case study area, including dairy, poultry, pig and horse farming. 'There have been some efforts to create local commodity and production chains, but these require more support in order to reach their maximum potential.'

Agro industrial Commodity Chain: Sugar Cane
Cadena agroindustrial de caña de azúcar

Within the basin, the production of sugar cane is concentrated in the El General Valley (sub-basin of the Terraba-Sierpe river basin), which includes municipalities of Perez Zeledón and Buenos Aires. The sugarcane production requires a large amount of water use, which impacts the river basin.

Settlements inside the Térraba - Sierpe Wetlands.

(Asentamientos dentro del Humedal Térraba Sierpe

Within the Térraba-Sierpe a National Wetland was established in 1994, the IDA has allocated some land for agricultural purposes, in order to relocate farmers from southern part of the country. However, the IDA did not provide any land title to the settlers to this area. Once the land was within the protected area, it became legally impossible to gain any land or property ownership within the area. The agriculture activity however, continues today, as the area was excluded from the management of the MINAET. This complicated situation creates insecurity for the future of the farmers.

Sierpe Piangüeros Association
Asociación de Piangüeros de Sierpe

The Sierpe Piangüeros Association is a local association of piangua collectors (*piangüeros)*. Piangua is the local mollusk harvested within the Térraba - Sierpe Wetland. The recent increase in number of *piangüeros* is giving pressure to the population of pianguas, which affects the livelihoods of *piangüeros.* Concerned

with this situation, the Association has established a local rule that regulates harvesting of small pianguas, in order to ensure sustainable harvesting of pianguas. As of November 2009, forty-five families have joined the Association as members while there are seventy other families who are not the member. Non-member *piangüeros* do not necessarily follow the regulation, threatening sustainability of piangua harvesting.

The Pineapple Development Corporation
Piña de Costa Rica (PINDECO S.A)

The Pineapple Development Corporation (PINDECO S.A.) is a company which was created as a subsidiary of the Del Monte Corporation in 1979. As of 1995, the PINDECO S.A. was the largest pineapple producer in Costa Rica, controlling 67% of the plantations and producing 50% of the national production. The extensive pineapple plantation requires elimination of other vegetation, which creates high rates of soil erosion and diminishes soil nutrient. Also, its extensive use of agrochemicals and pesticides are polluting surrounding water, and negatively impacting local population. With the dominance of the PINDECO S.A. in the area, small and medium sized pineapple farmers became unable to compete in the market, resulting in selling their land to larger companies. The PINDECO S.A. and other large pineapple plantation companies also tend to have contract workers who are willing to work in low working conditions, which is also negatively affecting livelihoods of the local workers.

Front for the Fight Against Contamination Caused by PINDECO

(Frente de lucha en contra de la contaminación de PINDECO

The Front for the Fight Against Contamination Caused by PINDECO is a local civil society organisation, which is dealing with the social and environmental problems created by the pineapple plantations. Specifically, it is working towards issues on the un-regulated expansion of PINDECO plantations, worker's health problem created through inadequate use of agrochemicals, and contamination of surrounding environment through the operations of pineapple plantations.

Real estate development

Municipality of Osa

The municipal government is responsible for potable water, waste water, drainage and road maintenance, which are all critical components of real estate development. In addition, the municipal government of Osa has administrative control over the regulation of real estate development along the Costeña Ridge.

National Environmental Technical Secretariat
Secretaría Técnica Nacional Ambiental (SETENA)

The National Environmental Technical Secretariat (SETENA) was created through the Organic Environmental Law (Art.17, Organic Environmental Law :Ley 7554 del 04/10/1995). It is attached to the MINAET, and is a body which reviews and approves environmental impact assessment for projects or activities with negative environmental impact (Art. 18, Organic Environmental law). The SETENA also listens to any opinions from affected party, on concern related to the project, which will be included in the final assessment report. Once evaluation is completed, the SETENA sends the assessment report to the municipality where the proposed project is located, and also publicises the information through mass media. (Article 22)

Real Estate Development Companies

Real estate development within the basin is increasing, and as foreigners are able to own land in Costa Rica, there are many real estate developers which target foreign customers, in particular from North America and Europe. The recent global financial crisis accelerated the real estate business in Costa Rica, as people in developing countries are now looking into investment that will bring more 'value' for money. The real estate developers have to conduct environmental impact assessment, in order to receive permission for construction.

Planning

Ministry of National Planning and Economic Policy

Ministerio de Planificación Nacional y Politica Económica (MIDEPLAN)

The Ministry of National Planning and Economic Policy (MIDEPLAN) is the national ministry which coordinates the planning process in the Costa Rican government. Its main area of work is to develop the National Development Plan.

National Planning System

Sistema Nacional de Planificacion

The National Planning System was created in 1974 through the National Planning Law (No 5525 of 02/05/1974). It is composed of the Ministry of Planning, other ministries, and public institutions. The National Planning System develops policy proposals for economic and social development, conducts socio-economic outlook study, and coordinates various relevant committees and councils as necessary. It works along the lines set by the MIDEPLAN. (Chapter 1: National Planning Law)

Ministry of Interior and Police

Ministerio de Gobernación y Policia

The Ministry of Interior, Police and Public Safety is a national ministry which develops strategy, policy, guideline and programme related to migration and immigration law, promotes community development, controls propaganda in the media and publication of official and educational documents. The Ministry has

the Directorate of National Community Development (*Dirección Nacional de Desarrollo de la Comunidad*) which is responsible for supporting and evaluating both national and international organizations supporting community development in Costa Rica. (Article 1: Law on Community Development) The Directorate establishes methodology for planning, implementation, monitoring and evaluation of community development programmes. (Article 7: Law on Community Development)

The National Council for Community Development

Consejo Nacional del Descarrollo de la Comunidad

The National Council for Community Development was established through the Law on Community Development. It is headed by the Minister of Interior and Police, with members from other relevant ministries, representatives from development organizations and unions of local government (Art. 8: Law on Community Development) The Council determines which programs and services of public institution should be understood as a specific part of the national development plan for the community (Art. 10: Law on Community Development).

National Institute of Housing and Urbanization

Instituto Nacional de Vivienda y Urbanismo

The National Institute of Housing and Urbanization is an autonomous body, which was created in 1954. The Institutes supports in providing better housing and living conditions to Costa Ricans, in particular to the marginalized people. The institute is also in charge of planning of the town development.

Tourism

Costa Rica Tourism Board

Instituto Costarricense de Turismo (ICT)

The Costa Rica Tourism Board (ICT) was established in 1955 as an autonomous institution through the Law No 7384 (*Ley 7384*). The ICT is responsible for promoting and strengthening Costa Rica's tourism development, attracting and assessing investors, ensuring the quality of tourism, and marketing of Costa Rica's tourism. The Tourism Regulatory Commission (*Comisión Reguladora de Turismo*) is an organization which is attached to the ICT.

Indigenous People

National Commission on Indigenous Affairs
Comisión Nacional de Asuntos Indígenas (CONAI)

The National Commission on Indigenous Affairs (CONAI) is a semi-autonomous institution established in 1973, through the Law No. 5251 (*Ley 5251*). The CONAI is responsible for ensuring enhancement of economic, social life of

indigenous communities, and their integration in the development process. It also has responsibility to assure law and legislation related to indigenous communities, such as the Indigenous Law (Ley Indigena No 6272).

Indigenous Development Association

Asociación de desarrollo integral del territorio indígena (ADI)

The Indigenous Development Association (ADI) is the local government within indigenous territory, which manages their respective territories. Its members are elected by local people, and carries out community's development work. One of the important roles of the ADI is to approve the land-use within the territory. As there is no individual land-title within the territory, the decision on how to use its land becomes critical for the community and livelihoods of its members.

In the area of Diquis hydroelectric power project, the ADI has been negotiating the location, construction and compensation to the community with the ICE. Within the Térraba -Sierpe wetland area, the Boruca Indigenous Development Association (*Asociación de Desarrollo Indígena Boruca*) has obtained the right to use natural resources in the Térraba -Sierpe wetlands in traditional way.

Non-indigenous land owners in the Territory of China Kicha

(Propietario no indígena en el Territorio de China Kichá)

Within the Indigenous territory of China Kicha, there are non-indigenous property owners, who have legal problems due to uncertainty in their property rights. While the area will be affected by the El Diquis hydroelectric Project, as it is within the indigenous territory, these non-indigenous land owners have been excluded from any negotiation with the ICE.

Aradikes

The Aradikes is a local civil society organization, which brings together indigenous associations and advise on cultural issues and land-use/ rights.

Indigenous Ethnic Council

Consejos étnicos Indígenas

There are 8 ethnic groups and 22 recognized indigenous territories within Costa Rica. The Indigenous Ethnic Council was created by the decree 21475 (12 October 1992), in order to coordinate socio-cultural issues and maintain cohesion and identity of each ethnic groups, which are located within different indigenous territories.

Boruca Artisans Committee

(*Comité de Artesanías Boruca*)

It is a local organization of Boruca entrepreneurs who make a living from the traditional use of natural resources in the Térraba -Sierpe wetlands. While the use has been traditional, there is a potential conflict with the MINAET and local people living near the coastal area.

Other Organisations and actors

National University – Brunca Region campus

(Universidad Nacional – Sede Regional Brunca)

The National University's Brunca region campus is an educational and research institution in the Brunca region. The university is conducting projects within the LiveDiverse area, and the result of research is contributing to the development in the region.

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4.4.2 The Legal Framework

4.4.2.1 Procedural Rights: Access to Information, Participation in Decision-Making and Access to Justice

Costa Rica has ratified all international and regional agreements pertaining to human rights. Thus, it is a party to the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights and its Optional Protocol, the International Convention on the Elimination of All Forms of Racial Discrimination, the Convention concerning Indigenous and Tribal Peoples in Independent Countries. It is also a party to American Convention on Human Rights (1948) and its additional Protocol on Human Rights in the Area of Economic Social and Cultural Rights, the so-called "Protocol of San Salvador". According to Art. 7 of the Constitution, international

agreements signed by the National Assembly have a higher authority than law. Therefore, they apply directly.

Access to information

Costa Rica does not have any specific law on access to information. According to Art. 30 of its Constitution, the free access to administrative departments is guaranteed so as to have information on public matters (which is slightly different from a guarantee of access to information) except State secrets.

Art. 27 of the Constitution sets up the freedom of petition that can be exercised either individually or collectively.

Participation in decision-making

Participation in the decision-making process has been improved since 2002-2003.

Costa Rica is a representative democracy, where the legislative power lies with the people through their representatives (Assembly elected by the people) but in 2002 a major process of direct democracy was introduced in the Constitution: the referendum, through which the citizens of a country has a direct say in the legislative process.

Pursuant to Art. 105 of the Constitution, " El pueblo también podrá ejercer esta potestad [de legislar] mediante el referéndum, para aprobar o derogar leyes y reformas parciales de la Constitución". This new provision provides for three ways of initiating a referendum. The initiative can stem from the Legislative assembly, if approved by the two third of its members; it can also come from the executive power with the approval of the absolute majority of the legislative assembly. The last way of initiating a referendum is the most successful mean of direct democracy, as 5% of the citizens entitled to vote can require a referendum. This right of people's initiative has been recently exercised with respect to a draft law on integrated management of water resources. Facing a major political stalemate, the civil society decided to put forward this project to the National Assembly[86]. Referendums can be carried out in order to approve or modify laws or partially amend the Constitution, except in the fields of tax, budgetary, financial matters or administrative matters. The referendum process and the specific people's initiative have been both specified in subsequent laws[87].

To acknowledge this new trend toward more participation of the People, Art. 9 of the Constitution was modified in 2003 so as to insert the adjective "participative" along with the other characteristics of the Republic of Costa Rica: "El Gobierno de la República es popular, representativo, participativo, alternativo y responsible".

In the specific field of the environment, the active and organised public participation in decision-making and actions is required by the law on the

[86] see www. http://hidrico.sociedadhumana.com , CEDARANA

[87] Respectively: Ley 8492 sobre Regulación del Referéndum **(09/03/06)** and Ley 8491 de iniciativa popular (09/03/06)

environment and its implementation is incumbent upon the State and the municipalities. This participation aims at protecting and improving the environment.

The law on the environment also creates the "Consejo regional ambientales", which are decontrated bodies and involves the participation of the civil society.

A draft law to strengthen participation processes in the field on the environment has been put forward in 2006[88].

The environmental impact assessment process provides for a right of everyone to be listened to by the Secretaria Tecnica Nacional Ambiental (STNA)[89], in charge of supervising the EIA. This right can be exercised throughout the process of assessment and even during the operational phase of the project. Several ways of "being listened to" are specified by the decree implementing the provisions on EIA. The public can give its comments by written directly to the STNA. It can also require a private hearing or a public hearing to STNA[90].

Public hearings in the environmental impact assessment process are not mandatory. It is not required by the general law on the environment, and can be carried out either on the request from the public or if STNA find it necessary as in the case of EIA of projects affecting biodiversity[91]. In case it finds it unnecessary, it will have to provide other ways to gather public comments[92].

Public hearings will involve the municipalities, Asociacion de Dessarollo, and any interested person of the civil society, including the representatives of economic activities in the area. The holding of a public hearing should be published in a national newspaper 10 working days before.

No specific provisions relate to public participation during the establishment of protected areas[93].

Participation is also required in the drafting and implementation of territorial and urban planning[94].

Access to justice

Regarding access to justice, the Constitution guarantees and protects two major rights. Article 48 of the Constitution states that "Toda persona tiene derecho al recurso de hábeas corpus para garantizar su libertad e integridad personales, y al recurso de amparo para mantener o restablecer el goce de los otros derechos

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[88] Proyecto de Ley para fortalecer los mecanismos de participación ciudadana en materia ambiental (No 16322, 16/08/06)

[89] Article 22, Ley Orgánica del Ambiente No. 7554 (04/10/1995

[90] Article 55, Ejecutivo Número 31849-MINAE-SALUD-MOPT-MAG-MEIC, Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA), del 28 de junio del 2004

[91] Article 95, Ley de Biodiversidad No. 7788, (23/04/98).

[92] Article 56, Decreto Ejecutivo Número 31849-MINAE-SALUD-MOPT-MAG-MEIC, Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA), del 28 de junio del 2004

[93] Ministerio del ambiente y Energia, Costa Rica, Informe Tematica Areas Silvestres Protegidas ante el Convenio de Diversidad Biologica, 2003, p.12 (report to the CBD)

[94] Article 29.d, Ley Orgánica del Ambiente No. 7554 (04/10/1995)

consagrados en esta Constitución, así como de los de carácter fundamental establecidos en los instrumentos internacionales sobre derechos humanos, aplicables a la República." The first right is the right of Habeas Corpus recourse to guarantee freedom and personal integrity. The second right is the recourse called "amparo" to maintain or recover the enjoyment of others rights enshrined into the Constitution or in international human rights agreements[95]. The Constitutional Chamber plays a far-reaching role in protecting human rights.

Regarding access to justice in the field of the environment, the Constitution acknowledges the right to the environment and thus the right to denounce any acts infringing this right. (Art. 50). The right of access to justice is one of the procedural rights to implement the right to the environment.

4.4.2.2 Resource Tenure and Property Rights

With respect to land, the" Ley de Tierras y Colonizacion"[96] identifies the lands belonging to the State, which are inalienable and which cannot be acquired even by possession (land under imprescriptibly). These lands encompass, inter alia:

- areas of 200m along rivers, springs, and of 300m around catchments
- areas around volcanoes,
- the coastal zone called "zona marítimo terrestre " is public and belongs to the national heritage [97]. This zone covers a 200m area from the (article 1). this area is divided into two zones: a public area of 50m from the limit of the high tide, where public access is guaranteed, and the creation of construction or infrastructures is forbidden except few exceptions; another area of 150m called restrictive zone, where prohibitions applied but the delivery of concession (for 5 to 20 years) by municipalities is possible. But municipalities are deprived of their right to grant concessions if the area is made of forests and forestry lands, as these forests belong automatically to the State natural heritage[98].

  Moreover, mangroves bordering the continental coastal zone and estuaries are regarded as public zones, part of the national heritage[99]. Therefore, mangroves are inalienable and imprescriptible. They are automatically protected under the category "wetlands" (humedales). Any form of occupation is forbidden.

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[95] See points 36-93, Human Rights Committee, Fifth Periodic Report, Costa Rica, CCPR/C/CRI/5, 6 November 2006

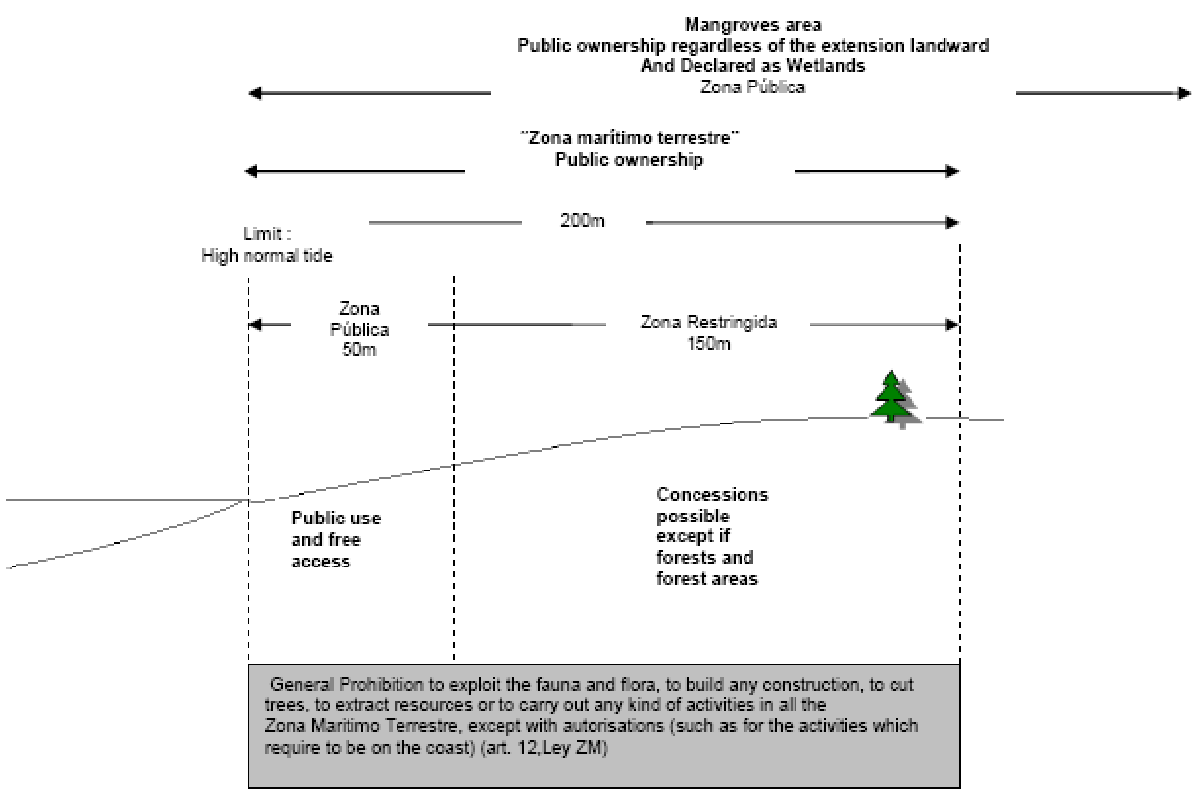
[96] Ley de Tierras y Colonizacion (2825)(1962) (and subsequent amendments)

[97] Article 1, Ley sobre la zona maritime terrestre, ley 6043, (02/03/77): "La zona marítimo terrestre constituye parte del patrimonio nacional, pertenece al Estado y es inalienable e imprescriptible"

[98] Dictamen de la Procuraduría General de la República, C-297-2004 19 de octubre del 2004

[99] Decreto Ejecutivo No. 22550-MIRENEM Declarada de área de manglares adyacentes a los litorales continentales e insulares del país (1993), modified by decreto No 23247 (18/05/94)

Forests and forests land located in State reserves, areas inalienable, are part of the State Natural heritage, and thus are inalienable and imprescriptible[100].



Most of natural resources in Costa Rica belong to public ownership. According to the law on biodiversity, the chemical and biogenetic properties of the elements of wild and domesticated biodiversity, is public ownership ("dominio público")[101]. The wild fauna and flora are goods of public ownership ("bienes de dominio public")[102]. Water is of public ownership ("dominio public del agua")[103]. But the water law specifies the statute (either public or private) of water resources[104].

According to the indigenous law, indigenous people own the land of indigenous reserves[105]. Indigenous reserves are inalienable, imprescriptible, and exclusive to the indigenous communities living inside. Non indigenous people cannot buy, rent or acquire lands or properties in these reserves. In case a non indigenous

[100] Article 13 to 15, Ley Forestal No. 7575 (05/02/96) (and Ley No. 7761 "Modificación de la Ley Forestal No.7575", de 19/05/98)
[101] Article 6, Ley de Biodiversidad No. 7788, (23/04/98)
[102] Article 47, Ley Orgánica del Ambiente No. 7554 (04/10/1995)
[103] Article 50, Ley Orgánica del Ambiente No. 7554 (04/10/1995)
[104] Article 4, Ley de Aguas, No. 276 (25/08/1942)
[105] Article 2 Ley indígena No 6172, (16/11/77)

person owns a land within an indigenous reserve, this person should benefit from another land. In case the owner does not agree, he will be expropriated.

Indigenous people don't own the subsoil resources. The mineral code asserts the only State ownership over them[106]. Until 2006[107], Art. 8 of the Indigenous law was indeed in contradiction with this statement as it stated that the subsoil resources present in indigenous reserves were both under the ownership of the State and of indigenous people and their exploitation required the only authorisation of CONAI (National Commission on Indigenous Affairs). According to the mining code, exploitation within indigenous reserve is possible but the decision of authorisation/ concession requires a law except if the exploitation is carried out by the State. This law has to ensure the protection of indigenous rights[108].

4.4.2.3 Legal Framework for Natural Resource Management and conservation

Costa Rica has ratified a wide range of international environmental agreements[109] (except the Convention on the Law of the Non-navigational Uses of International Watercourses) along with regional ones. Committed by these agreements, Costa Rica has to implement their provisions.

Principles of the environmental policies are laid down by Art. 2 of the law on the environment: the environment is the common heritage of all the people of Costa Rica, the right to the environment pursuant to the constitution, the rational use of the environment, sustainable development

The law on biodiversity puts forward general principles in the field of biodiversity, such as the respect of any form of life regardless of their value, respect of cultural diversity, equity inter and intra generations (Art. 9). Art. 11 provides for criteria to implement the law, but these criteria are more related to environmental principles as we know them such as precaution, integration, prevention. The use of genetic resources should also guarantee choices of development for future generation, food security, and protection of health.

With respect to water resources management, the National policy is based on the right to water as a human right, on the principles of equity and solidarity for the management of water, on the recognition of water as a public good. The

[106] Article 1 states "El Estado tiene el dominio absoluto, inalienable e imprescriptible de todos los recursos minerals", Código de Minería, Ley Nº 6797,

[107] Dictamen *de la Procuraduría General de la República, C-* 171-2006, 02/05/2006

[108] Article 8, Código de Minería, Ley Nº 6797,

[109] Convention on Biological Diversity (28/08/94 party), Cartagena Protocol on biosafety (02/06/06 rat., 05/07/07 party), CITES (28/11/75 entry force), Convention concerning the Protection of the World Cultural and Natural Heritage (23/08/77), International Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (08/01/98 rat., 08/04/08 entry), Convention on the Conservation of Migratory Species of Wild Animals (1/8/2007), International Treaty on Plant Genetic Resources for Food and Agriculture (rat. 14/11/2006), Convention for the Safeguarding of the Intangible Cultural Heritage (23/02/2007, ratification), United Nations Framework Convention on Climate Change (entry into force 24/11/94), Kyoto Protocol (entry into force 16/02/05), Convention on Wetlands of International Importance (Ramsar Convention) (27/04/92)

management of water should be integrated, decentralized and ensure public participation[110].

The law on forests aims to protect, conserve and manage natural forests, but also to regulate the production, development and industrial use of forest resources in compliance with the principle of sustainable and adequate use of natural resources[111].

Regarding land resources, the law on lands (soils)[112] aims to protect, conserve and improve the soils by an integrated and sustainable management. It promotes agroecology as a mean to reconcile agriculture and soil conservation.

In indigenous reserves, land covered by forest ecosystems should not be altered so as to keep the ecological balance of watershed and the protection of wildlife. Natural resources should be exploited rationally[113].

The Costa Rican legal framework ensures the conservation and sustainable use of ecosystems and species *in situ* and *ex situ*.

Protected areas in Costa Rica account for 25% of the national territory including its marine area.

Protected areas in Costa Rica are included in a broad protected areas network called "Sistema Nacional de areas de conservacion"

Legal basis for protected areas establishment

Protected areas can be established regardless of the status of the land ownership (either on public or private land.). But we need to keep in mind the right to property protected by the Constitution and the fact that no one can be deprived of its property except for public reasons and previous financial compensation[114].

In the case of State or public land ownership, the process is rather straightforward. The creation requires preliminary studies, objectives and location of the area, financing, etc[115].

In the case of private property, the establishment of a protected area can be more difficult as it can end in the acquisition of the land by the State. If the protected areas are national parks, biological reserves, national refuges of wildlife, private lands are either bought or expropriated with compensation. In the case of the creation of forest reserves, "protectoras areas", land are either

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[110] Decreto N° 30480-MINAE, Principios que regirán la política nacional en materia de gestión de los recursos hídricos y que deberán ser incorporados, en los planes de trabajo de las instituciones públicas relevantes (12/06/02)
[111] Ley Forestal No. 7575 (05/02/96) (and Ley No. 7761 "Modificación de la Ley Forestal No.7575", de 19/05/98)
[112] Ley No. 7779 "Ley de uso, manejo y conservación de suelos", (21/05/98)
[113] Article 7 Ley indígena No 6172, (16/11/77)
[114] Article 45, Constitution
[115] Article 36, Ley Orgánica del Ambiente No. 7554 (04/10/1995)

bought or expropriated except if the land owner agrees to comply with the forest regime[116].

Article 58 of the law on biodiversity requires that the rights of indigenous people, farmers and other persons, existing previously to the establishment of the protected areas, to be taken into account.

Categories of protected areas and governance types

Protected areas in Costa Rica can be established in the terrestrial area and in the marine area.

Protected areas are defined as "Las áreas silvestres protegidas son zonas geográficas delimitadas, constituidas por terrenos, humedales y porciones de mar. Han sido declaradas como tales por representar significado especial por sus ecosistemas, la existencia de especies amenazadas, la repercusión en la reproducción y otras necesidades y por su significado histórico y cultural. Estas áreas estarán dedicadas a conservación y proteger la biodiversidad, el suelo, el recurso hídrico, los recursos culturales y los servicios de los ecosistemas en general.[117]"

- categories:

The law on environment provides for the creation of 7 categories of protected areas:

- "reservas forestales,
- zonas protectoras,
- parques nacionales,
- reservas biológicas,
- refugios nacionales de vida silvestre,
- humedales,
- monumentos naturales".

The law does not specify particular objectives attached to each category, they can be found in the executive decree of the law[118] which also creates two new protected areas for coastal and marine area: the Management marine areas ("Area marina de manejo")[119] and the Marine Reserves ("Reservas marinas")[120].

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[116] Article 37, Ley Orgánica del Ambiente No. 7554 (04/10/1995), see also article 2, Ley Forestal No. 7575 (05/02/96)
[117] Article 58, Ley de Biodiversidad No. 7788,
[118] Article 70, Decreto Ejecutivo Nº 34433, Reglamento a la Ley de Biodiversidad (11/03/08)
[119] Decreto Nº 35.369/MINAET Regulación de nuevas categorías de manejo para Áreas Marinas Protegidas (18/05/09)

The law on the environment provides for the common objectives of all protected areas. As such, the objectives of protected areas in Costa Rica are to conserve the natural habitat representative of the different ecoregions, to protect genetic diversity, to ensure the sustainable use of ecosystems while fostering the participation of communities, to promote scientific research, to protect water bodies and catchments[121].

Moreover on the marine area, marine protection area of multiple uses[122] ("área marina de uso multiple") can be created to protect the marine area but also to ensure the sustainable use of the resources and habitats which can have an influence on the marine area.

Protected areas are created by laws or decrees.

Protected areas located in the marine-terrestrial zone are regulated by their own legislation and not by the Ley sobre la zona maritime[123].

Protected areas in the case-study area

The case-study area involves several protected areas, among them we find:

- The Tierraba-Sierpe National Wetlands (Humedal Nacional Tierraba-Sierpe) benefits from an overlapping protective regime. It has been recognised as a national wetland by Decreto Ejecutivo No. 22993-MIRENEM, (17/03/1994). The area has been a forest reserve since 1977. The wetlands are also a Ramsar site since 1995. The wetlands are Located within "Area de conservacion de Osa" (ACOSA) and are included in a marine protection area of multiple uses (Área Marina de Uso Múltiple Pacifico Sur)[124].
- The Ballena Marine National Park was created in 1992. Its area, primarily marine was extended to include the terrestrial public zone of 50m in 2002.

Apart from these specific categories of protected areas, others natural areas can be protected. Thus, the law of forests provides for the protection of zones bordering rivers and water bodies (lakes)[125].

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[120] Decreto Nº 35.369/MINAET Regulación de nuevas categorías de manejo para Áreas Marinas Protegidas (18/05/09)
[121] Article 35, Ley Orgánica del Ambiente No. 7554 (04/10/1995)
[122] Decreto Nº 24.282/MO/MAG/MIRENEM Categoría de área marina de uso multiple (18/07/95)
[123] Article 73, Ley sobre la zona maritime terrestre, ley 6043, (02/03/77)
[124] Decreto Ejecutivo No. 24483-MP-MAG-MIRENEM establece AMUM Pacifico Norte y Sur Golfo Nicoya Caribe Norte y Sur Isla del Coco (18/07/95)
[125] Article 33, Ley Forestal No. 7575 (05/02/96)

- Governance types

Protected areas can be public (State or/and municipality) but also private according to article 60 of the law on biodiversity.

Regarding participation in the management of protected areas, the law on environment requires the State and municipalities to foster public participation in decisions and actions aimed at improving or protecting the environment[126]. Such a statement might include the involvement of the public in the protection of protected areas. The law on biodiversity asserts that the participation of communities in the conservation and sustainable use of biological diversity should be prompted[127]. But there is no special provisions regarding the co-management of protected areas.

Conservation of biodiversity

Each category of protected areas has its own objectives and benefits from their own regulations of activities.

For example, several prohibitions applied within national parks, such as cutting trees, collecting plants, introducing exotic species, etc[128]. Moreover, the exploitation of subsoil resource is prohibited within national parks and biological reserves. A permit is required if the exploitation is carried out in forest reserves.

Access to biodiversity, protection of traditional knowledge and Benefit-sharing[129]

The law on biodiversity regulates the access of genetic resources and provides for the protection of related knowledge. The main principles embrace the prior informed consent, the right for local communities and indigenous people to oppose to the access of their resources and knowledge for cultural, spiritual, economic, social or other grounds[130]. The law puts in place a system of licence to carrying out bioprospection activities. It also protects the sui generis intellectual property rights of communities and indigenous people[131]. These aspects have been specified by decree[132]. It also regulates "the fair and equitable distribution of the social, environmental and economic benefits".

4.4.2.4 Indigenous People's rights

[126] Article 6
[127] Article 101
[128] Article 8, Ley de creación del servicio Parques Nacionales No. 6084_(17/08/77)
[129] See (Jorge) CABRERA-MEDAGLIA, "Costa Rica: Legal Framework and Public Policy" pp.101-121 in Carrizosa, Santiago, Stephen B. Brush, Brian D. Wright, and Patrick E. McGuire (eds.) 2004. *Accessing Biodiversity and Sharing the Benefits: Lessons from Implementation of the Convention on Biological Diversity*. IUCN, Gland, Switzerland and Cambridge.
[130] Article 66 Ley de Biodiversidad No. 7788
[131] Article 82, Ley de Biodiversidad No. 7788
[132] Decreto No. 31514-MINAE, Normas Generales para el acceso a los elementos y Recursos Genéticos y Bioquímicos de la Biodiversidad. Gaceta 214, (15/12/03)

Article 33 of the Constitution guarantees the equality and the prohibition of any discrimination. Therefore, indigenous people should not be discriminated and shall benefit from the all gamut of human Rights prescribed by the Constitution and International agreements". Costa Rica has been a party to the ILO Convention concerning Indigenous and Tribal Peoples in Independent Countries, N°169 since 1993; it applies directly to the national legal framework. Therefore, indigenous people can use these two recourses to defend their rights. Indeed, the Constitutional Chamber issued a decision acknowledging the constitutional rank of the ILO Convention, and all its provisions[133].

A circular for judges specifies some practical rules to support the access to justice of indigenous peoples[134].

The only mention of indigenous people in the Constitution is founded in article 76, which states that Spanish is the official language but the State look after the conservation and development of national indigenous languages.

A specific law to indigenous people was enacted in 1977. Article 1 defines indigenous as "las personas que constituyen grupos étnicos descendientes directos de las civilizaciones precolombinas y que conservan su propia identidad". This law also creates indigenous reserves (see above) where the lands belong exclusively to indigenous people and cannot be sold to non indigenous peoples.

[133] Point 23, Human Rights Committee, Fifth Periodic Report, Costa Rica, CCPR/C/CRI/5, 6 November 2006

[134] Circular No 10-09 : Reglas Prácticas para Facilitar el Acceso a la Justicia de las Poblaciones Indígenas (05/02/09)

5. NEXT STEPS - EXAMINING THE EFFECTIVENESS OF GOVERNANCE SYSTEMS

INTRODUCTION

This report has sought to identify the existing governance structures that are in place within the four LiveDiverse case study areas. Such an assessment provides a baseline by which to conduct a more in-depth examination into the effectiveness of these governance systems. The report has also outlined the methodology that will be used in these studies, and stressed that law, policy, actors and institutions are all part of the complex system of biodiversity and livelihoods governance. The purpose of this section is to outline how we will define effectiveness and how that analysis of effectiveness might be conducted. Ultimately, the analysis of governance effectiveness will provide the basis by which WP9 can achieve its primary objective, namely to formulate policy recommendations for the case study areas (WT9.5/ D9.1).

5.1 RESEARCH FOCUS: EFFECTIVENESS, GOVERNANCE SYSTEMS AND PROTECTED AREAS

The focus of the research for WP9 will be placed on three key aspects, namely *effectiveness*, *governance systems* and *protected areas*. Each of these aspects will therefore be discussed below.

5.1.1 Effectiveness

Effectiveness can mean different things to different disciplines (Kütting 2000). A prerequisite to examining the effectiveness of governance systems within the LiveDiverse project is therefore to come up with a working definition. Taking our point of departure in the project aims we can see that effectiveness can be defined as the improvement of legal and policy mechanisms that protect biodiversity while at the same time improving livelihoods for rural populations in the case areas. We are basically attempting to formulate and provide recommendations on how to improve governance systems in these fields. Three meanings of effectiveness can be identified within the literature related to governance systems, ie., legal, behavioural and problem-solving (Bodansky 2009). *Legal* effectiveness essentially examines whether international laws are *implemented*, and *complied* with. *Implementation*, a key aspect of legal effectiveness, is defined as, "measures that states take to make international accords effective in their domestic law" (Brown Weiss and Jacobson 1999). *Compliance* goes one step further in considering whether actor behaviour is in fact in line with the legal commitments (Chambers 2008).

The Millennium Ecosystem Assessment maintains that, "assessing the potential for and/or evidence of compliance is an essential first step in evaluating effectiveness of responses (Fisher 2005). However, a focus on *legal* effectiveness only provides part of the story. As Bodansky cautions,

> "A high degree of compliance (or even perfect compliance) might only mean that an international environmental regime is unambitious and does not require states to do much, if anything, to change their behaviour. Conversely a low-compliance rate might result from overly ambitious treaty goals, not from the treaty's lack of positive effect."(Bodansky 2009)

An evaluation of effectiveness must therefore move beyond legal effectiveness to also consider *behavioural* effectiveness. *Behavioural* effectiveness can be defined as the role that a particular instrument plays in influencing the behaviour of those who cause or can ameliorate a particular problem (Victor D. 1998).

The focus on behavioural effectiveness is crucial given the nature of governance systems. It is not possibly for governance systems to directly influence biophysical factors, e.g. water quality, species loss, etc. Such systems can only *directly* influence actor behaviour, which in turn can affect biophysical factors. Recognition of this limitation of the governance system, is important in terms of analyzing causality between various factors. From a conceptual standpoint, what must be determined is, firstly, whether governance systems influence actor behaviour, and if so, secondly, whether such an influence has a favourable impact on the biophysical environment. The second aspect of this determination can be termed *problem-solving* effectiveness.

Implementation	Compliance	Effectiveness (Behavioural)	Effectiveness (Problem-solving)
Formal implementation of instruments, where necessary, through additional regulation	Actions of relevant actors are in accordance with their rights and obligations	Instruments have had a positive impact on shaping actor behaviour	Instruments have had a positive impact on resolving the problem

Table 1 – Spectrum of implementation, compliance and effectiveness

5.1.2 Governance systems

Governance systems can be categorized as systems that encompass the laws, policies, organizations and actors applicable to a specific area [LINK TO PREVIOUS GOVERNANCE DISCUSSION]. As so defined, the term *governance system* shares a lot of commonalities with the concept of *regimes*, (see section on policy and institutions) the latter being defined as, "a set of explicit or implicit principles, norms, rules, and decision making procedures around which actor expectations converge in a given issue-area (Krasner 1982). LiveDiverse will therefore be able to build upon the body of literature that has previously sought to examine the effectiveness of regimes (Young 2008).

Within the scope of the definition of *governance systems* it is important to emphasis that there are often multiple levels ranging from the local to the international that may have a particular influence on effectiveness. The way in which these laws, policies, organizations and actors interact both horizontally, e.g. between national ministries, or vertically, e.g. between international laws and local communities, can have a significant impact on the effectiveness of the governance system.

It is also important to recognize that both process and substantive norms are important aspects of the system. For example, it is not sufficient to look solely at the standard set out within a particular law or policy. An examination of the

effectiveness of governance systems must also be sensitive to the process by which such a standard is adopted and implemented, including who participated within that process (Franck 1988).

5.1.3 Protected areas

The IUCN define *protected areas* as "clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Dudley 2008). Within all four of the LiveDiverse case study areas, the governance system for protected areas is the most appropriate system by which to govern sustainable livelihoods and biodiversity conservation. Protected areas are seen as the cornerstones of biodiversity conservation and critical for the achievement of the 2010 biodiversity target and the Millennium Development Goals (CBD, 2010).

Four main types of governance systems for protected areas have been identified: (i) government managed protected areas (at various levels); (ii) co-managed protected areas (in various forms and including transboundary PAs; (iii) private protected areas (for profit or not for profit); and (iv) community conserved areas (Borrini-Feyerabend, Pimbert et al. 2004). Within the context of the case studies, a key challenge for the LiveDiverse will be to understand which type of governance system works well where, and why.

Whilst the focus of the analysis in LiveDiverse will be the governance system for protected areas, it is important to note that such a study will not be confined to specific laws, policies and organization related to protected areas. The analysis must also take account of broader laws, policy and organisations that may influence the governance of protected areas, e.g. international trade restrictions on certain species.

5.2 EXAMINING THE EFFECTIVENESS OF GOVERNANCE SYSTEMS FOR PROTECTED AREAS: METHODOLOGICAL ISSUES

The conceptual and methodological approach to how the effectiveness of the governance systems for protected areas will be developed in significant detail, and in collaboration with all the LiveDiverse partners, over the next couple of months. However, an outline of the methodological approach proposed will be offered here.

The analysis of the effectiveness of governance systems for protected areas will encompass a number of phases, namely:

Phase one: international law and policy related to governance systems for protected areas

As discussed in section 3, a myriad of international laws and policies relating to sustainable livelihoods and biodiversity conservation have been adopted. In relation to protected areas specifically, the 1992 Biodiversity Convention requires all contracting parties to, "as far as possible and as appropriate… [e]stablish a system of protected areas or areas where special measures need to

be taken to conserve biological diversity" (Biodiversity Convention, 1992). Similar obligations can be found in other international instruments, including the 1971 Convention on Wetlands and the1972 UNESCO World Heritage Convention.

A range of policies that seek to articulate a common concept of good protected area governance has supplemented these international agreements. The Convention on Biological Diversity Programme of Work on Protected Areas, for example, stresses, *inter alia,* the need to protect indigenous, local and mobile communities living close to relevant biodiversity, in full respect of their human rights; equity in sharing the costs and benefits of protected area management; enhanced local capacity to influence decisions, built on freedom of association and speech; legitimate processes for conflict resolution; attributing management responsibility and authority to institutions closes to the resources at stake; ensuring a transparent flow of information on processes and institutions, with decision-makers assuming responsibility for their choices; meeting the needs and concerns of all stakeholders according to agreed plans, while making a wise use of resources; and grounding long-term conservation strategies on ecological, historical, social and cultural complexities (Borrini-Geyerabend).

However, there remains a significant gap between what is included within the international laws and policies and what happens on the ground. The purpose of this phase will therefore be to build upon the assessment of the international laws and policies outlined in section 3 of the report, in order to better understand the effectiveness of these international architecture. The focus of the research will therefore be on a number of aspects:

(i) Normative content – to what extent are the applicable laws and policies legally binding? This analysis includes consideration of the legal status of particular agreements, the extent to which particular provisions confer rights and obligations on contracting parties, the precision of a particular right or obligation, and the linkages between rules and principles (both within a particular instrument and between instruments)
(ii) Legitimacy – picking up on the work of Franck (Franck 1988) the analysis will also consider how the process by which particular laws and policies were adopted might affect their *compliance pull.*

Such an approach will build upon the work conducted by Brown Weiss and Jacobson related to the model of factors that affect implementation, compliance and effectiveness (Brown Weiss and Jacobson 1999).

Phase Two: National implementation and compliance

Based upon section 4 of this report, the focus of the second phase of the work will be to consider whether the applicable international law and policy related to the governance of protected areas has been implemented and complied with at the national level.

The first part of this phase will involve a formal legal analysis to determine whether the appropriate international laws and policies related to protected areas have been transposed into national legislation. The second part of the work will then seek to analyze whether such national laws are complied with,

and if not, why not. Where laws have not been complied with, the research will, in close collaboration with the relevant stakeholders, examine the likely political, institutional, economic, social and environmental barriers to compliance.

Phase Three: Behavioral and problem-solving effectiveness

The focus of the third phase of the research will firstly be to determine - in close collaboration with key stakeholders - what an effective governance system for protected areas might look like within each of the case study areas. For this purpose effectiveness will be defined in terms of problem-solving effectiveness, namely that the governance system has the capacity to sustain livelihoods and conserve biodiversity. Working back from this hypothetical notion of an effective governance system, the research will seek to identify possible political, institutional, economic, social and or environmental barriers that might hinder the attainment of an *effective* system. This aspect of the research will therefore tie in closely with scenario work conducted as part of Work Package 8.

Recommendations

Finally the research will seek to develop recommendations as to how the barriers to implementing an effective governance system within each of the case studies areas might be overcome. These recommendations might include measure to better implement existing laws and policies, suggested revisions to laws and policies, or proposals for additional instruments.

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